



## Certification Page Regular and Emergency Rules

<b>1. General Information</b>		
a. Agency/Board Name <i>See attached list for references</i> <b>Department of Environmental Quality</b>		
b. Agency/Board Address <b>122 W. 25th Street</b>	c. Agency/Board City. <b>Cheyenne</b>	d. Agency/Board Zip Code <b>82001</b>
e. Name of Contact Person <b>Bob Doctor</b>	f. Contact Telephone Number <b>307-473-3468</b>	
g. Contact Email Address <b>bob.doctor@wyo.gov</b>	h. Adoption Date: <b>March 14, 2013</b>	
i. Program(s) <i>See attached list for references</i> <b>Solid and Hazardous Waste Division</b>		
<b>2. Rule Type and Information</b>		
a. These rules are: <input type="checkbox"/> <b>Emergency Rules</b> <i>(After completing all of Section 2, proceed to Section 5 below)</i> <input checked="" type="checkbox"/> <b>Regular Rules</b>		
b. Choose all that apply: <input checked="" type="checkbox"/> <b>New Rules*</b> <input checked="" type="checkbox"/> <b>Amended Rules</b> <input type="checkbox"/> <b>Repealed Rules</b> <i>* "New" rules means the first set of regular rules to be promulgated by the Agency after the Legislature adopted a new statutory provision or significantly amended an existing statute.</i>		
If "New," provide the Enrolled Act number and year enacted: <b>Senate Enrolled Acts 58 and 71, Sixty-First Legislature of the State of Wyoming 2011 General Session</b>		
c. Provide the Chapter Number, and Short Title of Each Chapter being Created/Amended/Repealed <i>(if more than 5 chapters are being created/amended/repealed, please use the Additional Rule Information form and attach it to this certification)</i>		
Chapter Number: <b>1</b>	Short Title: <b>General provisions</b>	
Chapter Number: <b>2</b>	Short Title: <b>Municipal Solid Waste Landfill Regulations</b>	
Chapter Number: <b>7</b>	Short Title: <b>Financial Assurance Requirements</b>	
Chapter Number:	Short Title:	
Chapter Number:	Short Title:	
d. <input checked="" type="checkbox"/> The Statement of Reasons is attached to this certification.		
e. If applicable, describe the emergency which requires promulgation of these rules without providing notice or an opportunity for a public hearing:          		
<b>3. State Government Notice of Intended Rulemaking</b>		
a. Date on which the Notice of Intent containing all of the information required by W.S. 16-3-103(a) was filed with the <b>Secretary of State</b> : <b>January 7, 2013</b>		
b. Date on which the Notice of Intent and proposed rules in strike and underscore format were provided to the <b>Legislative Service Office</b> : <b>January 7, 2013</b>		
c. Date on which the Notice of Intent and proposed rules in strike and underscore format were provided to the <b>Attorney General</b> : <b>January 7, 2013</b>		

**4. Public Notice of Intended Rulemaking**

a. Notice was mailed 45 days in advance to all persons who made a timely request for advance notice.  Yes  No  N/A

b. A public hearing was held on the proposed rules.  Yes  No

If "Yes:"	Date: March 14, 2013	Time: 1:30 p.m.	City: Casper	Location: University of Wyoming Outreach Building, 951 North Poplar
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**5. Final Filing of Rules**

a. Date on which the Certification Page with original signatures and final rules were sent to the **Attorney General's Office** **March 22, 2013**  
**for the Governor's signature:**

b. Date on which final rules were sent to the **Legislative Service Office:** **March 22, 2013**

c. Date on which a PDF of the final rules was electronically sent to the **Secretary of State:** **March 22, 2013**

**6. Agency/Board Certification**

The undersigned certifies that the foregoing information is correct.

Signature of Authorized Individual	
Printed Name of Signatory	Todd Parfitt
Signatory Title	Director
Date of Signature	March 22, 2013

**7. Governor's Certification**

I have reviewed these rules and determined that they:

1. Are within the scope of the statutory authority delegated to the adopting agency;
2. Appear to be within the scope of the legislative purpose of the statutory authority; and, if emergency rules,
3. Are necessary and that I concur in the finding that they are an emergency.

Therefore, I approve the same.

Governor's Signature	
Date of Signature	

**Distribution List:**

**Attorney General**

1. Statement of Reasons;
2. Original Certification Page;
3. Summary of Comments (regular rules);
4. Hard copy of rules: clean and strike/underscore; and
5. Memo to Governor documenting emergency (emergency rules).

**LSO**

1. Statement of Reasons;
2. Copy of Certification Page;
3. Summary of Comments (regular rules);
4. Hard copy of rules: clean and strike/underscore;
5. Electronic copy of rules: clean and strike/underscore; and
6. Memo to Governor documenting emergency (emergency rules).

**SOS**

1. PDF of clean copy of rules; and
2. Hard copy of Certification Page as delivered by the AG.

BEFORE THE  
ENVIRONMENTAL QUALITY COUNCIL  
STATE OF WYOMING

IN THE MATTER OF )  
REVISIONS TO CHAPTERS 1, 2, )  
AND 7 OF THE SOLID WASTE )  
RULES AND REGULATIONS )

**STATEMENT OF PRINCIPAL REASONS FOR ADOPTION**

The Environmental Quality Council, pursuant to the authority vested in it by Wyoming Statutes §35-11-112(a)(i), is adopting revisions to Chapters 1, 2, and 7 of the Solid Waste Rules and Regulations. These changes to the Solid Waste Rules and Regulations are being proposed pursuant to Wyoming Statutes §35-11-503. The principal reasons for these changes are:

1. To adopt provisions from Senate Enrolled Acts 58 and 71, Sixty-First Legislature of the State of Wyoming 2011 General Session, codified in the Environmental Quality Act at W.S. § 35-11-103(d), 35-11-103(h), 35-11-502(o) through (r), 35-11-523, 35-11-526, and 35-11-527.
2. To simplify and streamline permitting requirements for solid waste transfer, treatment and storage facilities.
3. To simplify and streamline permitting requirements for facilities storing used oil to be recycled or burned for energy recovery.
4. To update and improve closure and post-closure financial assurance cost calculations for low volume/low hazard facilities and for municipal solid waste landfills participating in the State Guarantee Trust Account.
5. To incorporate into the rule the statutory process for issuing renewal and closure permits for municipal solid waste management facilities, except low volume or low hazard solid waste treatment, transfer, processing and storage facilities.
6. To revise other sections of the rule as needed to support and implement the changes above.
7. To expanded and clarify standards for facilities that may be exempt from a permit or the need to obtain a waste management authorization.

8. To update municipal solid waste landfill location standards to comply with federal requirements for separation from airports and Wyoming Sage-Grouse protection standards.
9. To add landfill gas reporting standards to the annual reporting requirements for municipal solid waste landfills and streamline reporting requirements for landfill operators.

The Department is aware of the need for other changes to the solid waste rules. However, we are constraining this rulemaking to the changes above in order to focus on the transition to lifetime permits and to assist communities transitioning from landfills to waste transfer facilities. After this rule change is completed, the Department intends to begin a broader rulemaking to address other issues.

Senate Enrolled Acts 58 and 71, codified in the Environmental Quality Act at W.S. §35-11-103(d), 35-11-103(h), 35-11-502(o) through (r), 35-11-523, 35-11-526, and 35-11-527.

The following standards from Senate Enrolled Acts 58 and 71 are being incorporated into Chapters 1 and 2 of the Solid Waste Rules and Regulations:

1. Standards for issuing, renewing and amending lifetime permits for municipal solid waste landfills.
2. Definitions for “aquifer”, “groundwater”, and “lifetime” that apply to municipal solid waste landfills and definitions for “composite liner” and “leachate” which apply to solid waste management.
3. Annual reports which must be filed by the operators of municipal solid waste landfills with lifetime permits.
4. Annual inspections of municipal solid waste landfills with lifetime permits.
5. Performance based evaluation and design criteria for municipal solid waste landfills.

Streamlined permitting requirements for solid waste transfer, treatment and storage facilities:

The operators of solid waste transfer, treatment and storage facilities may be required to submit detailed permit applications, simplified low volume/low hazard permit applications, or the administrator may exempt certain facilities from a permit or any requirement to obtain a waste management authorization under the Solid Waste Rules and Regulations. The activities

that can be conducted under low volume/low hazard permits and the activities which may be considered exempt have been expanded. These changes are intended to apply an appropriate level of regulatory requirements and streamline the permitting process for communities who are closing small local landfills and transferring waste to larger regional landfills. These changes are also expected to help increase waste reduction measures such as composting and recycling and minimize the amount of waste that must be transported to regional landfills.

Streamlined permitting requirements for facilities storing used oil to be recycled or burned for energy recovery:

Facilities storing used oil to be recycled or burned for energy recovery are subject to a number of sometimes duplicative regulatory requirements in addition to the requirements found in the Solid Waste Rules and Regulations. In particular, Chapter 12, Sections 9 – 18 of the Wyoming Hazardous Waste Rules and Regulations contain extensive used oil management standards. However, the Wyoming Hazardous Waste Rules and Regulations do not include financial assurance requirements for the closure of used oil storage facilities. The rule change requires low volume/low hazard permits and financial assurance for the closure of commercially operated used oil transfer, treatment and storage facilities storing greater than 10,000 gallons of used oil.

Closure and post-closure financial assurance cost calculations for low volume/low hazard facilities and municipal solid waste landfills participating in the State Guarantee Trust Account:

The closure costs currently contained in Chapter 7 of the Solid Waste Rules and Regulations do not adequately reflect costs or site-specific closure and post-closure activities. The rule change process makes it impossible to adjust these costs to reflect changing market conditions in a timely and accurate way. Therefore, this rule change removes cost estimates from the rule and proposes moving them to a guidance document which can be more effectively changed to reflect accurate costs and site-specific factors. The basis for this change is rooted in the statutory responsibility of the director to determine the amount of bonds. W.S. §35-11-109(a)(xiii) states that the director shall “determine the amount of bonds to be posted by the operator to insure reclamation of any affected lands.” Also, W.S. §35-11-515(d)(i) and (ii) requires that operators of municipal landfills participating in the state guarantee trust account either “prepare a closure and post closure cost estimate in accord with rules of the council” (Chapter 7, Section 3(e)(i) and (ii)) or “agree to use a standard closure and post closure cost estimate prepared by the director.”

In addition, the current formula for calculating annual payments into the State Guarantee Trust Account does not give credit for previous payments. The formula has been revised to give credit for previous payments.

### Statutory permit process:

When a permit application is received W.S. §35-11-502 requires the administrator to notify the applicant within sixty (60) days of submission of the application whether or not it is complete. After the application is determined complete, the applicant must complete the first of two rounds of public notice. The administrator shall review the application and, unless the applicant requests a delay, advise the applicant in writing within ninety (90) days from the date of determining the application is complete that a proposed permit is suitable for publication. Following this notification the applicant must complete a second round of public notice. The current Solid Waste Rules apply this process to new permits, but not to renewal and closure permits. Since the statutory permit process does not differentiate between new, renewal, and closure permits, the rule has been changed to use the statutory permit process for new, renewal, and closure permits.

### Miscellaneous supporting changes:

A number of minor changes are needed to support and implement the more significant changes above. These changes are summarized below.

1. Revised the definition of “cell” to accommodate the new statute and the use of alternate routine cover material.
2. Added the definition of “existing unit” for clarification and for consistency with W.S. §35-11-527(a). The term “unit” has also been added in key areas of the rule to accommodate new statutes.
3. Added the definition of “green waste” for clarification related to the simplification of transfer station regulations.
4. Clarified the definition of “lateral expansion” for consistency with W. S. §35-11-527(a).
5. Added the definition of “municipal solid waste landfill” to conform to new statutes which apply to municipal solid waste landfills. These facilities were formerly called “sanitary landfills”.
6. Added the definition of “municipal solid waste landfill unit” because new performance based design standards apply to municipal solid waste landfill units. The definition is based on USEPA 40 CFR Part 258, Subpart A, paragraph 258.2 (7-1-10 edition)

7. Added the definition of “new municipal solid waste landfill unit” because new statutes include design standards for new municipal solid waste management units. This definition is based on 40 CFR Part 258, Subpart A, paragraph 258.2 . (7-1-10 edition)
8. Edited the definition of “sanitary landfill” to mean “municipal solid waste landfill” and changed “sanitary landfill” to “municipal solid waste landfill throughout the rule.
9. Changed the word “cell” to “unit” where needed to conform to new statutes.
10. Added the definition of “waste management unit boundary” because new statutes require that a relevant point of compliance in groundwater is established no more than 150 meters from the waste management unit boundary. This definition is based on 40 CFR Part 258, Subpart A, paragraph 258.2.
11. To facilitate effective application documents for facilities with lifetime permits, the rule was changed so that applications which were formerly needed to be presented in an order that conforms to the order of the rules may be submitted in an alternate format approved by the administrator.
12. Updated the rule to comply with statutory municipal solid waste landfill permit amendment requirements.
13. Updated permit transition requirements for municipal solid waste landfills.

The Council finds that these regulations are reasonable and necessary to accomplish the policy and purpose of the Act as stated in W.S. §35-11-102, and they have been promulgated in accord with the rulemaking provisions of the Wyoming Administrative Procedures Act.

EXECUTED THIS 14 DAY OF March, 2012<sup>3</sup>

FOR THE ENVIRONMENTAL QUALITY COUNCIL



Chairperson

## **RESPONSE TO COMMENTS**

### **Proposed Revisions to Chapters 1, 2, and 7 of the Solid Waste Rules and Regulations Principal Reasons Dated November 7, 2012**

Date: March 1, 2103

#### **Chapter 1 Comments**

##### Fremont County Solid Waste Disposal District

The District commented on Chapter 1, Section 2(e)(iii) - General Permit Application Procedures and Chapter 1, Section 2(g)(iii) - General Permit Application Procedures which require renewal and closure permit applications to be submitted twelve (12) months before permits expire or before the anticipated facility closure respectively. The District recommended that applications be submitted 6 months in advance, citing requirements in other states.

##### Response to the District's comment

The application review and permit issuance processes are included in W.S. §35-11-502. Given these Environmental Quality Act statutory timeframes, completion of the statutory application and permit issuance process can take at least 232 days. Additional time is commonly needed to address application deficiencies and related additional application review cycles. These additional application review cycles can add 60-120 days to the application process and the entire process could take 262- 352 days or more.

The existing rule allows applications to be submitted between 270 and 180 days before an existing permit expires. Department experience indicates that application submittal 270 to 180 days before permit expiration isn't realistic with respect to completion of the application review and permit issuance process; therefore, many permits expire before new permits are issued and facilities operate without valid permits. Administrative orders and notices of violation are necessary to return operators to compliance until permits are issued.

Based on past experience and to ensure that the statutory permit application review and permit issuance requirements are met, the Department believes the requirement that facilities (without lifetime permits) submit renewal or closure permit applications at least twelve (12) months prior to the expiration of the existing permit or before the anticipated facility closure, respectively, is appropriate. Therefore, the Department is not proposing a change to the draft rule in response to this comment.

Fremont County Solid Waste Disposal District

The District commented on Chapter 1, Section 2(e)(iii) - General Permit Application Procedures which require submittal of a lifetime permit renewal application three years prior to the expiration of a lifetime permit. The District noted that this is a statutory requirement.

Response to the District's comment

Because the rule reflects a direct statutory requirement [at W.S. §35-11-502(q)(ii)], no change to the rule is proposed.

**Chapter 2 Comments**

Fremont County Solid Waste Disposal District

The District commented on Chapter 2, Section 2(a)(i)(A) II and III and Chapter 2, Section 2(a)(iii)(A) which require permit renewal applications and closure permit applications to be submitted twelve (12) months in advance.

Response to the District's comment

Based upon the statutory requirements for application review and issuance of renewal and closure permits discussed above, no changes to the draft rule are proposed.

Fremont County Solid Waste Disposal District

The District expressed concern on the details required for the twenty-five (25) year operating permit in Chapter 2, Section – Design and Construction Standards, item 4(k)(vii). In summary, the District believes that submitting "... this level of detail as far as 25 years in advance is an immense waste of effort and money. A general conceptual layout should be adequate for a permit submitted with that much anticipated life. A more appropriate approach, successfully adopted in numerous other states, would be to provide conceptual design drawings with life estimates and then asking all operators to submit construction ready plans 6-months in advance to their regulator for review and approval prior to the actual construction. The solid waste industry is an ever-changing field with substantial changes in materials and concepts on a regular basis. This legislation would force every operator into countless major and minor permit amendments to update their permit to the current "state of the art" design. Again, these amendments would have significant impacts on operating budgets. The abundance of major and

minor permits will also consume a great amount of the regulatory agencies time and materials for review.”

#### Response to the District’s comment

There was a great deal of discussion about this matter at the September 21, 2012, Water and Waste Advisory Board meeting. Stakeholders at the meeting, including consultants, landfill operators, and the Department, worked together to reach agreed upon language now proposed at Chapter 2, Section 4(k)(vii). The Department believes that the “detailed design plans” described in the proposed rule are analogous to the “conceptual design drawings” that the District recommends. Stakeholders generally agreed that detailed design plans are not analogous to construction ready plans. Note that the draft text in Section 4(k)(vii) is consistent with existing requirements in Chapter 2, Section 2(b)(iii) which require a detailed description of the facility liners, caps, berms, or other containment devices.

As the amended proposed rule is written, Chapter 2, Section 4(k)(vii) clarifies that lifetime permit applications only need to contain detailed design plans and that additional or modified plans can be submitted at a later date. Because the Department believes the “detailed design plans” in the rule are analogous to the “conceptual plans” recommended by the District, no changes to the rule are proposed.

#### Fremont County Solid Waste Disposal District

The District commented on Chapter 2, Section 5 – Operating Standards, items (bb)(i) through (v) regarding the level of detail required in annual reports, noting that this is a legislative requirement.

#### Response to the District’s comment

Because annual reporting is a statutory requirement (at W.S. §35-11-523), no change to the draft rule is proposed.

### **Chapter 7 Comments**

#### Fremont County Solid Waste Disposal District

The District commented on Chapter 7, Section 9 – Closure and Post-Closure Account for Municipally-Owned Solid Waste Disposal Facilities, item (b) (iii). The District commented that “The proposed formula changes for the annual premiums can initially lower the annual premiums dues; however, as the sites grow closer to their closure timeframe, the annual

premiums will grow exponentially. The large payments required towards the end of the sites calculations may reach an amount not within their operating budgets.”

#### Response to the District’s comment

Under the State Guarantee Trust Account (W.S. §35-11-515) operators are required to estimate closure and post-closure costs every four (4) years. W.S. §35-11-515 (f) requires that “Each participating facility shall pay annually into the account a premium, the sum of which at facility closure will equal no less than three percent (3%) of the sum of the closure and post closure costs estimates specified in subsection (d) of this section.” Unfortunately, the formula previously in the rule did not give credit for past payments into the account. Therefore, after every four year cycle, operators began making payments toward the same total amount due. It appears that this is the concern expressed by the District.

In addition, other commenters have raised similar issues on how payments to the State Guarantee Trust Account (SGTA) should be calculated. The Department is proposing to address the comments on this issue from the District, the City of Cheyenne and the City of Sundance, as discussed below.

#### City of Cheyenne and the City of Sundance

The Cities of Cheyenne and Sundance offered similar comments regarding Chapter 7, Section 9(iii). The Cities commented that the changes proposed by the Department have the potential to impose an additional financial burden on landfill operators that are making good faith efforts to secure funding and complete closure and post-closure activities. Landfill operators, who are securing funding for these activities, reduce the potential risk that funds will need to be expended from the SGTA to complete closure and post closure activities. To recognize and encourage landfill operators to secure funding for closure and post-closure activities, the Cities recommended changes to the proposed rule that would allow landfill operators to reduce their closure and post-closure cost estimates for the SGTA by the amount of funds, grants, or loans that have been secured to complete these activities, before they calculate their annual payment amount. Revised regulatory language was suggested by the Cities’ to address this issue: “Closure and post-closure costs may be reduced by funds, grants, or loans secured by the operator for closure and post-closure activities prior to calculating the annual payment amount.”

#### Response comments by the Cities of Cheyenne and Sundance:

The Department recognizes this concern, especially in light of the fact that premium payments will increase when more accurate closure and post-closure costs are calculated. The Department agrees that landfill operators should be encouraged to set aside their own funds and that doing so

reduces the possibility that the State of Wyoming will need to expend funds from the SGTA to close landfills and sue local governments to recover costs per the requirements of W.S. §35-11-515(m). Therefore, the Department recommends that the formula proposed at Chapter 7, Section 9(b)(iii) be replaced by the following:

*(iii) Calculate the annual amount to be paid to the account using the following procedure:*

*(A) Calculate three percent (3%) of the sum of closure and post-closure costs using the following formula:*

*3% of the sum of closure and post-closure costs = (0.03(Closure cost – the operator's accumulated net assets earmarked for payment of the operator's closure costs)) + (0.03(Post-closure cost – the operator's accumulated net assets earmarked for payment of the operator's post-closure costs))*

*(I) The facility operator shall account for closure and post-closure liabilities and costs in accordance with Generally Accepted Accounting Principles and certify to the earmarking of the accumulated net assets, subject to audit.*

*(B) Calculate the balance due to the account by deducting the total of previous payments to the account from 3% of the sum of closure and post-closure costs.*

*Balance due = 3% of the sum of closure and post-closure costs – the total of previous payments to the account*

*(C) Calculate annual payments to the account by dividing the balance due by the years of remaining disposal capacity.*

*Annual payment = Balance due / years of remaining disposal capacity*

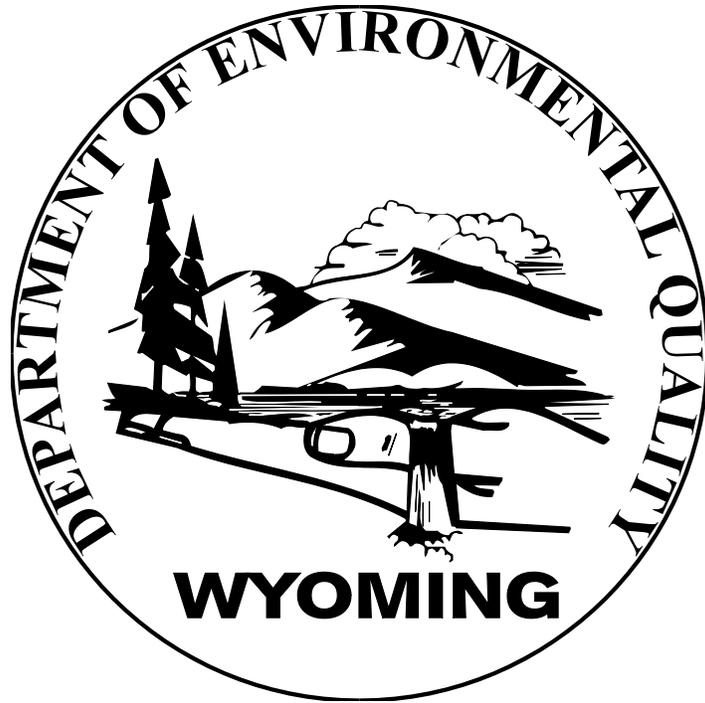
Note that the Department consulted internal accounting staff when preparing this proposed rule. The language used is from §L10.109 (Reporting MSWLFs in Government Fund Financial Statements) from "Codification of Governmental Accounting and Financial Reporting Standards" published by Governmental Accounting Standards Board.

If the Council chooses not use the approach above, the formula currently in the draft rule will need to be corrected and replaced with the following formula:

*Annual Payment Amount = ((0.03 X (closure cost + post-closure cost)) – the total of previous payments to the account) / years of remaining disposal capacity.*

The Department apologizes for any confusion this may have caused.

- END -



**SOLID WASTE  
RULES AND REGULATIONS**

**Chapter 1**

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CHAPTER 1

GENERAL PROVISIONS

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## CHAPTER 1

### GENERAL PROVISIONS

#### Section 1. In General.

(a) Authority: The authority for the rules and regulations promulgated in this chapter is the Wyoming Environmental Quality Act, W.S. 35-11-101 et seq. Specific sections of the act that provide authority for this regulation include W.S. 35-11-102, 35-11-109 and Article 5, Solid Waste Management, 35-11-501 et seq.

(b) Applicability: The rules and regulations contained herein shall apply to any person, government or governmental subdivision, corporation, organization, partnership, business trust, association, district or other entity involved in any aspect of the management of solid waste. These regulations are effective immediately upon filing with the Secretary of State.

(c) Objective: The objective of these rules and regulations is to provide minimum standards for the management of solid waste in order to carry out the policy and purpose of the Wyoming Environmental Quality Act, W.S. 35-11-102.

(d) Severability: If any section or provision of these regulations, or the application of that section or provision to any person, situation, or circumstance is adjudged invalid for any reason, the adjudication does not affect any other section or provision of these regulations or the application of the adjudicated section or provision to any other person, situation, or circumstance. The Environmental Quality Council declares that it would have adopted the valid portions and applications of these regulations without the invalid part, and to this end the provisions of these regulations are declared to be severable.

(e) Definitions:

(i) For the purpose of these rules and

regulations, unless the context otherwise requires:

"Act" means the Wyoming Environmental Quality Act, W.S. 35-11-101 et seq.

"Applicant" means that person, as defined in the act, submitting an application to the administrator for a permit for a solid waste management facility, who shall be:

For a city owned facility, the city,

For a county owned facility, the county,

For a facility owned by any other public entity, that public entity,

For an individual, the individual,

For a corporation, the corporation,  
and

For a sole proprietorship or partnership, the partnership or proprietorship.

"Aquifer" means, in relation to all solid waste facilities except municipal solid waste landfills, a geologic formation, group of formations, or portion of a formation capable of yielding significant quantities of groundwater to wells or springs. For municipal solid waste landfills, "aquifer" means an underground geologic formation:

Which has boundaries that may be ascertained or reasonably inferred;

In which water stands, flows or percolates;

Which is capable of yielding to wells or springs significant quantities of groundwater that may be put to beneficial use; and

Which is capable of yielding to wells

or springs which produce a sustainable volume of more than one-half (1/2) gallon of water per minute.

"Asbestos-containing solid wastes" or "asbestos" means solid wastes containing greater than one percent (1%) by weight asbestos in any of the asbestiform varieties of: chrysotile (serpentine), amosite (cummingtonite, grunerite), crocidolite (riebeckite), anthophyllite, actinolite, or tremolite, and which may be considered friable asbestos.

"Buffer zone" means that portion of the solid waste management facility which is not used for waste management activities but is reserved for the placement and operation of monitoring equipment or for preventing public access during specific waste disposal events, such as the disposal of friable asbestos. The fire lane may be within the buffer zone.

"Cell" means compacted solid wastes that are enclosed by natural soil or other cover material within a trench, unit, or area-fill in a land disposal facility.

"Classification" means the specific type of solid waste management facility, as determined by the administrator, based upon waste type and volume of waste received.

"Clean wood" means untreated wood which has not been painted, stained, or sealed. Clean wood does not include treated railroad ties, treated posts, paper, or construction/demolition wastes containing nonwood materials.

"Closed facility" means a regulated facility at which operations have been properly terminated in accord with an approved facility closure plan on file with the Solid and Hazardous Waste Division or the Water Quality Division and complying with all applicable regulations and requirements concerning its stabilization.

"Closure" means the act of securing and stabilizing a regulated facility pursuant to the requirements of these regulations.

"Closure period" means the period of time during which a facility is completing closure. The closure period begins when the facility ceases receipt of wastes. The closure period ends when the administrator approves certification from a registered professional engineer confirming that the provisions of the closure plan have been carried out and that the facility has been closed in compliance with the closure standards specified in these rules and regulations.

"Collateral" means as related to self bonding the actual or constructive deposit, as appropriate, with the director of one or more of the following kinds of property to support a self bond:

A perfected, first-lien security interest in real property located within the State of Wyoming, in favor of the Wyoming Department of Environmental Quality which meets the requirements of Chapter 7,

Securities backed by the full faith and credit of the United States government or state government securities acceptable to the director. These securities must be endorsed to the order of, and placed in the possession of the director, or

Personal property located within the state, owned by the operator, which in market value exceeds \$1 million per property unit;

"Commercial solid waste management facility" means any facility receiving a monthly average greater than five hundred (500) short tons per day of unprocessed household refuse or mixed household and industrial refuse for management or disposal;

"Comparative balance sheet" means item amounts from a number of the operator's successive yearly balance sheets arranged side by side in a single statement;

"Comparative income statement" means an operator's income statement amounts for a number of

successive yearly periods arranged side by side in a single statement.

"Complete application" means a permit application that the administrator has determined to contain all the information required to be submitted by the regulations, in sufficient detail to allow a technical review of the information to commence.

"Composite liner" means a system consisting of two (2) components; the upper component must consist of a minimum thirty (30) mil flexible membrane liner (FML) and the lower component shall consist of at least a two (2) foot layer of compacted soil with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  centimeters per second. A flexible membrane liner components consisting of high density polyethylene (HDPE) shall be at least sixty (60) mil thick. The flexible membrane liner component shall be installed in direct and uniform contact with the compacted soil component.

"Construction/demolition landfill" means a solid waste management facility that accepts only inert construction waste, demolition waste, street sweepings and/or brush. This does not include garbage, liquids, sludges, paints, solvents, putrescibles, dead animals, friable asbestos, and hazardous or toxic wastes.

"Construction/demolition waste" includes but is not limited to stone, wood, concrete, asphaltic concrete, cinder blocks, brick, plaster and metal.

"Container" means any portable device in which a material is stored, transported, treated, disposed of or otherwise handled.

"Corrective action" means all actions necessary to eliminate the public health threat or environmental threat from a release to the environment of pollutants from an operating or closed regulated facility and to restore the environmental conditions as required;

"Cost-effective" means the selection of alternative responses taking into account total short-term and long-term costs of those responses including the costs

of operation and maintenance for the entire activity, the presence of naturally occurring hazardous or toxic substances and current or potential uses of the natural resources impacted, as determined by the administrator;

"Cover material" means soil or other suitable material that is used to cover compacted solid wastes in a land disposal facility.

"Current assets" means cash and assets that are reasonably expected to be realized in cash or sold or consumed within one (1) year or within the normal identified operating cycle of the business;

"Current liabilities" means debts or other obligations that must be paid or liquidated within one (1) year or within the normal identified operating cycle of the business. This shall also include dividends payable on preferred stock within one (1) quarter if declared, or one (1) year if a pattern of declaring dividends each quarter is apparent from the business' past practices;

"Decommissioning" means removing all liquids and accumulated sludges, and cleaning a storage tank for its intended reuse or disposal;

"Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any waste material into or on any land or water so that such waste material or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

"Existing facility" means any facility that was receiving solid wastes on or before September 13, 1989.

"Existing unit" means any municipal solid waste landfill unit receiving solid waste as of October 9, 1993.

"Facility" means the total contiguous area described in the permit application and which is occupied by any solid waste management area, unit, site, process, or system and the operation thereof including, but not

limited to, equipment, buildings, solid waste treatment, storage, transfer, processing, and disposal areas, buffer zones, monitor well systems, fire lanes, working area litter and access fences, systems for the remediation of releases to the environment, and perimeter access control fences. The term "facility" does not include contiguous or noncontiguous lands which may be owned or leased by the applicant which are not disturbed by solid waste management operations and which are external to the contiguous area occupied by the solid waste management area, unit, site, process, or system.

"Farming and ranching operation" means agricultural operations whose principal function is the growing of crops and the raising of livestock, but does not include concentrated animal feeding operations involving more than one-thousand (1,000) animal units. Concentrated animal feeding operations are facilities where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period and crops, vegetation forage growth, or post-harvest residues are not sustained over the normal growing season over any portion of the lot or facility. One-thousand (1,000) animal units equals 1,000 slaughter and feeder cattle, 700 mature dairy cattle, 2,500 swine each weighing over 55 pounds, 500 horses, 10,000 sheep or lambs, 55,000 turkeys, 30,000 laying hens or broilers, or 5,000 ducks.

"Final cover" means cover material that is used to completely cover the top of a land disposal facility and includes compacted soils, drainage layers, synthetic membranes, soil-cement admixtures, and topsoils.

"Fire lane" means an area which does not contain combustible materials, including vegetation, and which can be utilized to provide access to firefighting equipment.

"Fixed assets" means plants and equipment.

"Floodplain" means low land and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, that are inundated by the 100-year flood.

"Friable asbestos", means asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure, and includes previously nonfriable asbestos after such previously nonfriable asbestos becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.

"Garbage" means any putrescible solid or semi-solid animal and/or vegetable waste material resulting from the handling, preparation, cooking, serving and consumption of food.

"Green waste" means organic plant materials, such as yard trimmings, grass clippings, house and garden plants, tree trimmings, and brush. Green waste does not include other putrescible waste including, but not limited to food waste, animal waste, and manure.

"Groundwater" means, in relation to all solid waste facilities except municipal solid waste landfills, water below the land surface in a saturated zone of soil or rock. For municipal solid waste landfills, "groundwater" means any water, including hot water and geothermal steam, under the surface of the land or the bed of any stream, lake, reservoir or other body of surface water, including water that has been exposed to the surface by an excavation such as a pit which:

Stands, flows or percolates; and

Is capable of being produced to the ground surface in sufficient quantity to be put to beneficial use.

"Hazardous wastes" means those wastes that are defined as hazardous wastes in Wyoming Department of Environmental Quality Hazardous Waste Rules and Regulations, Chapter 2, Identification and Listing of Hazardous Waste.

"Incineration" means the controlled process by which combustible solid wastes are burned and altered to noncombustible gases and other residues. A solid waste incineration facility is considered to be a solid waste

management facility.

"Incorporated city or town" shall mean a "first class city" or a "town" as defined in W.S. 15-1-101(a).

"Industrial landfill" means a solid waste management facility utilizing an engineered method of land disposal primarily for industrial solid waste.

"Industrial solid waste" means solid waste resulting from, or incidental to, any process of industry, manufacturing, mining or development of any agricultural or natural resources.

"Irrevocable letter of credit" means an engagement, however named or described, by a bank made at the request of a customer (the operator and/or financially responsible parties for a permit or site), that the issuer will honor drafts or other demands for payment from the beneficiary (the State of Wyoming) upon compliance with the conditions specified in the letter of credit. The issuing party (a bank) guarantees that it will not withdraw the credit or cancel the letter before the expiration date. The customer cannot modify, revoke or repeal this letter of credit unless specified by the beneficiary.

"Land treatment facility" means a treatment facility or part of a solid waste management facility at which solid waste is applied onto the soil surface;

"Landfarm facility" means a facility or part of a facility at which solid wastes are treated and disposed by incorporation into existing soils, and which is subject to a post-closure period;

"Landfill" means a solid waste management facility for the land burial of solid wastes, utilizing an engineered method of controls to avoid creating a hazard to the public health, the environment, plants, or animals.

"Lateral expansion" of a facility means the horizontal enlargement of the boundaries of a solid waste management facility. Lateral expansion of a disposal unit

means the horizontal enlargement of the permitted waste boundaries of a disposal unit.

"Leachate" means liquid that has passed through or emerged from solid waste and contains soluble, suspended or miscible materials removed from such wastes.

"Liabilities" means obligations to transfer assets or provide services to other entities in the future as a result of past transactions.

"Lifetime" for municipal solid waste landfills means the estimated time to fill and close a municipal solid waste landfill, not to exceed twenty-five (25) years.

"Lower explosive limit (LEL)" means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25° Celsius and atmospheric pressure.

"Low hazard and low volume treatment, processing, storage, and transfer facility" means a solid waste management facility which accepts only solid wastes as described in this subsection. This provision does not apply to facilities whose owner or operator simultaneously owns or operates more than one such solid waste management facility within one (1) mile of each other.

Mobile transfer, treatment, and storage facilities.

Clean wood waste storage facilities: Facilities storing clean wood waste in storage piles with a combined base surface area larger than 10,000 square feet or containing greater than 100,000 cubic feet of clean wood waste. Clean wood waste at such facilities shall be stored no less than 100 feet from off-site structures, storm water shall be properly managed, and the pile shall not create a public or private nuisance.

Solid waste transfer, treatment, storage, and processing facilities: Solid waste transfer, treatment, storage, and processing facilities receiving 50 cubic yards or less of solid waste per day and occupying

no more than 5 acres, including a twenty foot buffer zone within a fenced facility boundary, which individually or in combination manage no more than the specified types and quantities of the following wastes:

Paper, cardboard, plastic, aluminum cans, glass, and metal, or other nonputrescible municipal solid wastes which may be specifically authorized by the administrator, for the primary purposes of transfer to a recycling facility or beneficial reuse in a manner approved by the administrator. This provision applies to the sorting, shredding, grinding, crushing, baling, and storage of these wastes prior to transfer to a recycling facility or approved beneficial reuse site; and

5,000 gallons of used oil or used oil generated by do-it-yourself used oil generators, if the used oil is stored to be recycled, reclaimed, or reused; and

5,000 gallons of used antifreeze, if the used antifreeze is stored to be recycled, reclaimed, or reused; and

1,000 scrap tires stored in compliance with standards in Chapter 8 of these rules and regulations, if the scrap tires are stored to be recycled, reclaimed, reused, or are destined for disposal at a permitted facility; and

Green waste and clean wood waste storage piles; and

Compost piles for green waste and manure operated in a manner that does not create odors, constitute a nuisance, or attract vectors; and

15,000 empty used drums; and

Household hazardous waste (HHW) collected no more frequently than quarterly collection days, provided that the HHW collected is removed from the site and transported to a permitted facility within thirty (30) days of receipt; and

50 cubic yards of electronic waste stored in containers; and

500 lead acid batteries, if the batteries are stored in an upright position and are not leaking, for the purpose of transfer to a recycling facility; and

100 cubic yards of construction and demolition waste stored in containers; and

150 cubic yards of mixed solid wastes stored in containers. Animal mortality managed at low hazard and low volume solid waste transfer, treatment, storage, and processing facilities shall be managed in mixed municipal solid waste or separate containers.

Commercially operated used oil management facilities: Used oil collection centers, aggregation points, transfer facilities, processors, re-refiners, burners, and used oil fuel marketers that store greater than 10,000 gallons of used oil to be recycled or burned for energy recovery, subject to the used oil management requirements contained in Chapter 12 of the Wyoming Hazardous Waste Rules and Regulations.

Facilities storing waste, other than construction/demolition waste, for transfer to a recycling facility: Facilities occupying no more than 10 acres and used only for the transfer, treatment, and storage of less than 500 tons received per day of paper, cardboard, plastic, aluminum cans, glass, metal, clean wood, and other nonputrescible municipal solid wastes which may be specifically authorized by the administrator, for the primary purposes of transfer to a recycling facility or beneficial reuse in a manner approved by the administrator. Unless all waste management occurs indoors, the facility shall have a twenty foot buffer zone/fire lane within a fenced facility boundary. This provision applies to the sorting, shredding, grinding, crushing, baling, and storage of these wastes prior to transfer to a recycling facility or approved beneficial reuse site. This provision does not apply to scrap tire or electronic waste management facilities.

Facilities storing construction/demolition waste for transfer to a recycling facility: Facilities occupying no more than 10 acres and used only for the transfer, treatment, and storage of less than 500 tons received per day of construction/demolition waste authorized by the administrator, for the primary purposes of transfer to a recycling facility or beneficial reuse in a manner approved by the administrator. Unless all waste management occurs indoors, the facility shall maintain a twenty foot buffer zone/fire lane separating waste from a fenced facility boundary. This provision applies to the sorting, shredding, grinding, crushing, baling, and storage of these wastes prior to transfer to a recycling facility or approved beneficial reuse site. This provision applies only if all waste management activities occur either indoors or outdoors in containers. This provision does not apply to scrap tire or electronic waste management facilities.

Facilities not considered low hazard and low volume: Transfer, treatment, storage, and processing facilities managing wastes or materials having or exhibiting one or more of the following criteria or characteristics are not low hazard and low volume waste management facilities. Exceptions may be granted by the administrator based on consideration of concentration and volumes of wastes to be managed:

Toxicity,  
Carcinogenicity,  
Ignitability,  
Flammability,  
Explosivity,  
Instability,  
Corrosivity,  
Incompatibility,

Special wastes as defined in this subsection,

Medical/infectious wastes,

PCB-containing wastes,

Excluded hazardous wastes as defined at 40 CFR part 261, or Chapter 2 of the Department's Hazardous Waste rules and regulations,

Wastes that have the potential to create odor, vector, dust, or other nuisances, or

Wastes that in the evaluation of the administrator have a significant potential to impact public health and/or the environment, unless the operator of a proposed facility can demonstrate by submittal of a waste analysis and/or characterization plan that the waste treatment, processing, storage, or transfer activity can be considered a low hazard and low volume waste management activity consistent with the act.

"Major Change" means a change to any solid waste management facility location, design or construction, or to any operating, monitoring, closure or post-closure activities, involving one or more of the following items:

The total permitted volumetric capacity of the facility is to be increased by more than five percent (5%);

The facility classification will change;

The facility service area or source of waste will change and cause the original daily tonnage of waste received to increase by more than five percent (5%);

The facility may begin to accept for treatment, storage, or disposal one or more of the special wastes regulated under Chapter 8 of these rules and regulations;

The effectiveness of any liner, leachate collection or detection system, gas detection or migration system, or pollution control or treatment system may be changed; or

The facility modification will, in the judgement of the administrator, be likely to alter the fundamental nature of the facility's activities or cause noncompliance with any applicable facility standard.

"Mixed household and industrial refuse" means any mixture of municipal solid wastes, industrial solid wastes, or sludge.

"Mixed solid waste" means municipal solid waste and industrial solid waste.

"Mobile transfer, treatment and storage facility" means a facility which is mobilized to conduct transfer, treatment or storage of a solid waste at or near the point of generation.

"Monitoring" means all procedures and techniques used to systematically collect, analyze and inspect data on operational parameters of the facility or on the quality of the air, groundwater, surface water and soil.

"Municipal solid waste" means solid waste resulting from or incidental to residential, community, trade or business activities, including garbage, rubbish, ashes, street sweepings, dead animals, tires, abandoned automobiles and all other solid waste other than industrial or hazardous waste.

"Municipal solid waste landfill" (MSWLF) means a solid waste management facility for the land burial of municipal solid waste that utilizes an engineered method of controls to avoid creating a hazard to the public health, the environment, plants, or animals.

"Municipal solid waste landfill unit" means a discrete area of land or an excavation that receives municipal solid waste and that is not a land application unit, surface impoundment, injection well, or waste pile.

A MSWLF unit may also receive other types of Resource Conservation and Recovery Act (RCRA) Subtitle D waste such as commercial solid waste, nonhazardous sludge, small quantity generator waste, and industrial solid waste. Such a landfill unit may be publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit, or a lateral expansion of an existing MSWLF unit. A construction and demolition landfill that receives residential lead-based paint waste and does not receive any other household waste is not a MSWLF unit.

"Municipality" means a city, town, county, district, association, or other public body.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"New facility" means:

Any facility that did not receive solid waste on or before September 13, 1989; or

Any modification or lateral expansion of an original permit boundary for the purpose of increasing capacity and/or site life by more than five percent (5%). An incidental facility boundary enlargement for the development of, but not limited to fire lanes, buffer zones, surface water diversion systems, and monitoring systems which are not in conflict with local zoning, land use, and/or land ownership is not considered to be a new facility.

"New municipal solid waste landfill unit" means any municipal solid waste landfill unit that did not receive waste prior to October 9, 1993.

"Occupied dwelling house" means a permanent building or fixed mobile home that is currently being used on a permanent or temporary basis for human habitation.

"100-year floodplain" means a flood that has a 1-percent (1%) or greater chance of recurring in any given year or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period.

"On-site decommissioning" means decommissioning performed within a facility's property boundary on petroleum storage tank(s) which are being proposed to be removed from the ground or abandoned in-place within the facility's property boundary.

"Open burning" means uncontrolled burning of solid waste in the open.

"Open dump" means an uncontrolled solid waste management facility at which solid wastes are placed on the land in such a manner that they present a real or potential hazard to public health and the environment. Open dump includes any solid waste management facility subject to the permitting requirements of these rules and regulations which does not have a current, valid permit.

"Operator" means the applicant who has been granted a permit, who may manage and operate the solid waste management facility or who may hire another person, who shall be known as the solid waste manager, for these responsibilities.

"Parent corporation" means a United States corporation which owns or controls the applicant.

"Person" means an individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, municipality or any other political subdivision of the state, or any interstate body or any other legal entity.

"Petroleum-contaminated soils" means solid waste consisting of any natural or manmade soil or rock material into which petroleum product has been added, excluding hardened asphalt rubble.

"Petroleum product" means any crude oil or any liquid petroleum fraction including but not limited to gasoline, diesel fuels, and used and unused motor oils.

"Pile" means any noncontainerized accumulation of solid, nonflowing waste that is used for

treatment or storage.

"Plans" means maps, specifications, drawings and narrative description, prepared to describe the solid waste management facility and its operation.

"Post-closure period" means the period of time during which a closed facility is maintained and monitored. The post-closure period begins when the administrator approves certification from a registered professional engineer confirming that the provisions of the closure plan have been carried out and that the facility has been closed in compliance with the closure standards specified in these rules and regulations. The post-closure period ends when the administrator determines, upon petition by the operator, that the facility has been adequately stabilized and that the environmental monitoring or control systems have demonstrated that the facility closure is protective of public health and the environment consistent with the purposes of the act.

"Principal officer" means an officer described in the bylaws of a corporation or appointed by the board of directors in accordance with the bylaws who serves at least at the level of vice president.

"Private industrial solid waste disposal facility" means any industrial solid waste disposal facility used solely for the disposal of solid waste generated by the owner of the facility; wastes are not transported over public roadways for delivery to the facility; and access by persons other than employees of the facility owner is restricted.

"Processing plant" means a solid waste management facility used or designed to transfer, shred, grind, bale, compost, salvage, separate, reclaim or provide other treatment of solid wastes.

"Release" includes, but is not limited to, any spilling, leaking, pumping, pouring, emptying, emitting, discharging, dumping, addition, escaping, leaching, or unauthorized disposal of any oil or hazardous substance which enters, or threatens to enter, waters of

the state.

"Routine cover" means cover material that is applied to the top and side slopes of compacted solid wastes at the end of each operating day.

"Salvaging" means the controlled removal by the operator or his or her agent of solid waste from a solid waste management facility for the purpose of reuse.

"Sanitary landfill" means a municipal solid waste landfill.

"Scavenging" means the removal by persons other than the operator or his agent of solid wastes from any solid waste management facility.

"Scrap tire" means a tire that is no longer used for its original purpose.

"Seismic impact zone" means an area with a 10 percent (10%) or greater probability that the maximum horizontal acceleration in hard rock, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10g in 250 years.

"Self bond" means an indemnity agreement in a sum certain executed by the permittee and/or the parent company or federal agency guarantor and made payable to the state, with or without separate surety.

"Silviculture waste" means any wood wastes generated during the management and development of forests. This includes but is not limited to all wood wastes that are generated during the operation of a sawmill.

"Sludge" means the accumulated semisolid mixture of solid wastes and water, oils, or other liquids.

"Solid waste" means garbage, and other discarded solid materials, materials, including solid waste materials resulting from industrial, commercial, and agricultural operations, and from community activities, but, unless disposed of at a solid waste management facility, does not include:

Solids or dissolved material in domestic sewerage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste water effluents, dissolved materials in irrigation return flows or other common water pollutants;

Liquids, solids, sludges or dissolved constituents which are collected or separated in process units for recycling, recovery or reuse including the recovery of energy, within a continuous or batch manufacturing or refining process; or

Agricultural materials which are recycled in the production of agricultural commodities.

"Solid waste manager" means any person designated by the applicant who has primary responsibility for the daily management and operation of the solid waste management facility.

"Solid waste management facility" means any facility for the transfer, treatment, processing, storage or disposal of solid waste, but does not include:

Lands or facilities subject to the permitting requirements of Article 3 of the act;

Facilities which would have been subject to the permitting requirements of Article 3 of the act if constructed after July 1, 1973;

Any facility described under W.S. 30-5-104(d) (vi) (A) or (B);

Lands and facilities subject to the permitting requirements of Articles 2, 3 or 4 of the act used solely for the management of wastes generated within the boundary of the permitted facility or mine operation by the facility or mine owner or operator or from a mine mouth electric power plant or coal drier;

Lands and facilities owned by a person engaged in farming or ranching and used to dispose of solid waste generated incidental to his or her farming and

ranching operations; or

Transport vehicles, storage containers and treatment of the waste containers.

"Solid waste management unit" means a contiguous area of land on or in which solid waste is placed, or the largest area in which there is significant likelihood of mixing solid waste constituents in the same area of a solid waste management facility. Examples of solid waste management units include a surface impoundment at a solid waste management facility, a waste pile, a land treatment area, a municipal, construction/demolition, or industrial landfill unit, an incinerator, a tank and its associated piping and underlying containment systems at a solid waste management facility and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

"Solid waste petroleum storage tank" means any underground or aboveground storage tank that has been taken out of service and which contained any substance regulated under Subtitle I of the Resource Conservation and Recovery Act, as amended as of September 23, 1988, including but not limited to storage tanks that have held gasoline, diesel fuels, and used and unused motor oils.

"Special wastes" are those wastes which require special handling as described in Chapter 8 of these rules and regulations.

"State or federal highway" shall mean any road or primary highway designated as a "state highway" by the Wyoming State Highway Commission in accordance with W.S. 24-2-109(a).

"Storage" means the holding of solid waste for a temporary period, at the end of which time the solid waste is treated, disposed of, or stored elsewhere.

"Storage facility" means any facility that stores solid waste for a temporary period, at the end of which time the solid waste is treated, disposed, or stored elsewhere.

"Surface impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments include, but are not limited to holding, storage, settling, and aeration pits, ponds and lagoons.

"Tangible net worth" means net worth minus intangibles such as goodwill, patents or royalties.

"Tank" means a stationary device designed to contain an accumulation of waste that is constructed primarily of nonearthen materials (e.g., wood, concrete, steel, plastic) that provide structural support and integrity.

"Topsoil" means all surface soil usually including the organic layer in which plants have most of their roots, or in the case where no topsoil is present, the top six (6) inches of in-place native material.

"Transfer" means the temporary holding of solid waste pending transportation of the solid waste for treatment, storage, and/or disposal.

"Transfer facility" means any solid waste transportation related facility including loading docks, parking areas, storage areas and ancillary features.

"Treatment" means any method, technique, or process designed to change the physical, chemical, or biological character or composition of any solid waste so as to recover energy or material resources from the waste or so as to render it safer to transport, store, or dispose of, or to make it amenable for recovery, use, or storage, or for reduction in volume. Treatment includes but is not limited to baling, chipping, composting, distilling, incinerating, processing, reconditioning, recovering, recycling, rerefining, reclaiming, and shredding.

"Treatment facility" means any facility that treats solid waste. Types of treatment facilities include but are not limited to solid waste incinerators, tire shredding/chipping facilities, tire pyrolysis plants, solid waste shredding or baling facilities, drum and barrel reconditioning/recycling facilities, composting facilities, and facilities used to distill, rerefine, recover, recycle, or incinerate used antifreeze, oils or solvents.

"Type I landfill" means a municipal solid waste landfill which is not a Type II landfill.

"Type II landfill" means a municipal solid waste landfill which:

Accepts for disposal less than twenty (20) tons of municipal solid wastes daily, and has no evidence of existing groundwater contamination from the landfill, and

Serves a community that has no practicable waste management alternatives and the landfill is located in an area that receives less than or equal to twenty-five (25) inches of precipitation annually, and

For the purposes of determining whether a landfill is a Type I or a Type II landfill, operators shall assume that each person served by the solid waste disposal facility generates an average of six and three tenths (6.3) pounds of solid waste per person per calendar day. If local data are available and the administrator approves, the applicant may use an alternate waste generation rate to calculate annual average daily tonnage of municipal solid waste which is received.

"Unprocessed household refuse" means municipal solid wastes which have not been treated, processed, or recycled at a facility subject to the requirements of these rules and regulations.

"Unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the

landfill structural components responsible for preventing releases from a landfill. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and karst terranes.

"Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically connected with this aquifer within the facility's property boundary.

"Used antifreeze" means any antifreeze that has been used and as a result of such use is contaminated by physical or chemical impurities. Used antifreeze also includes new antifreeze which has not been used for its intended purpose but is being discarded.

"Used oil" means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities. Used oil also includes new oil which has not been used for its intended purpose but is being discarded.

"Vadose zone" means the unsaturated zone between the land surface and the water table.

"Vector" means a carrier capable of transmitting a pathogen from one organism to another, including flies, mosquitoes, skunks, or rodents.

"Waste management unit boundary" For the purpose of establishing a relevant point of compliance for municipal solid waste landfills, "waste management unit boundary" means a vertical surface located at the hydraulically downgradient limit of the municipal solid waste landfill unit. This vertical surface extends down to the uppermost aquifer.

"Waste pile" means any noncontainerized accumulation of solid waste used for treatment or storage of solid waste.

"Water table" means the seasonally high surface of groundwater which is subject to atmospheric

pressure in an unconfined aquifer. Water table does not mean the piezometric surface of a confined aquifer.

"Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs and similar areas.

"Working face" means that portion of the land disposal site where solid wastes are being deposited and are being spread and compacted prior to the placement of cover materials.

(ii) The singular includes the plural, the plural the singular, and the masculine the feminine or neuter, when consistent with the intent of the act and necessary to effect its purpose.

(f) Permit required for new and existing facilities:

(i) A permit or a one-time or emergency disposal authorization is required for the location, construction, operation or closure of any new or existing solid waste management facility as specified by Chapter 1, Section 5, or by the applicable chapter(s) of these rules and regulations. All facilities shall be located, designed, constructed, operated and closed in accordance with the permit or disposal authorization issued by the director or administrator.

(ii) A permit or disposal authorization may not be required for the facilities or activities specified in subsection (1) of this section.

(iii) Any facility that is regulated under more than one of the permitting chapters of these rules and regulations can apply for and receive a single solid waste management permit demonstrating compliance with each of the applicable chapters of these rules and regulations.

(g) Recordkeeping, monitoring and reporting requirements:

(i) Operators of any solid waste management facility, including those operators of open dumps, will be required to establish and maintain monitoring equipment or methods, sample effluent discharges or emissions, or provide such other information as may be reasonably required and specified by the administrator.

(ii) All records required by these rules and regulations shall be maintained by the operator of the facility for a minimum of three (3) years from the date of recording, except for those records required to be kept through the life and post-closure period of the facility as specified in Chapter 2 of these rules and regulations. All records shall be available for inspection and copying by department personnel during reasonable business hours. Copies of these records shall be submitted to the administrator when requested.

(h) Prohibited acts: The following acts are prohibited:

(i) Open dumping;

(ii) Scavenging and animal feeding at active solid waste management facilities;

(iii) Dumping bulk liquid wastes at solid waste management facilities unless specifically authorized by the administrator;

(iv) Dumping hazardous wastes (other than hazardous wastes generated by residential households) in any facility other than a facility authorized as a hazardous waste disposal facility by these rules and regulations unless specifically authorized by the administrator;

(v) Open burning of any wastes not exempted in Chapter 1, Section 1(1); and

(vi) No solid wastes shall be speculatively accumulated at a facility intended for use as a solid waste management facility without a permit.

(i) Inspections:

(i) Inspections will be made to insure compliance with the standards included in each of the chapters of these rules and regulations. These inspections will consist of:

(A) Preapplication inspections, to evaluate suitability of locations for development of solid waste management facilities;

(B) Preconstruction inspections, to allow the administrator to evaluate planned construction designs for solid waste management facilities;

(C) Construction inspections, to determine if construction of a solid waste management facility is in accordance with plans and specifications for the facility which are contained in the permit application;

(D) Closure, post-closure, and annual operational compliance inspections to evaluate compliance with applicable standards contained in these rules and regulations; and

(E) More frequent routine or complaint-related inspections, at the administrator's discretion.

(ii) Neither advance notice nor a waiver of liability shall be required to be provided by department personnel as a condition of entry to any facility for the purpose of conducting any solid waste management facility compliance inspection under subsection (i)(i) of this section. The operator shall allow department personnel entry to the disposal facility for the purpose of inspection. Department personnel shall be required to obey all safety and other operation requirements as may be required of it's (the waste facility's) own employees.

(iii) The administrator shall provide copies of all inspection reports to the operator following completion of the inspection.

(iv) The inspection requirements for municipal solid waste landfills with lifetime permits are in Chapter

2, Section 5 (bb) (iii).

(j) Deficiencies:

(i) Following any inspection by department personnel, the operator will be notified in writing of any deficiencies within thirty (30) days from the date of the inspection.

(ii) The administrator will use conference and conciliation procedures cited in W.S. 35-11-701(c) to establish a plan and schedule to correct the deficiencies. Failure of the operator to implement the plan shall be cause for the director to begin enforcement proceedings under Article 7 (Complaint) or Article 9 (Penalties) of the act.

(iii) Denial of permit renewal and/or revocation of the facility permit may result from failure to implement corrective actions.

(k) Noncompliance: In the event of noncompliance with the rules and regulations contained herein, the director may seek remedies as prescribed under Article 7 (Complaints) and Article 9 (Penalties) of the Environmental Quality Act.

(l) Exemptions: The administrator may exempt the following from a permit or any requirement to obtain a waste management authorization under these regulations, provided that persons engaged in activities which are otherwise exempted may be required to supply information to the administrator which demonstrates that the act, practice, or facility is exempt, and shall allow entry of department inspectors for purposes of verification of such information:

(i) Auto salvage yards and scrap metal dealers: Baling of used motor vehicles or scrap metals, and operation of metal smelters regulated by the Air Quality Division and storage for sale or reuse of used motor vehicles, motor vehicle parts, or scrap metals at auto salvage yards or scrap metal dealers as authorized under W.S. 31-13-112(a), provided that for used oil, used antifreeze, tires, and lead acid batteries the following

storage accumulation limits are not exceeded:

(A) 1,000 scrap tires, excluding any scrap tires remaining on wheels attached to vehicles;

(B) 1,000 gallons of used motor oil, if the oil is being stored to be recycled, or to be burned in a device authorized by the Air Quality Division or in an oil-fired space heater, provided that tanks are properly labeled and the heater is designed to have a maximum capacity of not more than 0.5 million btu per hour, combustion gases are vented to the outside air, and the heater burns only used oil that the owner or operator generates or receives from do-it-yourself oil changers;

(C) 1,200 used lead acid batteries, excluding any used lead acid batteries remaining in vehicles, if the batteries are being stored in an upright position and are not leaking, for the purpose of being transferred to a recycling facility;

(D) 500 gallons of used antifreeze, if the antifreeze is being stored to be recycled, and the owner or operator only stores used antifreeze they generate or receive from do-it-yourself antifreeze changers or other similar sources.

(ii) Single family units or households: The collection, storage and disposal of household wastes generated by a single family unit or household on their own property in such a manner that does not create a health hazard, public or private nuisance, or detriment to the environment.

(iii) Clean fill: The disposal of clean fill consisting solely of uncontaminated natural soil and rock, hardened asphalt rubble, bricks, and concrete rubble in such a manner that does not create a health hazard, public or private nuisance or detriment to the environment.

(iv) Clean wood waste storage facilities: Facilities storing clean wood waste in storage piles with a base surface area no larger than 10,000 square feet containing no greater than 100,000 cubic feet of clean wood waste. Clean wood waste at such facilities shall be

stored no less than 100 feet from off-site structures, storm water shall be properly managed, and the pile shall not create a public or private nuisance.

(v) De minimis waste management activities: The management of solid wastes, which in the judgement of the administrator, constitute de minimis quantities which are managed in a manner that does not create a health hazard, public or private nuisance, or detriment to the environment.

(vi) Retail business facilities: Retail business facilities which have fewer than 1,000 scrap tires on the premises at any one time.

(vii) Facilities that store lead acid batteries: A retail business facility or a solid waste storage or transfer facility used only for the storage or transfer of no more than 1,200 used lead acid batteries for the purpose of transfer to a recycling facility, if the batteries are stored in an upright position and are not leaking.

(viii) Commercially operated used oil management facilities: Used oil collection centers, aggregation points, transfer facilities, processors, re-refiners, burners, and used oil fuel marketers that store no more than 10,000 gallons of used oil to be recycled or burned for energy recovery, provided the storage tanks are properly labeled, and subject to the used oil management requirements contained in Chapter 12 of the Wyoming Hazardous Waste Rules and Regulations.

(ix) Used oil generators: Used oil generators are subject to the used oil management requirements contained in Chapter 12 of the Wyoming Hazardous Waste Rules and Regulations. Used oil generators that store their own used oil, or used oil received from do-it-yourself used oil generators, for transfer to a used oil recycling facility or burning in an on-site used oil-fired space heater, provided that the tanks are properly labeled and that:

(A) The heater burns only used oil that the owner or operator generates, or used oil received from

household do-it-yourself used oil generators; and

(B) The heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour; and

(C) The combustion gases from the heater are vented to the ambient air.

(x) Facilities storing waste , other than construction/demolition waste, for transfer to a recycling facility: A solid waste storage, treatment, or transfer facility occupying no more than one (1) acre and used only for the storage, treatment, or transfer of paper, cardboard, plastic, aluminum cans, glass, metal, clean wood, construction/demolition waste, and other nonputrescible municipal solid wastes which may be specifically authorized by the administrator, for the primary purposes of transfer to a recycling facility or beneficial reuse in a manner approved by the administrator. Unless all waste management occurs indoors, the facility shall maintain a twenty foot buffer zone/fire lane separating waste from a fenced facility boundary. This exemption applies to the sorting, shredding, grinding, crushing, baling and storage of these wastes prior to transfer to a recycling facility or approved beneficial reuse site. This exemption does not apply to drum and barrel reconditioning or recycling facilities, scrap tire management facilities, electronic waste management facilities, or to underground storage tank storage or decommissioning facilities.

(xi) Facilities storing construction/demolition waste for transfer to a recycling facility: A solid waste storage, treatment, or transfer facility occupying no more than one (1) acre and used only for the storage, treatment, or transfer of construction/demolition waste as authorized by the administrator for the primary purposes of transfer to a recycling facility or beneficial reuse in a manner approved by the administrator. Unless all waste management occurs indoors, the facility shall maintain a twenty foot buffer zone/fire lane separating waste from a fenced facility boundary. This exemption applies to the sorting, shredding, grinding, crushing, baling, and storage of these wastes prior to transfer to a recycling

facility or approved beneficial reuse site. This exemption does not apply to drum and barrel reconditioning or recycling facilities, scrap tire management facilities, electronic waste management facilities, or to underground storage tank decommissioning or storage facilities.

(xii) Solid waste transfer, treatment, storage, and processing facilities: Solid waste transfer, treatment, storage, and processing facilities receiving 20 cubic yards or less of solid waste per day and occupying no more than three (3) acres, including a twenty foot buffer zone within a fenced facility boundary, which individually or in combination manage no more than the following specified quantities of wastes. This exemption does not apply to facilities whose owner or operator simultaneously owns or operates more than one transfer facility within one (1) mile of each other;

50 cubic yards of mixed solid wastes stored in containers; and

50 cubic yards of construction and demolition waste stored in containers; and

Green waste and clean wood waste storage and/or compost piles; and

Compost piles for green waste and manure operated in a manner that does not create odors, constitute a nuisance, or attract vectors; and

500 scrap tires stored in a manner that prevents fires and vector habitat; and

20 cubic yards of electronic waste stored in containers for shipment to a recycling facility; and

1,000 gallons of on-specification used oil or used oil generated by do-it-yourself used oil generators, if the used oil is stored to be recycled, reclaimed, or reused; and

1,000 gallons of used antifreeze, if the used antifreeze is stored to be recycled, reclaimed,

or reused; and

250 used lead acid batteries, if the batteries are stored in an upright position and are not leaking, for the purpose of transfer to a recycling facility; and

150 cubic yards of paper, cardboard, plastic, aluminum cans, glass, and metal, or other nonputrescible municipal solid wastes which may be specifically authorized by the administrator, for the primary purposes of transfer to a recycling facility or beneficial reuse in a manner approved by the administrator. This provision applies to the sorting, shredding, grinding, crushing, baling, and storage of these wastes prior to transfer to a recycling facility or approved beneficial reuse site; and

Household hazardous waste (HHW) collected no more frequently than semiannual collection days, provided that the HHW collected is removed from the site and transported to a permitted facility within thirty (30) days.

(xiii) Vehicle service and maintenance facilities: In addition to used oil stored pursuant to this subsection, used antifreeze storage tanks located at vehicle service facilities, provided the storage tanks are properly labeled, have a used antifreeze storage capacity of no more than 500 gallons, and are used only to contain used antifreeze that the owner or operator generates or receives from do-it-yourself antifreeze changes;

(xiv) Medical waste management facilities: Medical waste storage units, incinerators, autoclaves, or other treatment devices, used to store or treat only medical wastes which are generated by the owner or operator of the medical facility or by doctor's offices, medical clinics, dental offices and other medical waste generators within the county or local area where the medical waste storage units, incinerators, autoclaves, or other treatment devices are located.

(xxv) Beneficial use: The reuse of wastes in a manner which is both beneficial and protective of human

health and the environment, as approved by the administrator.

(xvi) An exemption or solid waste management permit are not required for facilities which are not solid waste facilities as defined by W.S. 35-11-103(d) (ii):

(A) Facilities regulated by the Wyoming Oil and Gas Commission under W.S. 30-5-104(d) (vi) (A) or (B);

(B) The disposal of waste soil and rock directly connected with mining, subject to the Land Quality Division rules and regulations, and including overburden, reject mineral and mill tailings;

(C) The disposal of sewage waste, municipal wastewater treatment sludges, wastewaters, or bulk liquid waste at facilities, other than solid waste landfills, which are permitted in accord with the Water Quality Division rules and regulations;

(D) Open burning of wood, brush, weeds and tree trimmings conducted in compliance with the Air Quality Division rules and regulations;

(E) Facilities which would have been subject to the permitting requirements of Article 3 (Water Quality) of the act if constructed after July 1, 1973;

(F) Lands and facilities subject to the permitting requirements of Articles 2 (Air Quality), 3 (Water Quality), or 4 (Land Quality) of the act used solely for the management of wastes generated within the boundary of the permitted facility or mine operation by the facility or mine owner or operator or from a mine mouth electric power plant or coal drier;

(G) Lands and facilities owned by a person engaged in farming or ranching and used to dispose of solid waste generated incidental to his or her farming and ranching operation;

(H) Transport vehicles, storage containers and treatment of waste in containers.

(m) Time:

(i) When time is prescribed by these rules and regulations in "days", the time period shall be counted as calendar days.

(ii) When time prescribed by these rules and regulations for performing any act expires on a Saturday or legal holiday, such time shall extend to and include the next succeeding business day.

## Section 2. General Permit Application Procedure.

(a) General application requirements: Each application for a solid waste management facility permit described in this section shall contain information adequate to demonstrate compliance with the minimum standards for location, design and construction, operating, monitoring, closure and post-closure as specified in the applicable chapter of these rules and regulations. Permit application procedures are set out in W.S. 35-11-502.

(b) Public notice and comment: Prior to the issuance of a permit by the director, each application for a new, renewal, or closure permit shall be submitted for public notice and comment as follows:

(i) Upon receipt of notification that the application has been determined to be complete, the applicant shall comply with the following requirements:

(A) Within fifteen (15) days of being notified that the application is complete:

(I) Provide written notice to landowners with property located within a half mile of the site, using certified, return receipt requested mail for disposal facilities and first class mail for other solid waste management facilities;

(II) Provide written notice to each member of the interested parties mailing list maintained by the administrator, the mayor of each city or town

within fifty miles of the proposed facility and to the county commission and any solid waste district for the county in which the potential facility is located, using first class mail;

(III) Cause a written notice to be published once a week for two (2) consecutive weeks in a newspaper of general circulation within the county where the applicant plans to locate the facility;

(IV) Specific text for the written notice shall be provided to the applicant by the administrator. The notice shall contain information about the permit application including the identity of the applicant, the proposed facility location and size, the wastes types intended for management, the method of waste management, and the operating life. The notice shall identify the last date for filing comments on the application;

(B) Provide the administrator with documentation that the notice requirements of subsection (b) (i) (A) of this section have been followed. Documentation shall consist of copies of return receipt cards, publisher's affidavits and other documentation, as appropriate; and

(C) The public comment period shall begin on the first date of publication of the notice required in subsection (b) (i) (A) (III) of this section, and shall end at 5:00 pm on the thirtieth (30th) day following the last date of publication of the notice.

(D) The administrator may, at his or her discretion, conduct a public hearing on the application submission.

(ii) For each new, renewal, or closure permit application or any application for a major change, the administrator shall issue a proposed permit following completion of the administrator's permit analysis, unless the permit is denied pursuant to Section 4 of this chapter. Upon receipt of a proposed permit, the applicant shall comply with the following requirements:

(A) Within fifteen (15) days of receiving a proposed permit:

(I) Provide written notice to landowners with property located within a half mile of the site, the mayor of each city or town within fifty (50) miles of the proposed facility, the local county commission and any solid waste district for the county in which the potential facility is located, using certified, return receipt requested mail for disposal facilities and first class mail for other solid waste management facilities;

(II) Provide written notice to each member of the interested parties mailing list maintained by the administrator using first class mail;

(III) Cause a written notice to be published once a week for two (2) consecutive weeks in a newspaper of general circulation within the county where the applicant plans to locate the facility;

(IV) Specific text for the written notice shall be provided to the applicant by the administrator. The notice shall contain information about the permit application including the identity of the applicant, the proposed facility location and size, the wastes types intended for management, the method of waste management, the operating life, and the administrator's findings. The notice shall identify the period for filing objections to the application;

(V) Deliver, in person or via certified, return receipt requested mail, a copy of the permit application, the administrator's review and the administrator's proposed permit to a local public library and the county clerk of the county of the proposed facility. The permit application and proposed permit shall be maintained for public viewing at a local public library and at the county clerk's office for the duration of the public comment period specified in Section 2(b)(ii)(C) of this chapter; and

(B) Provide the administrator with documentation that the notice and filing requirements of

subsection (b) (ii) (A) of this section have been followed. Documentation shall consist of copies of return receipt cards, and publisher's affidavits or affidavits of personal delivery as appropriate.

(C) The public comment period shall begin on the first date of publication of the notice required in subsection (b) (ii) (A) (III) of this section, and shall end at 5:00 pm on the thirtieth (30th) day following the last date of publication of the notice.

(D) If substantial written objections are received by the director by 5:00 pm on the last day of the public comment period, a public hearing will be held within twenty (20) days after the last day of the public comment period, unless a different schedule is deemed necessary by the council. The council or director shall publish notice of the time, date and location of the hearing in a newspaper of general circulation in the county where the applicant plans to locate the facility, once a week for two (2) consecutive weeks immediately prior to the hearing. The hearing shall be conducted as a contested case in accordance with the Wyoming Administrative Procedures Act, and right of judicial review shall be afforded as provided in that Act.

(c) Permit application procedure:

(i) The applicant shall provide the administrator with three (3) complete copies of the permit application. The application shall be organized in three-ring binders, and the information presented in an order that conforms to the order set forth in the applicable sections of these rules and regulations, unless the administrator approves an alternate format for the organization of the application.

(ii) The administrator shall conduct a completeness review of each application and notify the applicant of the results within sixty (60) days of receipt of the application. If the administrator deems the application incomplete, he or she shall so advise and state in writing to the applicant the information required. All items not specified as incomplete at the end of the first sixty (60) day period shall be deemed

complete for the purposes of this subsection.

(iii) If the applicant resubmits an application or further information, the administrator shall review the application or additional information within sixty (60) days of each submission and advise the applicant in writing if the application or additional information is complete.

(iv) After the application is determined complete, the applicant shall give written notice of the application as required in Section 2(b)(i) of this chapter. A preconstruction inspection will be conducted within sixty (60) days of a determination that the application is complete.

(v) The administrator shall review the application and unless the applicant requests a delay, advise the applicant in writing within ninety (90) days from the date of determining that the application is complete, that a proposed permit is suitable for publication under Chapter 1, Section 2(b)(ii), or that the application is deficient, or that the application is denied. All reasons for deficiency or denial shall be stated in writing to the applicant. All items not specified as being deficient at the end of the first ninety (90) day period shall be deemed sufficient for the purposes of this subsection.

(vi) If the applicant submits additional information in response to any deficiency notice, the administrator shall review such additional information within thirty (30) days of submission and advise the applicant in writing if a proposed permit is suitable for publication under Chapter 1, Section 2(b)(ii), or that the application is still deficient, or that the application is denied.

(d) Permit issuance:

(i) If the application is determined to be complete and demonstrates compliance with the applicable standards, the administrator shall prepare a proposed permit. Public notice as specified in Chapter 1, Section 2(b)(i) and 2(b)(ii), will occur.

(ii) The director shall render a decision on the proposed permit within thirty (30) days after completion of the notice period if no hearing is requested. If a hearing is held, the council shall issue findings of fact and a decision on the proposed permit within thirty (30) days after the final hearing. The director shall issue or deny the permit no later than fifteen (15) days from receipt of any findings of fact and decision of the Environmental Quality Council. In granting permits, the director may impose such conditions as may be necessary to accomplish the purpose of the act and which are not inconsistent with the existing rules, regulations, and standards.

(iii) The operator shall notify the administrator as soon as construction has been completed. A construction inspection shall be conducted within ninety (90) days of the notification.

(e) Permit renewal applications:

(i) In addition to the following requirements, permit renewal applications are subject to the application procedures set forth in subsection (b), (c), and (d) of this section.

(ii) The operator subject to solid waste management facility permit requirements shall provide the administrator with a renewal application. The renewal permit application shall contain the information specified in the relevant chapter(s) of these rules and regulations and be submitted in accordance with the time frames specified.

(iii) Except for municipal solid waste landfills with lifetime permits, the operator of a facility with a valid permit issued under Section 2(d) of this chapter or a valid renewal permit issued under Section 2(f) of this chapter, shall submit a permit renewal application no less than 12 months prior to the expiration of said permit unless a closure permit application has been submitted. Municipal solid waste landfills with lifetime permits shall submit a renewal application no later than three (3) years prior to the

expiration of the lifetime municipal solid waste landfill permit. The renewal application shall contain the information specified in the applicable chapter of these rules and regulations.

(iv) Three (3) copies of the permit renewal application shall be submitted to the administrator. The application shall be organized in three ring binders, and the information presented in an order that conforms to the order set forth in the applicable application requirements sections of these rules and regulations, unless the administrator approves an alternate format for the organization of the application. The applicant shall have the option to submit copies of only the updated and revised portion of the previous application, if the revised and updated pages and drawings are appropriately numbered and dated to facilitate incorporation into the previous permit document and the revisions are clearly identified.

(v) A renewal inspection shall be conducted within sixty (60) days after the application is determined complete and technically adequate.

(f) Renewal permit issuance:

(i) Renewal permits are issued pursuant to subsection (d) of this section.

(ii) The term of the renewal permit shall be as specified in the applicable chapter of these rules and regulations.

(g) Closure permit applications:

(i) In addition to the following requirements, closure permit applications are subject to the application procedures set forth in subsection (b), (c), and (d) of this section.

(ii) The operator shall provide the administrator with a closure permit application if required by the applicable chapter of these rules and regulations in accordance with the time frames specified therein.

(iii) Anticipated closure: The operator of a facility with a valid permit on the effective date of these regulations, or a valid permit or renewal permit issued under Section 2(d) or Section 2(f) of this chapter, shall submit a closure permit application to the administrator no less than twelve (12) months prior to the anticipated facility closure.

(iv) Unanticipated closure: In the event any solid waste management facility ceases operation, as determined by nonreceipt of solid wastes for any continuous nine (9) month period or any continuous one (1) year period for landfarm facilities or petroleum-contaminated soils land treatment facilities, the facility operator shall provide written notification to the administrator no later than thirty (30) days after the end of such nine (9) month (or one (1) year) period. This notification shall be accompanied by a closure permit application unless the administrator approves interim measures with delayed final closure for good cause upon application by the operator.

(v) Three (3) copies of the closure permit application shall be submitted to the administrator. The application shall be organized in three ring binders, and the information presented in an order that conforms to the order set forth in the applicable application requirements sections of these rules and regulations, unless the administrator approves an alternate format for the organization of the application.

(h) Closure permit issuance:

(i) Closure permit issuance: Closure permits are issued pursuant to subsection (d) of this section.

(ii) Upon completion of closure activities, the operator shall provide a certification from a registered professional engineer confirming that the provisions of the closure plan have been carried out and that the facility has been closed in compliance with the closure standards specified in these rules and regulations.

(iii) The term of any closure permit shall be

set to coincide with the duration of any closure/post-closure maintenance and monitoring period specified in the applicable chapter of these rules and regulations. No renewals of closure permits shall be required.

(i) Variance application procedure for location standards specified in W.S. 35-11-502(c):

(i) For solid waste disposal facilities which do not meet the location standards specified in paragraphs (i) through (iv) of W.S. 35-11-502(c), the applicant may apply to the director for a variance from the standards by submitting a written variance application. The variance application shall contain the following information:

(A) For proposed facilities which do not meet the location standards for proximity to towns, schools or any occupied dwelling house in W.S. 35-11-502(c) (i) or (ii), the applicant shall:

(I) Present an analysis of additional traffic which would result from the proposed facility, and demonstrate that additional traffic caused by operation of a disposal facility will not pose a safety threat to the public;

(II) Demonstrate that the operation of the proposed facility will not present odor, dust, litter, insect, noise, health (human and animal) or aesthetic problems, and will not present a public nuisance by its proximity to the town, schools and/or dwellings. This demonstration may be made through analysis of the facility design and operation practices; and

(III) Provide design features and monitoring specifications used to preclude methane migration from affecting any buildings within one (1) mile of the proposed facility, if the facility is used for the disposal of wastes which may form methane as a decomposition product.

(B) For proposed facilities which do not meet the location standard for proximity to, and visual screening from, state or federal highways in W.S. 35-11-502(c) (iii), the applicant shall provide information

describing how the design and operation of the facility will minimize visual impacts to the highway(s).

(C) For proposed facilities, excluding incinerators, which do not meet the location standard for proximity to water wells in W.S. 35-11-502(c)(iv), the applicant shall provide:

(I) A detailed description of the site's geologic and hydrologic characteristics, supported by data from on-site soil borings and groundwater monitoring wells;

(II) A detailed description of the proposed facility's containment system (cap and liner systems) and surface water diversion structures;

(III) A detailed description of the groundwater monitoring program (including location of wells, sampling frequency and sampling parameters) which would be instituted when the facility begins operations; and

(IV) An analysis of the potential for contaminants which may leak from the disposal facility to adversely affect the nearby water well(s). This analysis may be in the form of contaminant transport modeling results, an evaluation of hydrologic conditions or aquifer properties, or other applicable information.

(D) In addition to the other information requested in this subsection, all variance applications made under this subsection shall be accompanied by the following information:

(I) The proposed size of the facility;

(II) The name, address and telephone number of the applicant;

(III) The legal description of the property;

(IV) A detailed description of the

facility which includes information on the amount, rate (tons per day), type (including chemical analyses if other than household refuse) and source of incoming wastes, a narrative describing the facility operating procedures, and the estimated site capacity and site life;

(V) The names and addresses of the property owners of all lands within one (1) mile of the proposed facility boundary;

(VI) A USGS topographic map (scale of 1:24,000 or 1: 62,500) which shows the boundaries of the proposed landfill site; and

(VII) Information sufficient to evaluate the conditions specified in paragraph (i)(ii) of this section.

(ii) In granting any variance as provided by this paragraph, the director shall issue written findings that the variance will not injure or threaten to injure the public health, safety, or welfare. The director shall only make such a finding if the evidence presented in the application and obtained at a public hearing demonstrates that:

(A) There are no available alternative locations which meet the location standards for a solid waste management disposal facility to meet the disposal needs of the applicant, within a reasonable distance of the boundary of the service area of the facility;

(B) It is not possible for the applicant to use existing, permitted solid waste management disposal facilities owned by another person within a reasonable distance of the boundary of the service area of the facility; and

(C) Special or unique conditions or circumstances apply to the applicant and justify granting the variance.

(iii) In granting any variance as provided by this paragraph, the director shall condition the variance such that it applies only to the facility described in the

application. Changes to the facility size, type or source of waste, rate at which waste is received, or any other aspect of the facility as described in paragraph (i)(i)(D)(IV) of this section shall render the variance invalid.

(iv) The administrator shall review the variance application and provide his or her draft findings and recommendations to the director and the applicant within ninety (90) days of the date when the variance application is received, unless a delay is requested by the applicant.

(v) Upon issuance of the administrator's draft findings and recommendations, the administrator shall schedule and conduct a hearing on the variance in accordance with the procedures specified in W.S. 35-11-601. The director shall make a final decision regarding the variance application within sixty (60) days from the date of the hearing.

(j) Permit application procedures for low hazard and low volume treatment, processing, storage, and transfer facilities:

(i) The applicant shall provide the administrator with three (3) complete copies of the permit application. The application shall be organized in three-ring binders and the information presented in an order that conforms to the order set forth in the applicable sections of these rules and regulations, unless the administrator approves an alternate format for the organization of the application;

(ii) The administrator shall conduct a completeness and technical review of each application submittal within thirty (30) days of receipt of the application. If the administrator deems the application incomplete and/or technically inadequate, the administrator shall so advise and state in writing to the applicant the information required;

(iii) For each new low hazard and low volume treatment, processing, storage, and transfer facility permit application or application for a major amendment to

an existing facility , excluding mobile transfer, treatment or storage facilities, the administrator shall issue a proposed permit following completion of the administrator's permit analysis, unless the permit is denied pursuant to Section 4 of this chapter. Upon receipt of a proposed permit the applicant shall within fifteen (15) days:

(A) Cause a written notice to be published once a week for two (2) consecutive weeks in a newspaper of general circulation within the county where the applicant plans to locate the facility. Specific text of the notice shall be provided to the applicant by the administrator. The notice shall contain information about the permit application including the identity of the applicant, the proposed facility location and size, the waste types intended for management, the method of waste management, the operating life, and the administrator's findings. The notice shall identify the period for filing objections to the application;

(B) Notify adjacent landowners by first class mail;

(C) Provide the administrator with documentation that the notice requirements of paragraphs (iii)(A) and (B) of this subsection have been followed. Documentation shall consist of the publisher's affidavits and sworn statement;

(iv) For each new mobile low hazard and low volume treatment, processing, storage, and transfer facility permit application or application for a major amendment to an existing facility, the administrator shall issue a proposed permit following completion of the administrator's permit analysis, unless the permit is denied pursuant to Section 4 of this chapter. Upon receipt of a proposed permit the applicant shall within fifteen (15) days:

(A) Cause a written notice to be published once a week for two (2) consecutive weeks in a newspaper of general circulation within the state. Specific text of the notice shall be provided to the applicant by the administrator. The notice shall contain information about

the permit application including the identity of the applicant, the proposed facility service area, the waste types intended for management, the method of waste management, the operating life, and the administrator's findings. The notice shall identify the period for filing objections to the application;

(B) Provide the administrator with documentation that the notice requirements of paragraphs (iv)(A) of this subsection have been followed. Documentation shall consist of the publisher's affidavits and sworn statement;

(v) The public comment period shall begin on the first day of publication of the notice required in paragraphs (iii)(A) or (iv)(A) of this section and shall end at 5:00 pm on the thirtieth (30th) day following the last day of publication of the notice;

(vi) If substantial written objections are received by the director by 5:00 pm on the thirtieth (30th) day following the last date of publication of the notice, a public hearing will be held within twenty (20) days after the last day of the public comment period, unless a different schedule is deemed necessary by the council. The council or director shall publish notice of the time, date, and location of the hearing in a newspaper of general circulation in the county where the applicant plans to locate the facility, once a week for two (2) consecutive weeks immediately prior to the hearing. The hearing shall be conducted as a contested case in accordance with the Wyoming Administrative Procedures Act, and right of judicial review shall be afforded as provided in that act.

(vii) The operator of a facility with a valid permit issued under Section 2(j) of this chapter or a valid renewal permit issued under Section 2(f) of this chapter, shall submit a permit renewal application between 270 and 180 days prior to the expiration of said permit unless a closure permit application has been submitted. The renewal application shall contain the information specified in the applicable chapter of these rules and regulations.

(viii) Three (3) copies of the permit renewal application shall be submitted to the administrator. The application shall be organized in three ring binders, and the information presented in an order that conforms to the order set forth in the applicable application requirements sections of these rules and regulations, unless the administrator approves an alternate format for the organization of the application. The applicant shall have the option to submit copies of only the updated and revised portion of the previous application, if the revised and updated pages and drawings are appropriately numbered and dated to facilitate incorporation into the previous permit document and the revisions are clearly identified.

Section 3. Permit Amendments and Transfers: This section applies to all permits, renewal permits and closure permits previously described in Chapter 1, Section 2, as follows:

(a) Permit amendments constituting a major change for municipal solid waste landfills shall comply with the requirements of Chapter 2, Section 2(g) of these rules and regulations.

(b) Permit amendments:

(i) This subsection applies to minor changes of municipal solid waste landfill permits and to all permit amendments for other solid waste facilities.

(ii) The operator shall submit a written application, describing the amendments sought, including additional plates and/or drawings as necessary to completely describe the proposed amendment.

(iii) Within sixty (60) days of receipt of any application for a permit amendment, the administrator shall conduct a review of the application and provide a written response to the operator. If the amendment is deemed to be complete and demonstrates compliance with applicable standards and constitutes a major change, the public notice and comment period in Chapter 1, Section 2(b)(ii) shall commence. If the proposed amendment is determined to be inadequate, the operator shall be

required to submit any additional information required by the administrator, unless there is a basis for denial as specified in Chapter 1, Section 4(a).

(iii) All amendments shall comply with the location, design and construction, operating, monitoring, financial assurance and closure standards of the applicable chapter of these rules and regulations.

(c) Permit transfers:

(i) An operator shall receive written approval from the director prior to transfer of any permit authorized by these regulations.

(ii) Applications for the approval of the transfer of any permit shall be made in writing by the operator and shall contain:

(A) The name, address and telephone number of the legal operator of the facility to whom the permit will be transferred, and, at a minimum, a summary, listing of any administrative order, civil or administrative penalty assessment, bond forfeiture, civil, misdemeanor, or felony conviction, or court proceeding for any violations of any local, state or federal law occurring within a minimum of five (5) years of application submittal relating to environmental quality or criminal racketeering, of the solid waste manager, the applicant, or if the applicant is a partnership or corporation, any partners in the partnership or executive officers or corporate directors in the corporation;

(B) The name, address and telephone number of the solid waste manager;

(C) Proposed date of the transfer of the permit;

(D) Signed and notarized documentation from the new operator indicating that the new operator has agreed to accept and be bound by the provisions of the permit and any amendments, agreed to construct and operate the facility in accordance with the approved plan, and agreed to accept responsibility for the facility's

compliance with the standards specified in the applicable chapter of these rules and regulations, including the responsibility to perform corrective actions.

(iii) The original operator shall retain responsibility for the facility according to the terms of the original permit until the application for permit transfer has been approved by the director. The new operator may not operate the facility until the permit transfer has been approved.

Section 4. Permit Denial, Revocation or Modification. This section applies to all permits, renewal permits and closure permits previously described in Chapter 1, Section 2, as follows:

(a) Permit denials: The director may deny a permit if:

(i) Permit issuance would conflict with the policy and purpose of the act; or

(ii) The applicant fails to submit the required information; or

(iii) The facility history indicates continual noncompliance with these rules and regulations; or

(iv) The application indicates that the facility would not comply with the location, design and construction, operating, monitoring, closure or post-closure standards as specified in the applicable sections of these regulations; or

(v) The application misrepresents actual site conditions; or

(vi) The applicant fails to employ a solid waste manager who meets the qualifications of the applicable chapter of these rules and regulations; or

(vii) The applicant, or any partners, executive officers, or corporate directors, has been found civilly or criminally liable for violations of environmental quality or criminal racketeering laws or regulations which

in the judgement of the director constitutes evidence that the applicant cannot be relied upon to conduct the operations described in the application in compliance with the act and these rules and regulations.

(b) Permit revocation:

(i) The director may revoke a permit in instances of continual noncompliance, or if it is determined that the permit application misrepresented actual site conditions, or if the continued operation is inconsistent with the policy and purpose of the act.

(ii) The director shall notify the operator of his or her intent to revoke the permit. The written notification shall contain the basis for revoking the permit. All permit revocation procedures shall be accomplished in accordance with the requirements of the Wyoming Administrative Procedures Act.

(iii) The director may order facility closure following permit revocation. Closure and post-closure activities shall be accomplished in accordance with a plan approved by the administrator. If a closure/post-closure plan has not been approved, closure and post-closure activities shall be accomplished in accordance with the standards specified in the applicable chapter of these rules and regulations.

(c) Permit modification: The director may modify an existing permit by notifying the facility operator in writing. The written notification shall contain the basis for modifying the permit.

Section 5. One-Time or Emergency Waste Management Authorization Permit.

(a) Authorization application procedure:

(i) This section applies to emergency situations, spilled solid wastes and residues from uncontrolled releases. This section does not apply to hazardous wastes or actions completed under either a hazardous waste permit or a hazardous waste corrective action order.

(ii) The administrator may choose to issue a one-time or emergency waste management authorization in lieu of the permits specified in Chapter 1, Section 2. This type of waste management authorization shall only be considered under the following conditions:

(A) The proposed waste management activity shall be a single occurrence of limited duration.

(B) The applicant documents that other waste management and/or reuse options were thoroughly investigated and that no other reasonable alternatives had been identified.

(C) The proposed waste disposal site would meet the location standards specified in the applicable section of Chapter 2, 3, or 4 of these rules and regulations or the proposed waste management site would meet the location standards specified in the applicable section of Chapter 8 of these rules and regulations.

(D) The proposed waste management activity would not present a significant threat to public health or the environment.

(E) The waste management activity would result in de minimis impacts which would not warrant the initiation of public participation procedures.

(F) The total waste disposal area would be no more than one (1) acre.

(G) The applicant can document that permission has been obtained from the landowner to manage the materials at the proposed waste management location, if that location is not owned by the applicant.

(H) The applicant commits to promptly record a notarized notice with the county clerk, in the county where the facility is located, which adequately describes the location, nature and extent of any waste disposal activity.

(iii) Three (3) copies of the waste management

authorization request shall be submitted to the administrator. The request shall be organized in a three ring binder and the information presented in an order that conforms to the relevant application requirements section of these rules and regulations, unless the administrator approves an alternate format for the organization of the request.

(iv) The waste management authorization request shall document compliance with the conditions specified in subsection (a)(ii) of this section allowing for the administrator's consideration of a one-time or emergency waste management authorization. The request shall contain information adequate to demonstrate compliance with the standards specified in the applicable chapter of these rules and regulations.

(v) The waste management authorization request shall be reviewed by the administrator within twenty (20) days after submission.

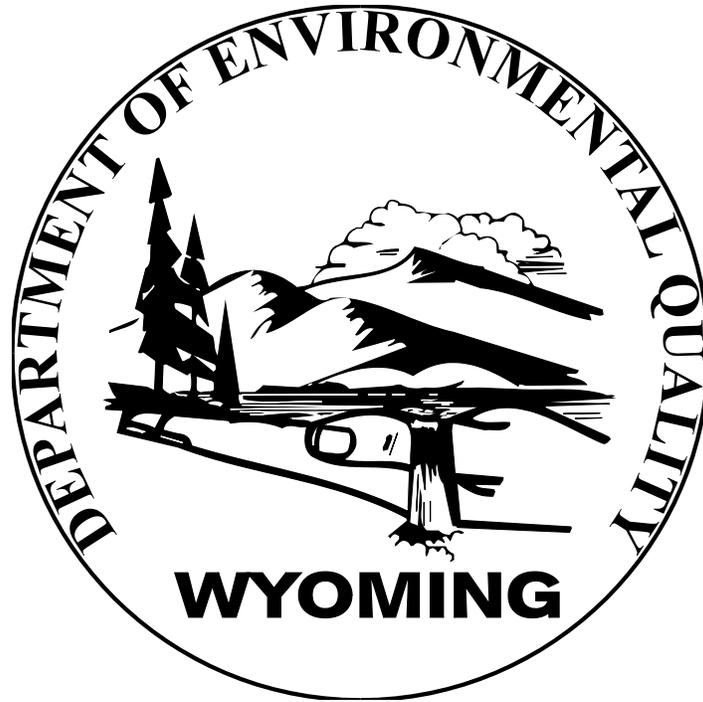
(b) Authorization issuance:

(i) The administrator may deny waste management authorization for any of the reasons specified in Section 4(a) of this Chapter. The administrator may also deny waste management authorization if it is determined that the proposed waste management activity would not be subject to the provisions described in subsections (a)(i) and (a)(ii) of this section.

(ii) If the waste management authorization request is determined to be complete and the request demonstrates compliance with the standards in the relevant application requirements section, a waste management authorization will be granted by the administrator.

(iii) The operator shall notify the administrator following completion of authorized waste management activities. This notification shall be accompanied by site photographs adequate to demonstrate the site conditions following closure.

(iv) The term of the waste management authorization shall be no longer than one (1) year.



**SOLID WASTE  
RULES AND REGULATIONS**

**Chapter 2**

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## CHAPTER 2

### MUNICIPAL SOLID WASTE LANDFILL REGULATIONS

#### Section 1. In General.

(a) Authority: The authority for the rules and regulations promulgated in this chapter is the Wyoming Environmental Quality Act, W.S. 35-11-101 et seq.

(b) Applicability: This chapter governs municipal solid waste landfills.

(c) Objective: The objective of these rules and regulations is to set forth permit application requirements and to establish minimum standards for the location, design, construction, operation, monitoring, closure, and post-closure maintenance of municipal solid waste landfills.

(d) Severability: If any section or provision of these regulations, or the application of that section or provision to any person, situation, or circumstance is adjudged invalid for any reason, the adjudication does not affect any other section or provision of these regulations or the application of the adjudicated section or provision to any other person, situation, or circumstance. The Environmental Quality Council declares that it would have adopted the valid portions and applications of these regulations without the invalid part, and to this end the provisions of these regulations are declared to be severable.

(e) Reserved

(f) One-time or emergency waste management authorization: The one-time or emergency waste management authorization procedure described in Chapter 1, Section 5, will not be considered for the land disposal of municipal solid wastes or mixed wastes.

Section 2. Municipal Solid Waste Landfill Permit Application Requirements.

(a) Permit transition: The following rules concerning permit application submittals under Chapter 1, Section 2 will apply.

(i) Existing facilities:

(A) Existing facilities that have received wastes after September 13, 1989:

(I) Existing facilities with closure permits issued before July 1, 2012, shall continue closure and post-closure under their existing permits.

(II) Existing facilities that intend to cease disposal of all waste before July 1, 2017, need not submit a renewal application, but shall submit a closure permit application no later than twelve (12) months prior to the expiration date of the facility's existing permit or the date the facility is anticipated to cease disposal of waste, whichever comes first.

(III) Existing facilities that do not have a lifetime permit and intend to continue disposal of waste after July 1, 2017, shall submit a permit renewal application twelve (12) months prior to the expiration of their current permit.

(B) Existing facilities that have not received wastes after September 13, 1989:

(I) The operator may be required to submit a closure permit application upon request by the administrator.

(II) The administrator may request such an application whenever the administrator has reason to believe that health and safety hazards are present, there has been evidence of environmental contamination, or the facility does not comply with the location, monitoring, closure or post-closure standards.

(ii) New facilities:

(A) The operator of any new facility shall submit an operating permit application in accord with the requirements set forth in these rules.

(iii) Closing facilities:

(A) Anticipated closure: For facilities where disposal of all waste is anticipated to cease before July 1, 2017, the operator shall submit a closure permit application no later than twelve (12) months prior to the expiration date of the facility's existing permit or the date the facility is anticipated to cease disposal of waste, whichever comes first. For facilities where disposal is anticipated to continue after July 1, 2017, the operator shall submit a closure permit application no later than twelve (12) months prior to the date the facility is anticipated to cease disposal of waste.

(B) Unanticipated closure: In the event any solid waste management facility ceases operation, as determined by nonreceipt of solid wastes for any continuous nine (9) month period, the facility operator shall provide written notification to the administrator no later than thirty (30) days after the end of such nine (9) month period. This notification shall be accompanied by a closure permit application unless the administrator approves interim measures with delayed final closure for good cause upon application by the operator.

(b) Permit application requirements:

(i) All permit application forms shall be signed by the operator, the landowner and any real property lien holder of public record. All applications shall be signed by the operator under oath subject to penalty of perjury. All persons signing the application shall be duly authorized agents. The following persons are considered duly authorized agents:

(A) For a municipality, state, federal or other public agency, by the head of the agency or ranking elected official;

(B) For corporations, at least two principal officers;

(C) For a sole proprietorship or partnership, a proprietor or general partner, respectively.

(ii) All permit applications shall be prepared under the supervision of a professional engineer registered in the State of Wyoming. All permit application forms shall be stamped, signed and dated by a professional engineer. In addition, all portions of the permit application which require geological services or work shall be stamped, signed and dated by a professional geologist.

(iii) The permit application shall contain a completed application form, and the information required in this subsection.

(A) A written report shall be submitted containing the following information:

(I) The name, address and telephone number of the legal operator of the facility to whom the permit would be issued and, at a minimum, a summary, listing of any administrative order, civil or administrative penalty assessment, bond forfeiture, civil, misdemeanor, or felony conviction, or court proceeding for any violations of any local, state or federal law occurring within a minimum of five (5) years of application submittal relating to environmental quality or criminal racketeering, of the solid waste manager, the applicant, or if the applicant is a partnership or corporation, any partners in the partnership or executive officers or corporate directors in the corporation;

(II) Name, address and telephone number of the solid waste manager. A description of the solid waste manager training and examination program to be used by the operator to assure compliance with the requirements of Chapter 2, Section 5(a). The description shall include a specific listing of the training courses,

and the required frequency of attendance at each course by the solid waste manager;

(III) Legal description of the property to be used as a disposal site. The complete legal description shall consist of a plat and legal description, monumented and signed in accordance with W.S. 33-29-111, by a Wyoming licensed land surveyor;

(IV) A brief narrative describing the disposal facility. The narrative should include an estimate of the size of the facility, the type of waste disposal activities that are planned (area fill, trench fill, special waste areas) and the type, amount, and source of incoming waste. The narrative should also describe the service area of the disposal facility;

(V) Information describing surface and mineral ownership of the site and surface ownership of all lands within one (1) mile of the facility boundary;

(VI) Demonstration that the facility meets the minimum location standards specified in Chapter 2, Section 3.

(VII) A summary description of any available regional geologic or hydrologic information, including copies of all available well logs for wells located within one (1) mile of the proposed site.

(VIII) Any information known to the applicant that would limit the site's suitability as a municipal solid waste landfill.

(IX) Site specific data describing the underlying soils, geology and groundwater, including:

(1.) A description of the soil types according to the Unified Soil Classification System, and the estimated thickness of the unconsolidated soil materials;

(2.) Information on the geologic conditions, including structure, bedrock types, estimated

thickness and attitude, and fracture patterns;

(3.) Identification of unstable areas caused by natural features or man-made features or events, and which may result in geologic hazards including, but not limited to, slope failures, landslides, rockfalls, differential and excessive settling or severe erosion;

(4.) Identification of any seismic impact zones, fault areas, floodplains, and wetlands;

(5.) Depth to the uppermost groundwater. Information on groundwater aquifer thickness and hydrologic properties such as the groundwater flow direction and rate, and the potentiometric surface;

(6.) Existing quality of groundwater beneath the facility; identification of background water quality data;

(7.) Supporting documentation such as well completion logs, geologic cross-sections, soil boring lithologic logs, potentiometric surface maps and soil or groundwater testing data should be supplied as an appendix.

(X) A detailed description of the facility operating procedures, site design and construction methods. The description shall include the following information:

(1.) The service area (source of wastes) and the type and quantity of waste (on a daily, weekly or monthly basis) that will be disposed at the facility;

(2.) Estimated site capacity, in tons and cubic yards of waste, and site life, including the calculations on which these estimates are based;

(3.) An evaluation of the facility's potential to impact surface and groundwater

quality, based on the facility design and the hydrogeologic information required in subsection (b) (iii) (A) (IX) of this section;

(4.) An evaluation of the availability of cover material sufficient to properly operate the facility through the closure period;

(5.) A detailed description of the facility liners, caps, berms, or other containment devices that will be used, along with the methods of construction and associated construction quality control program;

(6.) A description of the systems used for monitoring, collection, treatment and disposal of leachate, if required;

(7.) A description of the fire and other emergency protection measures;

(8.) A description of the topsoil handling procedures to be used, including measures to be used to protect the piles from erosion;

(9.) A description of the signs that will be posted to identify the landfill and listing the information required in Chapter 2, Section 4(c);

(10.) A description of the litter control program, including the frequency for litter collection for internal fences, perimeter roads and off-site areas special operating procedures to be used during periods of high wind, and a summary of any wind speed and direction data available for the local area;

(11.) Type and amount of equipment to be provided at the site for excavating, earth moving, spreading, compaction and other needs; the specific purpose for each piece of equipment and the source and procedure used to obtain backup equipment;

(12.) A description of the special waste areas, and how they will be operated;

(13.) Any other information necessary to demonstrate compliance with the design, construction and operating standards specified in Chapter 2, Section 4 and Chapter 2, Section 5.

(XI) A detailed descriptive statement of the environmental monitoring program, including the following information:

(1.) A description of the monitoring well location, design, construction, and development;

(2.) A description of the groundwater sampling program including sampling frequency, test parameters, sampling procedures, test methods and quality control;

(3.) A description of the methane gas system for venting and/or monitoring including system location, design and construction;

(4.) A description of the methane gas monitoring frequency, procedures and test parameters, if required;

(5.) Any other information necessary to demonstrate compliance with the monitoring standards specified in Chapter 2, Section 6.

(XII) A detailed descriptive statement of the closure/post-closure stage of landfill development, including the following information:

(1.) A description of the land use anticipated after closure;

(2.) The wording of the deed notice;

(3.) A copy of the notice of closure for the public;

(4.) A description of the final soil cover, as well as methods used to revegetate the site;

(5.) The method and length of time that surface water will be diverted from the site;

(6.) The methods by which surface erosion or water ponding problems will be corrected, including the frequency of planned inspections to discover such problems during the post-closure period;

(7.) The method by which any environmental monitoring systems and corrective action systems will be maintained, including the time period over which this will occur;

(8.) The length of time and method by which the operator will maintain access restrictions to any closed facility;

(9.) Any other information necessary to demonstrate compliance with the closure/post-closure standards specified in Chapter 2, Section 7.

(B) An original USGS topographic map with a scale of 1:24,000 with the proposed facility location shown; an original USGS topographic map with a scale of 1:62,500 or other suitable topographic map may be submitted if a 1:24,000 map is unavailable.

(C) A map or aerial photograph of the area shall be submitted showing land ownership, land use and zoning within one (1) mile of the disposal site. The map or photograph shall be of sufficient scale to show all city boundaries, each occupied dwelling house, schools, hospitals, industrial buildings, water wells, water courses, roads and other applicable details and shall indicate the general topography.

(D) A general facility plot plan at a scale not greater than 200 feet to the inch with five (5) foot contour intervals shall be submitted. The general facility plot plan shall illustrate the following

features:

(I) Facility boundaries, including any buffer zones proposed between the solid waste boundary and the property boundary;

(II) Points of access;

(III) Location of soil borings, groundwater monitor wells, and methane monitor wells;

(IV) Location of proposed trenches or area fill locations;

(V) Working area/perimeter fire lane;

(VI) Locations of any facility buildings to house equipment or for other uses;

(VII) Working area/perimeter fence location;

(E) Additional facility plot plans at the same scale as the general facility plot plan, shall be submitted as necessary to show orderly development and use of the facility through the life of the site. These plot plans shall contain the following information:

(I) Excavation plans for development of trenches or preparation of area fill locations.

(II) Development of temporary surface water diversion structures which may be necessary to adequately control surface water run-on and run-off;

(III) Access to active waste disposal areas, including development of internal roads;

(IV) Daily cover stockpile locations;

(V) Topsoil storage pile locations;

(VI) Litter screen placement information;

(VII) Location of special waste management or disposal areas;

(VIII) Other details pertinent to the development and use of the facility.

(F) A map showing proposed final contours prepared at a scale no greater than 200 feet to the inch, with five (5) foot contour intervals, shall be submitted.

(G) Cross sections and/or drawing details shall be submitted with sufficient specifications to describe:

(I) Internal litter catch screens or fences;

(II) Working area/perimeter fencing;

(III) Access roads;

(IV) Trench or area fill method;

(V) Special waste areas, where appropriate;

(VI) Systems used for monitoring, collection, treatment and disposal of leachate, if required;

(VII) Groundwater monitoring well design;

(VIII) Methane gas venting and monitoring system;

(IX) Surface and subsurface drain systems to control run-on and run-off and/or inflow;

(X) All components of engineered containment systems, if applicable, which include, but are not limited to, liners, caps and berms;

(XI) Any other design details requested by the administrator.

(H) A copy of the recordkeeping log maintained during the operating life and closure/post-closure maintenance period shall be submitted.

(I) Facilities for which engineered containment systems are required shall submit construction quality assurance/quality control (QA/QC) plans describing the following construction and testing characteristics:

(I) For engineered clay barrier layers, the QA/QC plan shall describe how clay moisture content will be maintained or adjusted, the technique by which lift thickness will be maintained, the manner in which clay lifts will be compacted, the method used to measure clay moisture content and density in the field during construction, and the frequency of moisture content and density testing.

(II) For synthetic membranes, the QA/QC plan shall describe the method used to test 100% of all seams for leaks, the frequency of destructive testing for seam strength, the layout pattern for each roll of membrane material, the procedure to be followed for post-installation defect identification and repair, the results of testing or literature review which demonstrates the compatibility of the membrane material with the waste and/or waste leachate, and the procedures used to assure each roll of membrane material meets the manufacturer's specifications for material properties.

(III) For lateral drainage layers, the QA/QC plan shall describe the method used to assure achievement of the approved grain size uniformity and layer thickness for granular layers, the method by which drainage layers shall be installed without damaging any imbedded leachate collection system, leak detection system or membrane, and the installation procedure for the filter fabric or granular filter layer overlying the drainage layer.

(iv) The permit application shall contain

information demonstrating compliance with the standards in Chapters 6, 7, 8, and/or 10, if applicable.

(c) Renewal application requirements:

(i) Renewal applications shall be submitted as required in Chapter 1, Section 2(e).

(A) Each renewal application shall include a compilation of any available previous permit application materials and supplemental information updated and revised as necessary to fulfill the information requirements specified in subsection (b) of this section, except for (b)(iii)(A)(V) [mineral and surface ownership] and (b)(iii)(A)(VIII) [site suitability].

(B) Each renewal application submitted in accordance with the requirements of Chapter 1, Section 2(e) shall include a copy of the approved permit application or the previous approved renewal permit application, with drawings and narrative updated and revised as necessary to document the facility operations and activities carried out during the previous permit term. If such activities differed from those in the approved permit or previously approved renewal permit, the application shall describe the minor changes and approved major amendments. The applicant shall have the option to submit copies of only the updated and revised portion of the previous application, if the revised and updated pages and drawings are appropriately numbered and dated to facilitate incorporation into the previous permit document.

(ii) All renewal applications shall contain the following information:

(A) Any necessary plan revisions for the upcoming permit renewal period. Any requests for approval of amendments;

(B) Detailed construction and operation specifications for the upcoming permit period, if such specifications were not included in an approved facility permit application;

(C) Assessment of site life remaining. If less than five (5) years of capacity remains, a description of steps taken to secure a new facility or alternate waste management options shall be included;

(D) Description of intermediate reclamation efforts, with evaluation of revegetation results;

(E) A description of steps taken to mitigate or correct practices that have resulted in past operational deficiencies; and

(F) Any necessary information demonstrating compliance with the standards in Chapters 6, 7, 8 and/or 10, if applicable.

(d) Closure permit application requirements:

(i) Closure permit applications shall be submitted as required in Section 2(a) of this chapter.

(A) Each closure permit application submitted in accordance with the requirements of Section 2(a) of this chapter, shall contain the following information in addition to the information required in subsection (d)(i)(B) of this section:

(I) A narrative describing the site operating history including the dates of operation, the disposal methods used and the types and amounts of waste accepted;

(II) A general facility plot plan at a scale not greater than 200 feet to the inch illustrating past areas of waste deposition, estimated dates of fill and any other pertinent features;

(III) Data on site geology and hydrology as specified in subsections (b)(iii)(A)(VII) and (b)(iii)(A)(IX) of this section;

(IV) A map of the site area as

specified in subsection (b) (iii) (C) of this section;

(V) An evaluation of the facility's potential to impact surface water and groundwater quality, based on the hydrogeologic information and the facility's design and operating history.

(B) Each closure permit application shall contain a permit application form signed in the manner described in Sections 2(b) (i) and 2(b) (ii) of this chapter and the following information; a copy of the pertinent materials from the approved permit application or approved renewal permit application, revised and updated as necessary, may be used to fulfill these requirements:

(I) General site information specified in subsections (b) (iii) (A) (I) through (b) (iii) (A) (III) of this section;

(II) Environmental monitoring system information specified in subsection (b) (iii) (A) (XI) of this section;

(III) Closure/post-closure information specified in subsection (b) (iii) (A) (XII) of this section;

(IV) A final contour map specified in subsection (b) (iii) (H) of this section; and

(V) Any supporting documentation listed in subsections (b) (iii) (I) and (J) of this section that is pertinent to the closure/post-closure phase.

(ii) The closure permit application requirements shall contain information demonstrating compliance with the closure standards in Chapters 6, 7 and/or 8, if applicable.

(e) Permit terms:

(i) Effective July 1, 2012, new municipal solid waste landfill operating permits and renewal permits for existing municipal solid waste landfills shall be lifetime

permits.

(ii) Closure permits shall be for a period which includes the time required to complete closure activities and the minimum post-closure term specified in Section 7(q) of this chapter. The closure permit period will extend until the administrator finds that the facility has been adequately stabilized and the environmental monitoring or control systems have demonstrated that the facility closure is protective of human health and the environment consistent with the purposes of the act.

(f) Financial assurance requirement: Any operator of a municipal solid waste landfill subject to the financial assurance requirements of Chapter 7 shall provide and maintain adequate assurance of financial responsibility as specified therein, prior to issuance of a permit by the director.

(g) Permit amendments constituting a major change: All amendments constituting a major change shall comply with the location, design and construction, operating, monitoring, financial assurance and closure standards of the applicable chapters of these rules and regulations. No amendment shall be implemented by the operator without the prior written authorization of the administrator.

(i) The operator shall submit two (2) complete paper copies and one (1) complete electronic copy of the proposed amendment. Permit amendments may be proposed independently or in conjunction with a permit renewal or closure permit application. Permit amendments may be proposed in conjunction with annual reports, but must be separately designated as amendments. Permit amendments proposed in conjunction with annual reports will be processed in accordance with Chapter 1, Section 3 of these rules. The application shall include a cover letter describing in detail the amendment sought. The application for amendment shall include revisions to the permit application sufficient to fully describe the proposed amendment including a revised table of contents and replacement text, plates, and/or drawings which are fully formatted and numbered for insertion into the permit

application.

(ii) The administrator shall conduct a completeness review and notify the applicant within sixty (60) days of receipt of the application whether or not it is complete. If the administrator deems the application incomplete, he or she shall so advise and state in writing to the applicant the information required. All items not specified as incomplete at the end of the first sixty (60) day period shall be deemed complete for the purposes of this subsection.

(A) If the applicant resubmits an application or further information, the administrator shall review the application or additional information within sixty (60) days of each submission and advise the applicant in writing if the application is complete.

(B) After the application is determined complete, the applicant shall give written notice of the application as required in Chapter 1, Section 2(b)(i)

(iii) The administrator shall review the application and unless the applicant requests a delay, advise the applicant in writing within ninety (90) days from the date of determining that the application is complete, that a proposed permit amendment is suitable for publication under Chapter 1, Section 2(b)(ii), or that the application is deficient, or that the application is denied. All reasons for deficiency or denial shall be stated in writing to the applicant. All items not specified as being deficient at the end of the first ninety (90) day period shall be deemed sufficient for the purposes of this subsection.

(A) If the applicant submits additional information in response to any deficiency notice, the administrator shall review such additional information within thirty (30) days of submission and advise the applicant in writing if a proposed permit amendment is suitable for publication, or that the application is still deficient, or that the application is denied.

(B) If the application is determined to be

complete and demonstrates compliance with the applicable standards, the administrator shall prepare a proposed permit amendment. The applicant shall provide public notice as specified in Chapter 1, Section 2(b)(ii).

(C) If no hearing is requested, the director shall render a decision on the proposed permit amendment within thirty (30) days after completion of the notice period. If substantial written objections are received by the director by 5:00 pm on the last day of the public comment period, a public hearing will be held within twenty (20) days after the last day of the public comment period, unless a different schedule is deemed necessary by the council. The council or director shall publish notice of the time, date, and location of the hearing in a newspaper of general circulation in the county where the applicant plans to locate the facility or where the facility is located, once a week for two (2) consecutive weeks immediately prior to the hearing. The hearing shall be conducted as a contested case in accordance with the Wyoming Administrative Procedures Act, and right of judicial review shall be afforded as provided in that Act. The director shall issue or deny the permit amendment no later than fifteen (15) days from receipt of any findings of fact and decision of the environmental quality council.

(D) In granting permit amendments, the director may impose such conditions as may be necessary to accomplish the purpose of the act and which are not inconsistent with the existing rules, regulations, and standards.

### Section 3. Location Standards.

(a) New facilities: New municipal solid waste landfills shall not be located in violation of the standards described in this section.

(i) Airport proximity: Facilities containing putrescible wastes capable of attracting birds are prohibited within 5,000 feet of any airport runway used by only piston-type aircraft, and within 10,000 feet of any airport runway used by turbojet aircraft. Effective April

5, 2000, new municipal landfill units must comply with Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century. The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century requires that after April 15, 2000, no new facility that receives putrescible waste capable of attracting birds shall be constructed within 6 miles of a public airport that has received grants under 49 U.S.C. Chapter 471 and is primarily served by general aviation aircraft and regularly scheduled flights of aircraft designed for 60 passengers or less unless the Wyoming Department of Transportation, Aeronautics Division requests that the Administrator of the Federal Aviation Administration exempt the landfill from this requirement and the Administrator determines that such exemption would have no adverse impact on aviation safety. For the purposes of this section putrescible waste means solid waste which contains organic matter capable of being decomposed by microorganisms and of such a character and proportion as to be capable of attracting or providing food for birds.

(ii) Local zoning ordinances: Facility locations shall not be in conflict with local zoning ordinances or land use plans that have been adopted by a county commission or municipality.

(iii) Distance to residences and other buildings: Except upon a variance granted by the director in accord with W.S. 35-11-502(c), no facility greater than one (1) acre in size shall be located between 1,000 feet and one (1) mile of a public school except with the written consent of the school district board of trustees, or between 1,000 feet and one (1) mile of an occupied dwelling house except with the written consent of the owner. Additionally, facilities of any size shall not be located within 1,000 feet of any occupied dwelling house, school or hospital, and shall not be located within 300 feet of any building unless provisions have been made for protection from methane gas accumulation.

(iv) Distance to roads and parks:

(A) Except upon a variance granted by the director in accord with W.S. 35-11-502(c), no facility

greater than one (1) acre in size shall be located between 1,000 feet and one-half ( $\frac{1}{2}$ ) mile of the center line of the right-of-way of a state or federal highway unless screened from view as approved by the administrator. Additionally, facilities of any size shall not be located within 1,000 feet of any interstate or primary highway right-of-way, unless the facility is screened from view by natural objects, plantings, fences or other appropriate means, and is authorized by the state highway commission in accord with provisions of the Junkyard Control Act, W.S. 33-19-103 et seq.

(B) Facilities shall not be located within 1,000 feet of any public park or recreation area unless the facility is screened from view by natural objects, plantings, fences or other appropriate means.

(v) Distance to drinking water sources: Except upon a variance granted by the director in accord with W.S. 35-11-502(c), no facility greater than one (1) acre in size shall be located between 1,000 feet and one-half ( $\frac{1}{2}$ ) mile of a water well permitted or certificated for domestic or stock watering purposes except with written consent of the owner of the permit or certificate. Additionally, facilities of any size shall not be located within 1,000 feet of any drinking water source such as a well or surface water intake.

(vi) Distance to other surface waters:

(A) Facilities shall not be located within 1,000 feet of any perennial lake or pond which is either naturally occurring, or which contains water used for any purpose not directly related to an industrial process.

(B) Facilities shall not be located within 300 feet of any industrial process water or storm water management pond.

(C) Facilities shall not be located within 300 feet of any perennial river or stream.

(vii) Floodplains: Facilities shall not be located within the boundaries of a 100-year floodplain.

(viii) Wetlands: Facilities shall not be located in wetlands.

(ix) Wild and Scenic Rivers Act: Facility locations shall not diminish the scenic, recreational and fish and wildlife values for any section of river designated for protection under the Wild and Scenic Rivers Act, 16 USC 1271 et seq., and implementing regulations.

(x) National Historic Preservation Act: Facilities shall not be located in areas where they may pose a threat to an irreplaceable historic or archeological site listed pursuant to the National Historic Preservation Act, 16 USC 470 et seq. and implementing regulations, or to a natural landmark designated by the National Park Service.

(xi) Endangered Species Act: Facilities shall not be located within a critical habitat of an endangered or threatened species listed pursuant to the Endangered Species Act, 16 USC 1531 et seq., and implementing regulations, where the facility may cause destruction or adverse modification of the critical habitat, may jeopardize the continued existence of endangered or threatened species or contribute to the taking of such species.

(xii) Big game winter range: Facilities shall not be located within critical winter ranges for big game unless after considering information from the Wyoming Game and Fish Department, the administrator determines that facility development would not conflict with the conservation of Wyoming's wildlife resources.

(xiii) Fault areas: Facilities shall not be located within 200 feet of a fault that has had displacement in Holocene time.

(xiv) Avalanche areas: Facilities shall not be located in documented avalanche prone areas.

(xv) Hydrogeologic conditions: Facilities shall not be located in an area where the administrator, after investigation by the applicant, finds that there is

a reasonable probability that solid waste disposal will have a detrimental effect on surface water or groundwater quality.

(xvi) Distance from incorporated cities or towns: Except upon a variance granted by the director in accord with W.S. 35-11-502(c), no facility greater than one (1) acre in size shall be located within one (1) mile of the boundaries of an incorporated city or town.

(xvii) Compliance with other standards: Facilities which are also subject to regulation under Chapters 6 or 8 of these rules and regulations shall not be located in violation of the standards in those chapters.

(b) Existing facilities:

(i) Applicability: Effective on the dates specified in paragraph (b)(ii) of this section, existing municipal solid waste landfills must make the following determinations demonstrating that the requirements of this paragraph have been met, place those determinations in the operating record of the facility, and notify the administrator that the determinations have been placed in the operating record:

(A) Airports: Existing facilities, new landfill units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not be located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used by only piston-type aircraft, unless the owner demonstrates to the administrator that the facilities, units, or area fills are designed and operated so that they do not pose a bird hazard to aircraft. Owners proposing to place solid wastes in new landfill units at existing facilities, or place solid wastes onto horizontal expansions of area fills at existing facilities which are located within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the federal aviation administration;

(B) Floodplains: Existing facilities, new landfill units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not be located within the boundaries of a 100-year floodplain, unless the owner demonstrates to the administrator that the facility, unit, or fill will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment;

(C) Wetlands: New landfill units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not be located in wetlands unless the owner demonstrates to the administrator that:

(I) There is no practicable alternative location;

(II) There will not be a violation of any state or federal water quality standard, the Endangered Species Act of 1973, or the Marine Protection, Research, and Sanctuaries Act of 1972;

(III) The unit or area fill will not cause or contribute to degradation of the wetlands, considering all factors necessary to demonstrate that ecological resources in the wetlands are sufficiently protected including:

(1) Erosion, stability, and migration potential of native wetland soils, muds and deposits used to support the unit;

(2) Erosion, stability, and migration potential of dredged and fill materials used to support the unit;

(3) The volume and chemical nature of the waste managed in the unit;

(4) Impacts on fish, wildlife, and other aquatic resources and their habitat from release

of the waste;

(5) The potential effects of catastrophic release of waste to the wetland and the resulting impacts on the environment;

(6) Any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected;

(IV) There will be no net loss of wetlands, considering any mitigation steps taken by the owner; and

(V) The owner has sufficient information to make a reasonable determination with respect to items (I) through (IV) of this subsection;

(D) Fault areas: New landfill units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not be located within 200 feet (60 meters) of a fault that has had displacement in Holocene time, unless the owner demonstrates to the administrator that an alternative setback distance of less than 200 feet (60 meters) will prevent damage to the structural integrity of the unit or area fill and will be protective of human health and the environment;

(E) Seismic impact zones: New landfill units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not be located in seismic impact zones, unless the owner demonstrates to the administrator that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site;

(F) Unstable areas: New landfill units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not be located in an unstable area unless the owner has demonstrated to the administrator that engineering measures have been incorporated into the facility's, unit's, or area fill's

design to ensure that the integrity of the structural components of the facility, unit, or area fill will not be disrupted. The demonstration must consider:

(I) On-site or local soil conditions that may result in significant differential settling;

(II) On-site or local geologic or geomorphologic features; and

(III) On-site or local human-made features or events (both surface and subsurface).

(c) Access roads: The roads leading to municipal solid waste landfills shall not be subject to the location standards described in this section.

Section 4. Design and Construction Standards. Each facility shall be designed and constructed in compliance with the standards listed in this section.

(a) Surveyed corners: All site boundary corners shall be surveyed and marked with permanent survey caps.

(b) Access restrictions:

(i) The working area of all facilities shall be fenced in such a manner as to discourage people and livestock from entering the facility and to contain litter within the facility. Additional fencing may be required to restrict access to reclaimed areas or other areas that may present public health and safety hazards.

(ii) All access roads shall be equipped with a gate which can be locked when the facility is unattended.

(c) Posting: Each point of access shall be identified by a sign, which shall be easily readable and shall be maintained in good condition, and which contains at a minimum the following information:

(i) The facility name;

(ii) The name and phone number of the

responsible person to contact in the event of emergencies;

(iii) The hours of operation;

(iv) Wastes that are prohibited from disposal at the facility;

(v) A requirement to notify the landfill operator of any asbestos wastes.

(d) Access roads: Facility access roads shall be constructed to enable use under inclement weather conditions.

(e) Firelanes: All facilities shall have a fire lane which is a minimum of ten (10) feet wide around all active solid waste management units or within the perimeter fence.

(f) Buffer zones: All facilities shall have a buffer zone which is a minimum of twenty (20) feet within the facility perimeter fence.

(g) Topsoil: Topsoil from all disturbed areas shall be stripped and stockpiled in an area which will not be disturbed during facility operation. These stockpiles shall be identified by signs, and vegetated as required for stabilization. This topsoil will be used for site reclamation. Topsoil shall not be removed from the facility without written authorization from the administrator.

(h) Structural stability: Engineering measures shall be incorporated into the landfill design and construction to ensure stability of structural components in unstable areas, fault areas, and seismic impact zones. Landfill designs in unstable areas shall consider the factors described in Section 3(b)(i)(F). Landfill designs in seismic impact zones shall consider the factors described in Section 3(b)(i)(E).

(i) Surface water structures: Surface water structures shall be designed and constructed to control surface water run-on and run-off as follows:

(i) Temporary structures anticipated to be used for periods less than five (5) years shall accommodate a 25-year, 24-hour precipitation event;

(ii) Permanent structures and temporary structures anticipated to be used for five (5) years or longer shall accommodate a 100-year, 24-hour precipitation event.

(iii) Sediment control structures shall be designed and constructed in accordance with Chapter 11 of the Water Quality Division Rules and Regulations.

(j) Engineered containment system requirement: The following engineered containment system requirements are set out in W.S. 35-11-526 and W.S. 35-11-527.

(i) Performance based design and performance based evaluation in consideration and approval of engineered containment systems as part of municipal solid waste landfill permits.

(A) A person submitting an application for a permit pursuant to W.S. 35 11 502 which contains a performance based design for a municipal solid waste landfill that does not incorporate an engineered containment system utilizing a composite liner and leachate collection system, shall submit a report with the application. The report shall contain the applicant's findings as to the proposed performance based design's compliance with applicable state and federal laws and regulations. The report shall contain scientific and engineering data supporting the implementation of the proposed design.

(B) In reviewing scientific and engineering data related to a permit application and report containing a performance based design which does not incorporate an engineered containment system utilizing a composite liner and leachate collection system, the administrator shall prepare a detailed performance evaluation based on applied scientific and engineering data that adheres to W.S. 35 11 527. The administrator

shall determine in the performance evaluation whether to validate or invalidate the performance based design or an alternative performance based standard for landfill design contained in the permit application. The administrator shall base the performance based evaluation on acceptable applied scientific and engineering data and an analysis of that data using statistical procedures, including statistical power, when applicable.

(C) The applicant or other interested party may appeal the administrator's determination contained in a performance based evaluation of a permit pursuant to W.S. 35 11 502. If the council determines that the performance based evaluation does not accurately or adequately identify and evaluate all the data and criteria required under this section and W.S. 35 11 527, the council shall direct the administrator to reevaluate his determination. A decision by the council that the performance based evaluation is accurate and adequate shall be a final decision of the agency pursuant to the Wyoming Administrative Procedure Act.

(ii) Performance based design evaluation criteria for municipal solid waste landfill units.

(A) New municipal solid waste landfill units and lateral expansions approved by the administrator under W.S. 35 11 502 and 35 11 526 shall be constructed:

(I) In accordance with a performance based design approved by the administrator in a performance based evaluation pursuant to W.S. 35 11 526. Any performance based design approved must ensure that the concentration values for pollutants listed in the National Primary Drinking Water Regulations, 40 C.F.R. Part 141, will not be exceeded in the uppermost aquifer at the relevant point of compliance as determined under subsection (c) of this section; or

(II) With an engineered containment system that utilizes a composite liner and a leachate collection system that is designed and constructed to maintain less than a thirty (30) centimeter depth of leachate over the liner.

(B) When approving a design that complies with paragraph (a)(i) of this section, in addition to the requirements of W.S. 35 11 526 the administrator shall consider other relevant factors, including, but not limited to:

(I) The hydrogeologic characteristics of the facility and surrounding land;

(II) The climatic factors of the area; and

(III) The physical and chemical characteristics and volume of the leachate.

(C) The relevant point of compliance specified by the administrator for the allowable concentration values for pollutants under paragraph (a)(i) of this section shall be no more than one hundred fifty (150) meters from the waste management unit boundary and shall be located on land owned by the owner of the municipal solid waste landfill. In determining the relevant point of compliance, the administrator shall consider at least the following factors:

(I) The hydrogeologic characteristics of the facility and surrounding land;

(II) The physical and chemical characteristics and volume of the leachate;

(III) The quantity, quality and direction of flow of ground water in the area;

(IV) The proximity and withdrawal rate of ground water users;

(V) The availability of alternative sources of drinking water supplies;

(VI) The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water and whether

the ground water is currently used or reasonably expected to be used for drinking water;

(VII) Public health, safety and welfare effects; and

(VIII) Practicable capability of the owner or operator.

(k) Design/construction of engineered containment systems: Engineered containment systems shall be designed and constructed to meet these standards:

(i) Engineered barrier layers forming caps and/or liners constructed of clay shall have a maximum vertical hydraulic conductivity of  $1 \times 10E-7$  cm/sec (0.1 ft/yr). These barrier layers shall have a minimum thickness of 24 inches. Clay barrier layers shall be constructed in lifts which do not exceed six (6) inches in thickness, and uniform compaction of these lifts shall be assured through the use of appropriate equipment. Clay barrier layers forming a cap shall be overlain by a layer of soil which is of suitable thickness to protect the clay barrier layer from frost penetration.

(ii) All engineered containment system components shall be supported by material of sufficient bearing strength to prevent subsidence and failure of any component. This bearing strength shall be documented through materials testing as specified by the administrator.

(iii) Synthetic membranes used as part of any containment system shall be of a material and thickness which is suitable for the intended use, but in no case shall be less than 0.030 inches thick (30 mils). All synthetic membranes shall be underlain by a suitable bedding material.

(iv) Lateral drainage layers included in composite cap and liner system designs shall be composed of either granular material or a synthetic drain net of suitable lateral permeability to promote acceptable drainage, as approved by the administrator. Lateral

drainage layers shall be protected from soil clogging by either a synthetic filter fabric or a graded granular layer of a design approved by the administrator.

(v) Leachate collection systems installed as part of an engineered containment system shall be sized and designed to efficiently collect and transport leachate. Leak detection systems shall be designed to efficiently identify failure of the overlying barrier layer.

(vi) The quality assurance/quality control (QA/QC) plan for engineered containment systems shall assure adequate construction and testing of the containment system components, as called for in the design specifications in the facility plan.

(vii) Detailed design plans, including but not limited to plans for liners, leachate collection and management systems, caps and associated QA/QC plans shall be submitted as part of the lifetime permit or renewal as applicable. Additional or modified detailed design plans for engineered containment systems shall be submitted as a minor change unless a design change is proposed that constitutes a major change.

(l) Volumetric capacity limit for refuse units with engineered containment systems: No refuse unit for which an engineered containment system is required shall have a volumetric capacity of greater than 1,000,000 cubic yards, unless the operator can demonstrate that the liner leak detection system is capable of isolating the location of any leak which occurs in the primary liner.

(m) Slope stability for excavations: Trench walls shall not exceed a ratio of 1.5:1 (horizontal:vertical) unless a slope stability analysis demonstrates steeper slopes can be safely constructed and maintained. This analysis may be based on site specific soil stability calculations or Wyoming Occupational Safety and Health Administration regulations for excavations.

(n) Litter control structures: Litter control structures shall be designed and constructed to control

litter within the facility.

(o) Methane control systems for on-site structures: All structures on the landfill facility will be designed to prevent the accumulation of methane such that the concentration of methane gas in facility structures does not exceed twenty-five percent (25%) of the lower explosive limit (LEL) for methane.

(p) Special waste management standards: Any facility used for the management of a special waste regulated under Chapter 8, Special Waste Management Standards, shall also comply with the applicable design and construction standards established under Chapter 8.

(q) Transfer, treatment and storage facility standards: Any facility used for the transfer, treatment or storage of solid wastes shall also comply with the applicable design and construction standards established under Chapter 6.

Section 5. Operating Standards. All facilities shall be operated in accordance with the standards described in this section.

(a) Qualified Solid Waste Manager: Each facility shall be managed by a qualified solid waste manager. In the event that a qualified solid waste manager terminates employment for any reason, a new solid waste manager shall be designated within three (3) months of such termination. For any facility which is constructed, operated and monitored in compliance, the solid waste manager's qualifications shall be presumed to be adequate. For any facility which is not being constructed, operated, or monitored in compliance, the solid waste manager may be required to complete additional training and/or demonstrate his or her qualifications by written or oral examination. A qualified solid waste manager shall:

(i) Possess a complete working knowledge of the facility construction, operating and monitoring procedures, as specified in the permit application and the permit letter issued by the director.

(ii) Attend the classroom or field training program described in the approved permit application, which shall include training for the identification of PCB wastes and hazardous wastes regulated under Subtitle C of the Federal Resource Conservation and Recovery Act and the state hazardous wastes rules and regulations.

(iii) Attend any training course sponsored by the administrator, which the administrator requires to provide training on changes to state or federal solid waste rules or guidelines. For any such mandatory training course, the administrator shall provide each operator with a minimum of ninety (90) days notice prior to the scheduled training course.

(iv) Comply with the requirements of this subsection:

(A) No later than six (6) months following assumption of responsibility for operating a facility, for a new solid waste manager; or

(B) No later than six (6) months following the date the facility is permitted under this chapter, for an existing solid waste manager.

(b) Copy of plan: A copy of the operating plan shall be available at the facility when landfill personnel are on-site.

(c) Equipment/backup equipment: All facilities shall have equipment that is adequate to deposit, compact and cover refuse. In the event of equipment breakdown, backup equipment shall be obtained to insure compliance with the compaction and covering requirements of these rules and regulations.

(d) Access Restrictions:

(i) Public access shall be controlled and unauthorized vehicular traffic and illegal dumping of wastes shall be prevented by using artificial barriers, natural barriers, or both, as appropriate to protect human health and the environment.

(ii) Effective on the dates in paragraph (f)(iii) of this section, facility access gate(s) shall be closed and locked to restrict access by the public to the active disposal area of the facility at the end of each operating day.

(iii) The requirements of paragraph (f)(ii) of this section shall be effective on:

(A) October 9, 1993, for Type I municipal solid waste landfills;

(B) April 9, 1994, for Type I municipal solid waste landfills receiving less than one hundred (100) tons per day of municipal solid wastes; and

(C) October 9, 1997, for Type II municipal solid waste landfills.

(e) Liquid wastes: Bulk or noncontainerized liquid wastes may not be placed in a municipal solid waste landfill, unless the facility has been permitted by the director to receive such wastes at a separate solid waste management unit or unless the wastes have been treated to pass the paint filter liquids test. Containerized liquid wastes that are not household wastes, and are in containers that are larger than those normally disposed by households, may not be placed in a municipal solid waste landfill unless the facility has been permitted by the director to receive such wastes and the wastes have been treated to pass the paint filter liquids test.

(f) Hazardous wastes:

(i) No municipal solid waste landfill may accept regulated quantities of hazardous wastes. Hazardous waste excluded under Subtitle C of the Federal Resource Conservation and Recovery Act and Chapter 2 of the state hazardous waste rules and regulations may be accepted if specific authorization is granted in writing by the administrator;

(ii) The facility operator shall implement a

program of random inspections of incoming solid wastes or take other steps to detect and prevent the disposal of regulated hazardous wastes and PCB wastes; and

(iii) The facility operator shall promptly notify the administrator if regulated hazardous wastes or PCB wastes are discovered at the facility.

(g) Dead animals: Dead animals shall be covered daily whenever carcasses are disposed. Dead animals may be disposed with municipal solid waste or in a separate area.

(h) Traffic: Signs shall be posted to direct traffic to the proper area for dumping.

(i) Salvaging: Salvaging, if permitted, shall be conducted in such a manner as not to interfere with normal operations.

(j) Burning: No open burning of solid waste is allowed, with the exception of infrequent burning of clean wood, tree trimmings, brush, agricultural wastes, silvicultural wastes, land clearing debris, diseased trees, or debris from emergency cleanup operations; this exception is valid only when the operator has obtained a permit from the Air Quality Division.

(k) Fire protection and other emergency protection measures: Facilities shall maintain, at a minimum, an unobstructed ten (10) foot firelane around all solid waste management units or within the perimeter fence. The landfill personnel shall have access to portable fire extinguishers when on-site. Depending on the facility location, personnel may be required to have a communication system (radio, telephone, etc.) with which to alert the local fire department.

(l) Litter: Each facility shall maintain an effective routine litter collection program. These routine programs shall take place both within the landfill perimeter, as well as off-site. Special operating practices may be required for use during high wind periods.

(m) Vectors: On-site populations of disease vectors shall be prevented or controlled using techniques appropriate for the protection of human health and the environment.

(n) Dust and odors: Adequate measures shall be taken to minimize dust and odors.

(o) Working face: The working face shall be confined to the smallest practical area using signs and physical barriers, if necessary. All solid wastes shall be deposited in a manner to limit windblown litter.

(p) Compaction: All solid waste shall be effectively compacted in order to reduce long-term settling and conserve landfill space.

(q) Routine cover:

(i) Effective October 9, 1995, Type I municipal solid waste landfills shall cover all solid waste, excluding those wastes listed in paragraph (s)(ii) of this section, which have been received during the day with an approved cover material at the end of each day that the facility is open for the receipt of wastes.

(ii) Effective October 9, 1997, Type II municipal solid waste landfills shall install an approved cover material over all solid waste, excluding those wastes listed in paragraph (q)(iii) of this section, which have been received as per the following schedule:

(A) At the end of each day that the facility is open to the public if the facility accepts for disposal more than ten (10) tons of municipal solid wastes daily;

(B) A minimum of once every seven (7) days if the facility accepts for disposal an average of less than ten (10) but more than three (3) tons of municipal solid wastes daily;

(C) A minimum of once every sixteen (16)

days if the facility accepts for disposal an average of less than three (3) tons of municipal solid wastes daily;

(D) Prior to October 9, 1997, Type II municipal solid waste landfills shall be subject to the minimum periodic soil cover requirements specified in Section 7 of Chapter 15 of these rules.

(iii) Solid wastes which are not subject to the routine cover requirements of this paragraph are:

(A) Brush, tree trimmings, and clean wood intended to be burned periodically under authority of Section 5(k) of this chapter;

(B) Scrap tires managed in compliance with the requirements of Chapter 8 of these rules;

(C) Inert construction/demolition debris, which is to be covered as described in the facility permit application and subject to any permit limitation;

(D) White goods, cars, or other metallic wastes being stored for shipment to a metal recycler, if stored as described in the facility permit application;

(E) Petroleum contaminated soils being managed in compliance with the requirements of Chapter 8 of these rules;

(F) Friable asbestos wastes being managed in compliance with the requirements of Chapter 8 of these rules; and

(G) Any other solid wastes which the administrator determines to be unlikely to cause, or to contribute to, disease vectors, fires, odors, blowing litter, and scavenging.

(iv) An approved cover material shall be:

(A) Any cover including no less than six (6) inches of compacted soil or any alternative material approved by the administrator to adequately control

infiltration, disease vectors, fires, odors, blowing litter, and scavenging;

(B) For balefills, no less than six (6) inches of compacted soil, or any alternative material approved by the administrator to adequately control disease vectors, fires, odors, blowing litter, and scavenging, applied to the top and sides of an active balefill disposal area; balefill operations shall not be required to cover the vertical working face of the balefill facility, unless required by the administrator to control litter, fire, odor, disease vectors, or scavenging.

(v) At any facility where an alternate daily routine cover material has been approved for use by the administrator, the owner or operator shall adequately compact all wastes and apply no less than six (6) inches of compacted soil at least once every thirty (30) calendar days, as a fire control measure.

(r) Intermediate cover: For any area where wastes will not be disposed for a period of 180 days, that area shall be covered with the required six (6) inches of cover material and an additional twelve (12) inches of intermediate cover.

(s) Phased reclamation: All completed refuse fill areas shall be promptly reclaimed with final cover, topsoil and revegetation in order to stabilize the landfill surface and reduce the potential for leachate generation.

(t) Methane migration:

(i) Facilities shall be operated such that the concentration of methane gas in facility structures and at the facility boundary does not exceed twenty-five percent (25%) of the lower explosive limit (LEL) for methane. If methane levels exceeding the limits specified in this paragraph are detected, the operator must:

(A) Immediately notify the administrator and take steps to protect human health

(B) Within seven (7) days of detection, place a copy of the methane test data in the operating record, and a written description of the steps taken to protect human health; and

(C) Within sixty (60) days of detection, implement a remediation plan which has been approved by the administrator, and place a copy of that plan in the operating record.

(ii) The administrator may establish alternative schedules for demonstrating compliance with the requirements of paragraphs (t)(i)(B) and (t)(i)(C) of this section.

(u) Surface water contact: Standing or running water shall not be allowed to come into contact with solid waste. Adequate measures shall be taken to prevent and/or alleviate ponding of water over filled areas. Surfaces shall be graded to promote lateral surface water run-off.

(v) Surface water discharges: Facilities shall be operated such that leachate, contaminated groundwater, and/or surface water run-off from the active portion of the facility is not allowed to enter any waters of the United States, either on-site or off-site, unless authorized by a National Pollutant Discharge Elimination System (NPDES) permit issued pursuant to the Clean Water Act. Facilities shall not be operated to cause a violation of any requirement of the Clean Water Act, including Sections 402 pertaining to NPDES permits, and Sections 208 or 319 pertaining to area-wide or state-wide nonpoint source discharge water quality management plans.

(w) Groundwater contact: Wastes shall not be allowed to be placed in contact with groundwater.

(x) Groundwater discharges: Solid waste disposal facilities shall not be allowed to alter groundwater quality, as determined by groundwater monitoring.

(y) Recordkeeping:

(i) The following records shall be maintained at the facility or an approved alternative location and available for inspection and copying as specified by Chapter 1, Section 1(g):

(A) Log of litter collection activities specifying the dates and areas of litter collection;

(B) Log of refuse compaction and covering procedures specifying the dates on which compaction and covering operations were conducted, areas compacted and covered;

(C) Types and disposition of special wastes, specifying the volume, date of disposition, and source of waste;

(D) Records of waste sold or otherwise salvaged;

(E) Record of any problems causing operations to cease, including but not limited to fire or equipment failure;

(F) Copy of the department permit letter;

(ii) The owner or operator shall maintain through the end of the post-closure period, in addition to the records required in paragraph (y)(i) of this section, an operating record which shall contain the following information:

(A) Any permit application prepared under Section 2(b), 2(c), or 2(d) of this chapter;

(B) If not contained in the permit application, any location restriction demonstration which is required under Section 3(b) of this chapter;

(C) Log of random inspections or other screening activities for regulated hazardous wastes and PCB wastes specifying the date, time, and name(s) of the inspection personnel, as required under Section 5(f)(ii) of this chapter, and any notifications to the administrator under Section 5(f)(iii) of this chapter;

(D) Records of training of landfill operators to detect hazardous wastes and PCB wastes required under Section 5(a)(ii) of this chapter;

(E) Methane monitoring results prepared under Section 6 of this chapter, and any methane notification or remediation plan prepared under Section 5(t) of this chapter;

(F) Groundwater monitoring results, and any other groundwater demonstration, certification, or finding not already contained in the permit application, which is required under this chapter;

(G) As-built specifications for length, width and depth of trenches, and location;

(H) Dates when trenches completed, and contents of the trench;

(I) Closure and post-closure plans, if not already contained in the permit application, and any monitoring, testing, or analytical data required in the plans;

(J) Any cost estimates and financial assurance documentation required under Chapter 7 of these rules and regulations;

(K) Any information demonstrating the classification of the landfill as a Type I or Type II landfill as defined in Chapter 1, Section 1(e) of these rules and regulations; and

(L) If not contained in the permit application, any engineered containment demonstration which is required under Section 4(j) of this chapter.

(M) Dates when reclamation activities take place.

(z) Special waste management standards: Any facility used for the management of a special waste regulated under Chapter 8, Special Waste Management

Standards, shall also comply with the applicable operating standards established under Chapter 8.

(aa) Transfer, treatment and storage facility standards: Any facility used for the transfer, treatment or storage of solid wastes shall also comply with the applicable operating standards established under Chapter 6.

(bb) Annual reports: Applicants should refer to W.S. 35-11-523 for the current reporting standards applicable to municipal solid waste landfills with lifetime permits.

(i) Facilities with lifetime permits: Effective January 1, 2012, every operator shall file an annual report with the administrator on or within thirty (30) days prior to the anniversary date of each lifetime permit. The report shall include:

(A) The facility name, the name and address of the operator and the permit number;

(B) A report in such detail as the administrator shall require supplemented with maps, cross sections, aerial photographs, photographs or other material indicating:

(I) The extent to which the landfill operations have been carried out;

(II) The progress of all landfill work;

(III) The extent to which regulatory requirements, expectations and predictions made in the original permit or any previous annual reports have been fulfilled, and any deviation there from, including but not limited to the capacity of landfill used, the results of any environmental monitoring, any remediation required or completed and the remaining usable municipal solid waste landfill capacity.

(C) A revised schedule or timetable of

landfill operations and an estimate of the available capacity to be affected during the next one (1) year period.

(ii) Upon receipt of the annual report the administrator shall make such further inquiry as deemed necessary. If the administrator objects to any part of the report or requires further information he shall notify the operator as soon as possible and shall allow a reasonable opportunity to provide the required information, or take such action as necessary to resolve the objection.

(iii) Within forty-five (45) days after the receipt of the annual report the administrator shall conduct an inspection of the landfill. A report of this inspection shall be made a part of the operator's annual report and a copy shall be delivered to the operator.

(iv) Within sixty (60) days after receipt of the annual report, inspection report and other required materials, if the administrator finds the annual report in order and consistent with the landfill operation plan and solid waste management plan as set forth in the permit, or as amended to adjust to conditions encountered during landfill operations as provided by law, the director shall determine if any adjustment is necessary to the size of the bond required pursuant to W.S. 35 11 504.

(v) Landfill gas reporting: The following information related to landfill gas emissions shall be reported annually in a format specified by the administrator and may be part of the annual report set forth in this subsection:

(A) The maximum design capacity of the landfill in megagrams (Mg) and cubic meters (m<sup>3</sup>) of waste, including any modifications or expansions in the last year which have increased or decreased the maximum design capacity in megagrams (Mg) and cubic meters (m<sup>3</sup>) of waste. If the design capacity is converted from mass to volume or volume to mass, the calculations must be provided. Information regarding the site-specific waste density and how it was estimated must also be provided.

Section 6. Monitoring Standards. All facilities required to institute monitoring shall meet the standards described in this section.

(a) Collection and management of samples: Groundwater, soil core, vadose zone, and decomposition gas samples shall be collected and managed in accordance with department guidance or equivalent methods approved by the administrator.

(b) Groundwater monitoring:

(i) Except as provided in paragraph (b) (i) (A) of this section, Type I landfills shall comply with the following groundwater monitoring requirements:

(A) Applicability:

(I) The administrator may suspend the groundwater monitoring requirements of paragraph (B) of this section if the owner or operator demonstrates that there is no potential for migration of hazardous constituents from the facility to the uppermost aquifer. This demonstration must be made by a qualified scientist or engineer, and must consider:

(1.) Site-specific field measurements, and information about the specific wastes to be disposed at the facility; and

(2.) Contaminant fate and transport predictions, including use of the hydrologic evaluation of landfill performance model, which maximize contaminant migration and consider impacts on human health and the environment.

(II) Owners and operators of Type I landfills must comply with the requirements of paragraph (b) of this section as follows, unless an alternate schedule is approved by the administrator under paragraph (b) (i) (A) (III) of this section:

(1.) Facilities less than one

(1) mile from a drinking water intake or well, by October 9, 1994;

(2.) Facilities less than two (2) miles but greater than one (1) mile from a drinking water intake or well, by October 9, 1995;

(3.) Facilities greater than two (2) miles from a drinking water intake or well, by October 9, 1996; and

(4.) New facilities must be in compliance before wastes are deposited in the facility.

(III) The administrator may establish schedules of compliance for individual existing solid waste disposal facilities with the requirement of paragraph (b)(i) of this section, provided that half of all existing facilities are in compliance by October 9, 1994 and all are in compliance by October 9, 1996. The administrator shall consider potential risks to human health and the environment in establishing an alternate schedule of compliance for an individual facility.

(IV) Once established at a facility, the groundwater monitoring program shall be conducted throughout the active life and post-closure care period for the facility, unless modified by the administrator under paragraphs (b)(i)(D) or (b)(i)(E) of this section.

(V) The administrator may establish an alternate schedule for compliance with any deadline specified in paragraphs (b)(i)(B), (b)(i)(C), (b)(i)(D), or (b)(i)(E) of this section, or Section 8(c) of this chapter.

(B) Groundwater monitoring systems:

(I) A groundwater system must be installed which consists of a sufficient number of wells to monitor water from the uppermost aquifer which may be affected by leakage from the facility. The system must be capable of monitoring background and downgradient water quality. Well locations must be approved by the

administrator, and downgradient wells shall be placed in locations within 150 meters of the waste management unit boundary on land owned, leased, or otherwise controlled by the operator.

(II) The administrator may approve a groundwater monitoring system designed to monitor groundwater from the facility, in lieu of individual waste disposal trenches, if the system is determined to be capable of adequately detecting groundwater pollution. In approving a facility-wide groundwater monitor system, the administrator shall consider:

(1.) Number, spacing, and orientation of the individual waste units at the facility;

(2.) Hydrologic setting;

(3.) Site history and design;

and

(4.) Type of waste accepted at the individual waste units at the facility.

(III) The design of the groundwater monitoring system must be based on site-specific information on aquifer thickness, aquifer properties, groundwater flow direction and rate (including seasonal variations), and on geologic information on the soils, any aquitards, aquicludes, or confining formations, at the site. The design of the system must be approved by the administrator. The owner or operator must include the system design information in the facility operating record, within fourteen (14) days of the date of approval of the system design by the administrator.

(C) Groundwater sampling and analysis requirements:

(I) Each facility must have an approved groundwater sampling and analytical plan and maintain that plan as a part of the facility permit application. The plan must address:

- (1.) Sample collection;
  - (2.) Sample preservation and shipment;
  - (3.) Analytical procedures;
  - (4.) Chain of custody control;
- and
- (5.) Quality assurance and quality control.

(II) The groundwater sampling and analysis methods must be appropriate and accurate. Sample handling procedures shall be as required by the administrator. Groundwater samples shall not be field filtered prior to laboratory analysis.

(III) Groundwater elevations must be measured in each well prior to purging for sample collection, each time groundwater is sampled. The owner or operator must determine groundwater flow direction at each sampling event. The owner or operator must measure or calculate groundwater flow rate(s) as appropriate to establish an adequate groundwater monitoring system, or when requested to do so by the administrator.

(IV) The owner or operator must establish background water quality in a hydraulically upgradient or other background well approved by the administrator.

(V) Prior to conducting the statistical analysis of groundwater data, the owner or operator shall collect a sufficient number of samples to meet the requirements of the statistical analysis procedure selected under paragraph (b) (i) (C) (VI) of this section.

(VI) The owner or operator must include in the permit application a description of the statistical method to be used to evaluate groundwater quality data. The statistical test shall be conducted

separately for each hazardous constituent in each well. The owner or operator may select any of the following statistical analysis procedures:

(1.) A parametric analysis of variance followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent;

(2.) An analysis of variance based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent;

(3.) A tolerance or prediction interval procedure in which an interval for each distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit;

(4.) A control chart approach that gives control limits for each constituent; or

(5.) Another statistical method approved by the administrator.

(VII) Any statistical method chosen under paragraph (b) (i) (C) (VI) of this section shall comply with the following performance standards:

(1.) The method shall be appropriate for the distribution of chemical parameters or constituents. If the distribution is not normal, then the data should be transformed or a distribution-free theory test should be used. If the distributions for different constituents differ, more than one statistical method may be needed;

(2.) If an individual well

comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment-wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts;

(3.) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values must be approved by the administrator;

(4.) If a tolerance interval or a predictional interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be approved by the administrator;

(5.) Any data reported as below detection limits shall be entered into the statistical analysis as a value equal to one-half the practical quantitation limit (PQL) for the constituent. The PQL shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility; and

(6.) If approved by the administrator, the statistical method may include procedures to adjust data to account for seasonal and spatial variability, as well as temporal correlation.

(VIII) The owner or operator must determine whether or not there is a statistically significant increase over background values for each parameter or constituent required in the particular groundwater monitoring program that applies to the facility under paragraph (b) (i) (D) or (b) (i) (E) of this

section, as follows:

(1.) The owner or operator must compare the groundwater quality of each parameter or constituent at each monitoring well using the approved statistical method; and

(2.) Within thirty (30) days after completing sampling and analysis, the owner or operator must determine whether there has been a statistically significant increase over background at each monitoring well.

(D) Detection monitoring:

(I) Each facility shall institute a detection monitoring program by sampling each well at least semiannually, and testing each sample for the constituents specified in Appendix A, unless the administrator:

(1.) Deletes a constituent because the owner or operator shows that it is not likely to be present in the waste disposed at the facility;

(2.) Establishes an alternate list of inorganic constituents which provide a reliable indication of inorganic releases from the facility, considering the following factors:

a. The types, quantities, and concentrations of constituents in wastes managed at the facility;

b. The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the facility;

c. The detectability of indicator parameters, waste constituents, and reaction products in the groundwater; and

d. The concentration or values and coefficients of variation of monitoring

parameters or constituents in the groundwater background;  
or

(3.) Determines that a different, but no less frequent than annual, monitoring schedule is appropriate, considering the following factors:

a. Lithology of the aquifer and unsaturated zone;

b. Hydraulic conductivity of the aquifer and unsaturated zone;

c. Groundwater flow rates;

d. Minimum distance between the edge of the waste boundary at the facility and the downgradient monitor well(s); and

e. The classification of the aquifer under Chapter 8 of the Water Quality Rules and Regulations.

(II) A minimum of four (4) individual samples is required to be collected and analyzed from each well (background and downgradient) during the first year of sampling. At least one (1) sample must be collected and analyzed from each well during subsequent sampling events, which must be conducted on the sampling frequency determined under paragraph (b) (i) (D) (I) of this section.

(III) If a statistically significant difference in water quality between background and any downgradient well is detected, the operator must:

(1.) Notify the administrator and place a note in the facility operating record within fourteen (14) days and start assessment monitoring within ninety (90) days as provided in paragraph (b) (i) (E) of this section; or

(2.) Demonstrate to the administrator that the statistically significant water

quality difference is not due to the solid waste disposal facility, but that the difference is due to another source of pollution, error in sampling, analysis or statistical evaluation, or natural variation in groundwater quality. The owner or operator shall prepare a report documenting this demonstration, and following approval by the administrator, place the report in the operating record for the facility. If the report is approved, the owner or operator shall continue detection monitoring as required in paragraph (b) (i) (D) of this section. If, after ninety (90) days, a successful demonstration is not made, the owner or operator must initiate an assessment monitoring program as required in paragraph (b) (i) (E) of this section.

(E) Assessment monitoring:

(I) Assessment monitoring is required whenever a statistically significant increase over background water quality has been detected under paragraph (b) (i) (D) of this section.

(II) Within ninety (90) days of triggering an assessment monitoring requirement, and annually thereafter, the owner or operator must sample and analyze all downgradient monitor wells for all Appendix B constituents. A minimum of one (1) sample from each downgradient well must be collected during each annual sampling event. If any Appendix B constituent is detected in any downgradient well, the owner or operator must promptly collect a minimum of four (4) additional independent samples from each background and downgradient well. These samples must be analyzed for each Appendix B constituent which was detected in the initial assessment monitoring sampling event.

(III) The administrator may specify an appropriate subset of wells to be sampled and analyzed during assessment monitoring, and may delete Appendix B constituents from the monitoring requirements if it can be shown that the deleted constituents are not reasonably expected to be in or derived from the waste contained in the facility. The administrator may also specify an appropriate alternate frequency for the collection of the

additional independent samples under paragraph (b) (i) (E) (II) of this section, considering the following factors:

(1.) Lithology of the aquifer and unsaturated zone;

(2.) Hydraulic conductivity of the aquifer and unsaturated zone;

(3.) Groundwater flow rates;

(4.) Minimum distance between the facility and the downgradient monitor well(s);

(5.) Classification of the aquifer under Chapter 8 of the Water Quality Rules and Regulations; and

(6.) Nature (fate and transport) of any constituents detected under assessment monitoring.

(IV) After obtaining the results from any sampling event under paragraph (b) (i) (E) (II) of this section, the owner or operator must:

(1.) Within fourteen (14) days, notify the administrator and place a notice in the operating record identifying the Appendix B constituents that have been detected;

(2.) Within ninety (90) days, and on at least a semiannual basis thereafter, resample all wells, conduct analyses for all constituents required under detection monitoring [paragraph (b) (i) (D) of this section], and for all Appendix B constituents which have been detected under assessment monitoring [paragraph (b) (i) (E) (II) of this section], and record their concentrations in the operating record. At least one (1) sample must be collected from each well during each sampling event under this paragraph. The administrator may approve an alternate sampling frequency, no less than annual, considering the factors in paragraph (b) (i) (E) (III) of this section;

(3.) Establish background concentrations for any constituents detected pursuant to paragraph (b) (i) (E) (II) or (b) (i) (E) (IV) (2.) of this section; and

(4.) Request the administrator to establish groundwater protection standards for all constituents detected pursuant to paragraph (b) (i) (E) (II) or (b) (i) (E) (IV) (2.) of this section. The groundwater protection standards shall be established in accordance with paragraphs (b) (i) (E) (VIII) or (b) (i) (E) (IX) of this section.

(V) If the concentrations of all Appendix B constituents are at or below background values using the approved statistical procedures, for two (2) consecutive sampling events, the owner or operator must notify the administrator and may return to detection monitoring under paragraph (b) (i) (D) of this section.

(VI) If the concentrations of any Appendix B constituents are above background values, but all concentrations are below the groundwater protection standard established under paragraphs (b) (i) (E) (VIII) or (b) (i) (E) (IX) of this section, using the approved statistical procedures, the owner or operator must continue assessment monitoring under paragraph (b) (i) (E) of this section.

(VII) If one (1) or more Appendix B constituents are detected at statistically significant levels above the groundwater protection standard established under paragraphs (b) (i) (E) (VIII) or (b) (i) (E) (IX) of this section in any sampling event, the owner or operator must, within fourteen (14) days of this finding place a notice in the operating record identifying the Appendix B constituents, notify the administrator and all appropriate local government officials, and:

(1.) Characterize the nature and extent of the release by installing additional monitor wells as necessary;

(2.) Install at least one (1) additional monitor well at the facility boundary downgradient of the release and sample the well in accord with paragraph (b)(i)(E)(IV)(2.) of this section;

(3.) Notify all persons who own or reside on the land that directly overlies any part of the plume of contamination, if that plume has migrated off-site; and

(4.) Initiate an assessment of corrective measures as required by Section 8(a) of this chapter within ninety (90) days; or

(5.) Demonstrate to the administrator that the contamination was caused by another source, resulted from an error in sampling, analysis or statistical evaluation, or from natural variation in groundwater quality. If a successful demonstration is made, the owner or operator must continue monitoring under the assessment monitoring program as required by paragraph (b)(i)(E) of this section, or may return to detection monitoring if all Appendix B constituents are at or below background as specified in paragraph (b)(i)(E)(V) of this section. Until a successful demonstration is made, the owner or operator must comply with paragraph (b)(i)(E)(VII) of this section including initiating an assessment of corrective measures under Section 8(b) of this chapter.

(VIII) The owner or operator must request that the administrator establish a groundwater protection standard for each Appendix B constituent detected in the groundwater. The administrator shall establish groundwater protection standards, which shall be:

(1.) For constituents where a maximum contaminant level (MCL) has been promulgated, the MCL for that constituent;

(2.) For constituents for which MCL's have not been promulgated, the background concentration established from wells in accordance with

paragraph (b) (i) (B) (I); or

(3.) For constituents for which the background level is higher than the MCL or health-based levels identified under paragraph (b) (i) (E) (IX) of this section, the background concentration.

(IX) The administrator may establish an alternative groundwater protection standard for constituents for which MCL's have not been established. These groundwater protection standards shall be health-based levels meeting the requirements of Chapter 8 of the Water Quality Rules and Regulations.

(ii) Type II landfills, and any Type I landfill excluded from groundwater monitoring requirements under paragraph (b) (i) (A) (VI) of this section, shall, if required by the administrator, comply with the following groundwater monitoring and corrective action requirements:

(A) Well placement: All facilities required to install monitoring wells shall place them in accordance with the department's requirements. Following initial placement of the wells, the operator shall confirm that the wells are capable of measuring groundwater quality that is representative of conditions hydraulically upgradient and downgradient of the solid waste disposal facility.

(B) Well design, construction/installation and abandonment: All wells shall be designed, constructed and installed in accordance with the Water Quality Division Chapter 11 requirements. All abandoned monitoring wells shall be plugged and sealed in accordance with the Water Quality Division Chapter 11 requirements.

(C) Permits required: Prior to well installation, the monitoring well design, construction and location specifications shall be approved by the administrator. A construction permit under Chapter 3 of the Water Quality Division rules and regulations is not required. All monitoring wells shall be permitted by the Wyoming State Engineer's Office.

(D) Analyses:

(I) Baseline monitoring: The initial samples acquired in a monitoring program shall be analyzed for pH, Total Dissolved Solids (T.S.), Chemical Oxygen Demand (COD), Total Organic Carbon (TO), Ammonia as N, Nitrate as N, Bicarbonate, Carbonate, Chloride, Fluoride, Calcium, Magnesium, Potassium, Sodium, Sulfate, Copper, Iron, Manganese, Nickel, Zinc, Arsenic, Barium, Cadmium, Chromium, Cyanide, Lead, Mercury, Selenium, and Silver. Water temperature, specific conductance, pH, and static water level measurements shall also be taken in the field during each monitoring event. The length of this initial monitoring period shall not exceed one (1) year; samples acquired during this period shall be taken at least quarterly.

(II) Detection monitoring: Following the baseline monitoring period, the administrator may specify a reduced set of sampling parameters to be analyzed at least semi-annually. The reduced set of parameters shall include, at a minimum: Total Dissolved Solids (T.S.), Chlorides, Ammonia (as N), Iron, Hardness, and Total Organic Carbon (TO). Water temperature, specific conductance, pH, and static water level measurements shall also be taken in the field during each monitoring event.

(III) Assessment monitoring: Should groundwater monitoring data indicate that the facility is impacting groundwater quality, additional wells, a revised set of sampling parameters and revised sampling schedule may be required by the administrator to define the nature and extent of contamination.

(IV) The administrator may specify additional water quality parameters for analyses, including organic chemical constituents, based on its review of the wastes likely to be disposed at any specific solid waste disposal facility.

(E) Corrective actions: Whenever there is a release of contamination which adversely impacts groundwater quality, the operator shall institute

corrective actions approved by the administrator, as specified in Section 8 of this chapter.

(iii) Groundwater monitoring data shall be provided to the administrator as follows:

(A) Operators of all facilities shall submit paper copies of all groundwater monitoring data;

(B) Operators of Type I facilities shall also submit groundwater monitoring data on magnetic media or electronically transmitted files in a format specified by the administrator;

(C) Operators of Type II facilities with three (3) or more groundwater monitoring wells may also be required to submit groundwater monitoring data on magnetic media or electronically transmitted files in a format specified by the administrator.

(c) Methane:

(i) Methane probe system design: Methane probe design, construction, installation and location shall be adequate to monitor compliance with the standards specified in Chapter 2, Sections 4 and 5.

(ii) Abandonment of methane probe boreholes: Abandoned methane probe boreholes shall be plugged and sealed in accordance with department recommendations.

(iii) Analyses: Methane analyses shall be conducted at least quarterly. Analyses shall be conducted using a gas-scope and/or organic vapor analyzer, using the manufacturer's recommended procedures.

(d) Air monitoring: Air monitoring, if required, shall be conducted in accord with Air Quality Division regulations.

(e) Soil core monitoring: Soil core monitoring, if required, shall be conducted in accord with a plan approved by the administrator.

(f) Vadose zone monitoring: Vadose zone monitoring, if required, shall be conducted in accord with a plan approved by the administrator.

(g) Reporting of environmental monitoring data: On an annual basis, operators of all facilities shall provide the administrator with copies of all required environmental monitoring data. An analysis of environmental monitoring data shall also be submitted as follows:

(i) Operators of Type I facilities shall provide copies of all required statistical analyses;

(ii) Operators of all facilities may be required to submit supporting charts and/or maps which represent the data.

Section 7. Closure and Post-Closure Standards. All facilities shall be closed in accordance with the standards described in this section, as well as the requirements of Chapter 1, Sections 2(g) and 2(h).

(a) Commencement of closure: Closure activities as specified in this section and in the approved facility closure plan shall commence no later than thirty (30) days following the time the facility ceases to receive solid wastes and shall be completed within one hundred eighty (180) days following commencement of closure. The administrator may approve:

(i) Delayed closure of a facility if the facility has additional remaining disposal capacity, and the owner demonstrates that there will be no threats to human health or the environment from the unclosed facility, and

(ii) Extensions of the closure period if needed to adequately complete closure activities and the owner demonstrates that there will be no threats to human health or the environment from the unclosed facility.

(b) Notification of closure: Prior to the

commencement of closure activities, a notice of closure shall be published in an area newspaper and posted at all facility access points.

(c) Prevention of erosion or ponding problems: Facilities shall be engineered to inhibit future problems with erosion or ponding of surface water over filled areas. This may be done via site grading and revegetation, placement of rip rap or other appropriate means.

(d) Final cover: At closure, an infiltration barrier layer of subsoil, or a combination of materials as specified in the permit, a minimum of two (2) feet thick shall be constructed over the refuse or any intermediate cover already in place. This infiltration barrier layer shall be covered with a minimum of six (6) inches of topsoil and graded to prevent erosion or surface water ponding. The infiltration barrier layer shall meet the following minimum specifications:

(i) The infiltration barrier layer in the final cover of a Type I or Type II municipal solid waste landfill that ceased receipt of wastes before October 9, 1991 shall minimize the amount of moisture which infiltrates the final cover system. The administrator may specify more stringent specifications if the administrator determines that the site poses a significant threat to public health or the environment.

(ii) The infiltration barrier layer in the final cover for a Type I or Type II municipal solid waste landfill that receives wastes on or after October 9, 1991 shall have a minimum permeability less than or equal to the permeability of the bottom liner or natural subsoils, or a permeability of  $1 \times 10^{-5}$  cm/sec (10 ft/yr), whichever is less, or such lower value as specified in the facility permit. The administrator may approve alternative infiltration barrier layer designs which achieve an equivalent reduction in the annual flux of infiltration through the final cover system. The administrator may require monitoring of alternative infiltration barrier layer designs to demonstrate the performance of the designs.

(e) Revegetation: At closure, any portion of the facility that has been disturbed by solid waste disposal activities shall be revegetated to minimize wind and water erosion of the final cover, consistent with the post-closure land use. Vegetation shall be a diverse mix selected to be compatible with the climatic conditions, require little maintenance, and have root depths that will not exceed the depth of the final cover.

(f) Surveyed corners: At closure, all facility boundary corners shall be surveyed and marked with permanent survey caps.

(g) Notice on deed: At closure, an instrument which clearly gives notice of the restrictions that apply to future activities on the disposal facility property shall be filed for recording by the registrar of deeds (county clerk) in the county where the facility is located. Wording of such an instrument shall indicate that the property has been used as a solid waste disposal facility. This shall be recorded prior to any property transaction resulting in another use for the property. The owner/operator, or its successors, shall assure that post-closure use of the property will be restricted to prevent any disturbance to the facility's containment system including caps and liners, or the functioning of the facility's monitoring system.

(h) Access control: Facility fences, gates and any other access restrictions shall be maintained until the site has been satisfactorily closed and revegetated, if post-closure land use requires establishment of vegetative cover.

(i) Waste containment systems: Waste containment systems, including but not limited to liners, leachate detection, collection and management systems and final cover systems shall be maintained throughout the closure and post-closure periods.

(j) Surface water structures: Surface water structures shall be maintained and operated throughout the closure and post-closure periods.

(k) Environmental monitoring systems: Environmental monitoring systems shall be maintained and operated throughout the closure and post-closure periods.

(l) Corrective action systems: The operator shall respond to any pollution problem reasonably related to the facility's activities. Corrective action systems shall be maintained and operated throughout the closure and post-closure periods.

(m) Special waste management standards: Any facility used for the management of a special waste regulated under Chapter 8, Special Waste Management Standards, shall also comply with the applicable closure standards established under Chapter 8.

(n) Transfer, treatment and storage facility standards: Any facility used for the transfer, treatment or storage of solid wastes shall also comply with the applicable closure standards established under Chapter 6.

(o) Certification of closure: Completion of closure activities shall be certified by a Wyoming registered professional engineer, as required by Section 2(h)(ii) of Chapter 1.

(p) Post-closure land use: Each facility shall be returned to the post-closure land use specified in the permit, unless an alternative use is approved by the administrator.

(q) Post-closure period:

(i) The post-closure period for Type I municipal solid waste landfills which continued to receive wastes on or after October 9, 1993 and Type II municipal solid waste landfills which continue to receive wastes on or after October 9, 1997 shall extend for a period of not less than thirty (30) years after certification of closure activities is approved by the administrator. The minimum post-closure period may be terminated by the administrator at an earlier date if the administrator determines that the facility has been adequately stabilized and that the

environmental monitoring or control systems have demonstrated that the facility closure is protective of public health and the environment consistent with the purposes of the act.

(ii) The post-closure period for Type I municipal solid waste landfills which received waste after October 9, 1991 but ceased receipt of wastes before October 9, 1993 and installed an approved final cover system by October 9, 1994 shall extend for a period of not less than five (5) years after certification of closure activities is approved by the administrator.

(iii) The post-closure period for Type II municipal solid waste landfills which received waste after October 9, 1991 but ceased receipt of wastes before October 9, 1997 and installed an approved final cover system by October 9, 1998 shall extend for a period of not less than five (5) years after certification of closure activities is approved by the administrator.

(iv) The post-closure period for Type I municipal solid waste landfills which received waste after October 9, 1991 and ceased receipt of wastes before October 9, 1993 but did not install an approved final cover system by October 9, 1994 shall extend for a period of not less than thirty (30) years after certification of closure activities is approved by the administrator. The minimum post-closure period may be terminated by the administrator at an earlier date if the administrator determines that the facility has been adequately stabilized and that the environmental monitoring or control systems have demonstrated that the facility closure is protective of public health and the environment consistent with the purposes of the act.

(v) The post-closure period for Type II municipal solid waste landfills which received waste after October 9, 1991 and ceased receipt of wastes before October 9, 1997 but did not install an approved final cover system by October 9, 1998 shall extend for a period of not less than thirty (30) years after certification of closure activities is approved by the administrator. The minimum post-closure period may be terminated by the

administrator at an earlier date if the administrator determines that the facility has been adequately stabilized and that the environmental monitoring or control systems have demonstrated that the facility closure is protective of public health and the environment consistent with the purposes of the act.

(vi) The post-closure period for Type I and Type II municipal solid waste landfills which ceased receipt of wastes before October 9, 1991 shall extend for a period of not less than five (5) years after certification of closure activities is approved by the administrator.

(vii) Following the initial minimum post-closure period specified in this subsection, the post-closure period shall be automatically extended until such time when the administrator determines, upon petition by the operator accompanied by submission of relevant information, that the facility has been adequately stabilized in a manner protective of human health and the environment.

(viii) Petitions to terminate the post-closure period shall include certification from a Wyoming registered professional engineer that post-closure care has been completed in compliance with the post-closure plan and in a manner protective of human health and the environment.

#### Section 8. Standards For Corrective Action:

(a) Assessment of corrective measures: All facilities required to start a corrective measures assessment under paragraph (b) (i) (E) (VII) or (b) (ii) (E) of Section 6 of this chapter shall initiate assessment of corrective measures within ninety (90) days of a groundwater quality exceedance as described at Section 6(b) (i) (E) (VII) of this chapter and complete the assessment in a reasonable time, determined by the administrator. The owner or operator shall:

(i) Continue to conduct an assessment monitoring program under paragraph (b) (i) (E) or

(b) (ii) (D) (II) of Section 6 of this chapter, as applicable;

(ii) Analyze the effectiveness of potential corrective measures to meet any alternate remedies which are being considered under paragraph (b) of this section, considering:

(A) The performance, reliability, ease of implementation, and potential impacts of appropriate alternate remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;

(B) The time required to begin and complete the remedy;

(C) The costs of remedy implementation;  
and

(D) The institutional requirements such as state or local permits or other environmental or public health requirements that may substantially affect implementation of the remedy.

(iii) Provide an opportunity for public review of the corrective measures assessment, prior to selection of the remedy.

(b) Selection of remedy:

(i) The landfill operator must demonstrate to the administrator how the selected corrective action remedy meets the remedy standards established in this subsection. The administrator must approve the selected remedy and the remedial activities schedule before it is implemented.

(ii) The selected remedy must:

(A) Be protective of human health and the environment;

(B) Attain the groundwater protection

standard;

(C) Control the source of releases of pollution so as to reduce or eliminate, to the maximum extent practicable, further releases of Appendix B constituents into the environment that may pose a threat to human health or the environment; and

(D) Comply with standards for management of wastes specified in this chapter.

(iii) The selection of the corrective action remedy must consider the following factors:

(A) Short- and long-term effectiveness of the remedy, and the degree of certainty that the remedy will be effective, considering:

(I) Magnitude of reduction of existing risk to public health and the environment;

(II) Magnitude of risk of further releases of pollution;

(III) Type and degree of long-term management required, including monitoring, operation, and maintenance;

(IV) Short-term risks of exposure to the community, workers, or the environment during any excavation, transportation and redispisal of wastes;

(V) Time until full protection is achieved;

(VI) Potential for exposure to humans and the environment from remaining wastes;

(VII) Long-term reliability of the engineering and any institutional controls; and

(VIII) Potential need for replacement of the remedy.

(B) The effectiveness of the remedy in

controlling the source to reduce further releases based on consideration of the following factors:

(I) The extent to which containment will reduce further releases; and

(II) The extent to which treatment technologies will be used.

(C) The ease or difficulty of implementing the potential remedy, considering:

(I) Difficulty in constructing the technology;

(II) Expected reliability of the technology;

(III) Availability of necessary equipment and specialists; and

(IV) Available capacity of needed treatment, storage, and disposal facilities.

(D) Practicable capability of the owner or operator, including a consideration of the technical and economic capability.

(E) The degree to which community concerns are addressed by a potential remedy.

(iv) The administrator shall specify a schedule for initiating and completing remedial activities, considering the following factors:

(A) Extent and nature of contamination;

(B) Practical capabilities of remedial technologies in achieving compliance with groundwater protection standards;

(C) Availability of treatment or disposal capacity for wastes managed during implementation of the remedy;

(D) Desirability of utilizing technologies that are not currently available but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives;

(E) Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;

(F) Classification of the aquifer under Chapter 8 of the Water Quality Rules and Regulations, plus a consideration of the following factors:

(I) Current and future uses;

(II) Proximity and withdrawal rate of users;

(III) Groundwater quantity;

(IV) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste;

(V) The hydrologic characteristics of the facility and surrounding lands;

(VI) Groundwater removal and treatment costs; and

(VII) The cost and availability of alternative water supplies;

(G) Practicable capability of the owner or operator; and

(H) Any other factor considered relevant by the administrator.

(v) The administrator may determine that remediation of a release of an Appendix B constituent from a facility is not necessary if the owner or operator

demonstrates to the satisfaction of the administrator that:

(A) The groundwater is additionally contaminated by substances that have originated from a source other than the facility, and those substances are present in concentrations such that the cleanup of the release from the facility would provide no significant reduction in risk to actual or potential receptors; or

(B) The constituent(s) is present in groundwater that:

(I) Is not currently or reasonably expected to be a source of drinking water; and

(II) Is not hydraulically connected with waters to which the hazardous constituents are migrating or are likely to migrate in a concentration(s) that would exceed the groundwater protection standards established under Section 6 of this chapter; or

(III) Remediation of the release(s) is technically impracticable; or

(IV) Remediation results in unacceptable cross-media impacts.

(vi) A determination by the administrator not to require remediation under paragraph (v) of this section shall not affect the authority of the administrator to require the owner or operator to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically practicable and significantly reduce threats to human health or the environment.

(c) Corrective action implementation:

(i) The operator must:

(A) Implement the selected remedy as

approved by the administrator;

(B) Continue groundwater monitoring to meet the requirements of the assessment monitoring program and to demonstrate the effectiveness of the selected remedy in meeting established water quality standards; and

(C) Take interim measures as determined necessary by the administrator to ensure protection of public health and the environment. The administrator shall consider the following factors in determining the need for interim measures:

(I) Time required to develop and implement a final remedy;

(II) Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;

(III) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(IV) Further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;

(V) Weather conditions that may cause hazardous constituents to migrate or be released;

(VI) Risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and

(VII) Other situations that may pose threats to human health and the environment.

(ii) If the selected remedy is not meeting the corrective action standards, the owner or operator shall implement other methods or techniques which have been approved by the administrator that could practicably achieve compliance with the requirements, unless there is

no practicable alternative and the owner or operator meets the requirements of paragraph (c)(iii) of this section.

(iii) If a selected remedy cannot be practically achieved with any currently available methods, the owner or operator must:

(A) Demonstrate to the satisfaction of the administrator that the remedy cannot be achieved;

(B) Implement alternative measures which have been approved by the administrator to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment; and

(C) Implement alternate measures for control of the sources of contamination, which are consistent with the overall objective of the remedy and which are technically practicable.

(iv) All solid wastes managed pursuant to a remedy or interim measure under this section shall be managed in a manner that complies with the requirements of this chapter and that is protective of human health and the environment.

(v) Remedies shall be considered complete when:

(A) The owner or operator complies with the groundwater protection standards established under Section 6(b)(i)(E)(VIII) or (IX), at all points within the plume of contamination that lie beyond the groundwater monitoring well system established under Section 6(b)(i)(B);

(B) Compliance with the groundwater protection standards shall be considered complete when concentrations of Appendix B constituents have not exceeded the groundwater protection standard(s) for a period of three (3) consecutive years using the approved statistical procedures. The administrator may approve an alternate length of time during which the owner or operator must demonstrate compliance with the standard(s),

considering:

(I) Extent and concentration of the release(s);

(II) Behavior characteristics of the hazardous constituents in the groundwater;

(III) Accuracy of the data; and

(IV) Characteristics of the groundwater; and

(C) All actions required to complete the remedy have been satisfied.

(vi) When the corrective action remedy is complete, the operator must:

(A) Place a notice in the facility operating record; and

(B) Petition the administrator to be released from the financial assurance requirements for corrective action under Chapter 7 of these rules and regulations.

## Appendix A - Constituents for Detection Monitoring<sup>1</sup>

Common name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical abstracts service index name <sup>4</sup>	Suggested methods <sup>5</sup>	PQL ( $\mu\text{g/L}$ ) <sup>6</sup>
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### Inorganics (15)

Antimony	(Total)	Antimony	6010 7040 7041	300 2000 30
Arsenic	(Total)	Arsenic	6010 7060 7061	500 10 20
Barium	(Total)	Barium	6010 7080	20 1000
Beryllium	(Total)	Beryllium	6010 7090 7091	3 50 2
Cadmium	(Total)	Cadmium	6010 7130 7131	40 50 1
Chromium	(Total)	Chromium	6010 7190 7191	70 500 10
Cobalt	(Total)	Cobalt	6010 7200 7201	70 500 10
Copper	(Total)	Copper	6010 7210 7211	60 200 10
Lead	(Total)	Lead	6010 7420 7421	400 1000 10
Nickel	(Total)	Nickel	6010 7520	150 400
Selenium	(Total)	Selenium	6010 7740 7741	750 20 20
Silver	(Total)	Silver	6010 7760	70 100
Thallium	(Total)	Thallium	6010 7840 7841	400 1000 10
Vanadium	(Total)	Vanadium	6010 7910 7911	80 2000 40
Zinc	(Total)	Zinc	6010 7950 7951	20 50 0.5

### Volatiles (47)

Acetone	67-64-1	2-Propanone	8260	100
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Acrylonitrile	107-13-1	2-Propenenitrile	8030 8260	5 200
Benzene	71-43-2	Benzene	8020 8021 8260	2 0.1 5
Bromochloromethane; Chlorobromomethane	74-97-5	Methane, bromochloro-	8021 8260	0.1 5
Bromodichloromethane; Dibromochloromethane	75-27-4	Methane, bromodichloro-	8010 8021 8260	1 0.2 5
Bromoform; Tribromomethane	75-25-2	Methane, tribromo-	8010 8021 8260	2 15 5
Carbon disulfide	75-15-0	Carbon disulfide	8260	100
Carbon tetrachloride	56-23-5	Methane, tetrachloro-	8010 8021 8260	1 0.1 10
Chlorobenzene	108-90-7	Benzene, chloro-	8010 8020 8021 8260	2 2 0.1 5
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-	8010 8021 8060	5 1 10
Chloroform; Trichloromethane	67-66-3	Methane, trichloro-	8010 8021 8260	0.5 0.2 5
Dibromochloromethane; Chlorodibromomethane	124-48-1	Methane, dibromochloro-	8010 8021 8260	1 0.3 5
1,2-Dibromo-3-chloropropane; DBCP	96-12-8	Propane, 1,2-dibromo-3-chloro-	8011 8021 8260	0.1 30 25
1,2-Dibromoethane; Ethylene dibromide; EDB	106-93-4	Ethane, 1,2-dibromo-	8011 8021	0.1 10
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-	8010 8020 8021 8120 8260 8270	2 5 0.5 10 5 10
p-Dichlorobenzene; 1,4 Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-	8010	2
trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-	8260	100
1,1-Dichloroethane; Ethylidene chloride	75-34-3	Ethane, 1,1-dichloro-	8010 8021 8260	1 0.5 5
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,1-dichloro-	8010 8021 8260	0.5 0.3 5
1,1-Dichloroethylene; 1,1- Dichloroethene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro-	8010 8021 8260	1 0.5 5
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2	Ethene, 1,2-dichloro-, (Z)-	8021 8260	0.2 5
trans-1,2-Dichloroethylene trans-1,2-Dichloroethene	156-60-5	Ethene, 1,2-dichloro-, (E)-	8010 8021 8260	1 0.5 5
1,2-Dichloropropane;	78-87-5	Propane, 1,2-dichloro-	8010	0.5

Propylene dichloride			8021 8260	0.05 5
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-, (Z)-	8010 8260	20 10
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-, (E)-	8010 8260	5 5
Ethylbenzene	100-41-4	Benzene, ethyl-	8020 8221 8260	2 0.05 5
2-Hexanone; Methyl butyl ketone	591-78-6	2-Hexanone	8260	50
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-	8010 8021	20 10
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-	8010 8021	1 0.3
Methylene bromide; Dibromomethane	74-95-3	Methane, dibromo-	8010 8021 8260	15 20 10
Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-	8010 8021 8260	5 0.2 10
Methyl ethyl ketone; MEK; 2-Butanone	78-93-3	2-Butanone	8015 8260	10 100
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-	8010 8260	40 10
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1	2-Pentanone, 4-methyl-	8015 8260	5 100
Styrene	100-42-5	Benzene, ethenyl-	8020 8021 8260	1 0.1 10
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-	8010 8021 8260	5 0.05 5
1,1,2,2-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-	8010 8021 8260	0.5 0.1 5
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4	Ethene, tetrachloro-	8010 8021 8260	0.5 0.5 5
Toluene	108-88-3	Benzene, methyl-	8020 8021 8260	2 0.1 5
1,1,1-Trichloroethane; Methylchloroform	71-55-6	Ethane, 1,1,1-trichloro-	8010 8021 8260	0.3 0.3 5
1,1,2-Trichloroethane	79-00-5	Ethane, 1,1,2-trichloro-	8010 8260	0.2 5
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-	8010 8021 8260	1 0.2 5
Trichlorofluoromethane; CFC- 11	75-69-4	Methane, trichlorofluoro-	8010 8021 8260	10 0.3 5
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-	8010 8021 8260	10 5 15

Vinyl acetate	108-05-4	Acetic acid, ethenyl ester	8260	50
Vinyl chloride; Chloroethene	75-01-4	Ethene, chloro-	8010 8021 8260	2 0.4 10
Xylene (total)	See Note 11	Benzene, dimethyl-	8020 8021 8260	5 0.2 5

<sup>1</sup>The regulatory requirements pertain only to the list of substances; the right hand columns (Methods and PQL) are given for informational purposes only. See also footnotes 5 and 6.

<sup>2</sup>Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

<sup>3</sup>Chemical Abstracts Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.

<sup>4</sup>CAS index names are those used in the 9th Collective Index.

<sup>5</sup>Suggested Methods refer to analytical procedure numbers used in EPA Report SW-846 "Test Methods for Evaluating Solid Waste", third edition, November 1986, as revised, December 1987. Analytical details can be found in SW-846 and in documentation on file at the department. CAUTION: The methods listed are representative SW-846 procedures and may not always be the most suitable method(s) for monitoring an analyte under the regulations.

<sup>6</sup>Practical Quantitation Limits (PQLs) are the lowest concentrations of analytes in groundwaters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions. The PQLs listed are generally stated to one significant figure. PQLs are based on 5 mL samples for volatile organics and 1 L samples for semivolatile organics. CAUTION: The PQL values in many cases are based only on a general estimate for the method and not on a determination for individual compounds; PQLs are not a part of the regulation.

## Appendix B - Constituents for Assessment Monitoring<sup>1</sup>

Common name <sup>2</sup>	CAS RN <sup>3</sup> 10061-02-6	Chemical abstracts service index name <sup>4</sup>	Suggested methods <sup>5</sup>	PQL ( $\mu\text{g/L}$ ) <sup>6</sup>
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### Inorganics (19)

Antimony	(Total)	Antimony	6010 7040 7041	300 2000 30
Arsenic	(Total)	Arsenic	6010 7060 7061	500 10 20
Barium	(Total)	Barium	6010 7080	20 1000
Beryllium	(Total)	Beryllium	6010 7090 7091	3 50 2
Cadmium	(Total)	Cadmium	6010 7130 7131	40 50 1
Chromium	(Total)	Chromium	6010 7190 7191	70 500 10
Cobalt	(Total)	Cobalt	6010 7200 7201	70 500 10
Copper	(Total)	Copper	6010 7210 7211	60 200 10
Cyanide	57-12-5	Cyanide	9010	200
Lead	(Total)	Lead	6010 7420 7421	400 1000 10
Mercury	(Total)	Mercury	7470	2
Nickel	(Total)	Nickel	6010 7520	150 400
Selenium	(Total)	Selenium	6010 7740 7741	750 20 20
Silver	(Total)	Silver	6010 7760	70 100
Sulfide	18496-25-8	Sulfide	9030	4000
Thallium	(Total)	Thallium	6010 7840 7841	400 1000 10
Tin	(Total)	Tin	6010	40
Vanadium	(Total)	Vanadium	6010 7910 7911	80 2000 40
Zinc	(Total)	Zinc	6010 7950 7951	20 50 0.5

Volatiles (64)

Acetone	67-64-1	2-Propanone	8260	100
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile	8015	100
Acrolein	107-02-8	2-Propenal	8030 8260	5 100
Acrylonitrile	107-13-1	2-Propenenitrile	8030 8260	5 200
Allyl chloride	107-05-1	1-Propene, 3-chloro-	8010 8260	5 10
Benzene	71-43-2	Benzene	8020 8021 8260	2 0.1 5
Bromochloromethane; Chlorobromomethane	74-97-5	Methane, bromochloro-	8021 8260	0.1 5
Bromodichloromethane; Dibromochloromethane	75-27-4	Methane, bromodichloro-	8010 8021 8260	1 0.2 5
Bromoform; Tribromomethane	75-25-2	Methane, tribromo-	8010 8021 8260	2 15 5
Carbon disulfide	75-15-0	Carbon disulfide	8260	100
Carbon tetrachloride	56-23-5	Methane, tetrachloro-	8010 8021 8260	1 0.1 10
Chlorobenzene	108-90-7	Benzene, chloro-	8010 8020 8021 8260	2 2 0.1 5
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-	8010 8021 8060	5 1 10
Chloroform; Trichloromethane	67-66-3	Methane, trichloro-	8010 8021 8260	0.5 0.2 5
Chloroprene	126-99-8	1,3-Butadiene, 2-chloro-	8010 8260	50 20
Dibromochloromethane; Chlorodibromomethane	124-48-1	Methane, dibromochloro-	8010 8021 8260	1 0.3 5
1,2-Dibromo-3-chloropropane; DBCP	96-12-8	Propane, 1,2-dibromo-3-chloro-	8011 8021 8260	0.1 30 25
1,2-Dibromoethane; Ethylene dibromide; EDB	106-93-4	Ethane, 1,2-dibromo-	8011 8021	0.1 10
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-	8010 8020 8021 8120 8260 8270	2 5 0.5 10 5 10
m-Dichlorobenzene; 1,3-Dichlorobenzene	541-73-1	Benzene, 1,3-dichloro-	8010 8020 8021 8120 8260 8270	5 5 0.2 10 5 10

p-Dichlorobenzene; 1,4-Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-	8020 8021 8120 8260 8270	5 0.2 10 5 10
p-Dichlorobenzene; 1,4 Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-	8010	2
trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-	8260	100
Dichlorodifluoromethane	75-71-8	Methane, dichlorodifluoro-	8021 8260	0.5 5
1,1-Dichloroethane; Ethylidene chloride	75-34-3	Ethane, 1,1-dichloro-	8010 8021 8260	1 0.5 5
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,1-dichloro-	8010 8021 8260	0.5 0.3 5
1,1-Dichloroethylene; 1,1- Dichloroethene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro-	8010 8021 8260	1 0.5 5
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2	Ethene, 1,2-dichloro-, (Z)-	8021 8260	0.2 5
trans-1,2-Dichloroethylene trans-1,2-Dichloroethene	156-60-5	Ethene, 1,2-dichloro-, (E)-	8010 8021 8260	1 0.5 5
1,2-Dichloropropane; Propylene dichloride	78-87-5	Propane, 1,2-dichloro-	8010 8021 8260	0.5 0.05 5
1,3-Dichloropropane; Trimethylene dichloride	142-28-9	Propane, 1,3-dichloro-	8021 8260	0.3 15
2,2-Dichloropropane; Isopropylidene chloride	594-20-7	Propane, 2,2-dichloro-	8021 8260	0.5 5
1,1-Dichloropropene;	563-58-6	1-Propene, 1,1-dichloro-	8021 8260	0.2 5
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-, (Z)-	8010 8260	20 10
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-, (E)-	8010 8260	5 5
Ethylbenzene	100-41-4	Benzene, ethyl-	8020 8221 8260	2 0.05 5
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	8015 8260 8270	5 10 10
2-Hexanone; Methyl butyl ketone	591-78-6	2-Hexanone	8260	50
Isobutyl alcohol	78-83-1	1-Propanol, 2-methyl-	8015 8240	50 100
Methacrylonitrile	126-98-7	2-Propenenitrile, 2-methyl-	8015 8260	5 100
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-	8010 8021	20 10
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-	8010 8021	1 0.3
Methylene bromide; Dibromomethane	74-95-3	Methane, dibromo-	8010 8021 8260	15 20 10

Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-	8010 8021 8260	5 0.2 10
Methyl ethyl ketone; MEK; 2-Butanone	78-93-3	2-Butanone	8015 8260	10 100
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-	8010 8260	40 10
Methyl methacrylate	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester	8015 8260	2 30
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1	2-Pentanone, 4-methyl-	8015 8260	5 100
Naphthalene	91-20-3	Naphthalene	8021 8100 8260 8270	0.5 200 5 10
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile	8015 8260	60 150
Styrene	100-42-5	Benzene, ethenyl-	8020 8021 8260	1 0.1 10
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-	8010 8021 8260	5 0.05 5
1,1,2,2-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-	8010 8021 8260	0.5 0.1 5
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4	Ethene, tetrachloro-	8010 8021 8260	0.5 0.5 5
Toluene	108-88-3	Benzene, methyl-	8020 8021 8260	2 0.1 5
1,2,4-Trichlorobenzene	120-82-1	Benzene, 1,2,4-trichloro-	8021 8120 8260 8270	0.3 0.5 10 10
1,1,1-Trichloroethane; Methylchloroform	71-55-6	Ethane, 1,1,1-trichloro-	8010 8021 8260	0.3 0.3 5
1,1,2-Trichloroethane	79-00-5	Ethane, 1,1,2-trichloro-	8010 8260	0.2 5
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-	8010 8021 8260	1 0.2 5
Trichlorofluoromethane; CFC- 11	75-69-4	Methane, trichlorofluoro-	8010 8021 8260	10 0.3 5
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-	8010 8021 8260	10 5 15
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester	8260	50
Vinyl chloride; Chloroethene	75-01-4	Ethene, chloro-	8010 8021 8260	2 0.4 10
Xylene (total)	See Note 11	Benzene, dimethyl-	8020 8021 8260	5 0.2 5

Semi-Volatiles (108)

Acenaphthene	83-32-9	Acenaphthylene, 1,2-dihydro-	8100 8270	200 10
Acenaphthylene	208-96-8	Acenaphthylene	8100 8270	200 10
Acetophenone	98-86-2	Ethanone, 1-phenyl-	8270	10
2-Acetylaminofluorene; 2-AAF	53-96-3	Acetamide, N-9H-fluoren-2-yl-	8270	20
4-Aminobiphenyl	92-67-1	[1,1'-Biphenyl]-4-amine	8270	20
Anthracene	120-12-7	Anthracene	8100 8270	200 10
Benzo[a]anthracene; Benzanthracene	56-55-3	Benz[a]anthracene	8100 8270	200 10
Benzo[b]fluoranthene	205-99-2	Benz[e]acephenanthrylene	8100 8270	200 10
Benzo[k]fluoranthene	207-08-9	Benzo[k]fluoranthene	8100 8270	200 10
Benzo[ghi]perylene	191-24-2	Benzo[ghi]perylene	8100 8270	200 10
Benzo[a]pyrene	50-32-8	Benzo[a]pyrene	8100 8270	200 10
Benzyl alcohol	100-51-6	Benzenemethanol	8270	20
Bis(2-chloroethoxy)methane	111-91-1	Ethane, 1,1'-[methylenebis (oxy)]bis[2-chloro-	8110 8270	5 10
Bis(2-chloroethyl)ether; Dichloroethyl ether	111-44-4	Ethane, 1,1'-oxybis[2-chloro-	8110 8270	3 10
Bis(2-chloro-1-methylethyl) ether; 2,2'- Dichlorodiisopropyl ether; DCIP, See note 7	108-60-1	Propane, 2,2'-oxybis[1-chloro-	8110 8270	10 10
Bis(2-ethylhexyl) phthalate	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl)ester	8060	20
4-Bromophenyl phenyl ether	101-55-3	Benzene, 1-bromo-4-phenoxy-	8110 8270	25 10
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester	8060 8270	5 10
p-Chloroaniline	106-47-8	Benzenamine, 4-chloro-	8270	20
Chlorobenzilate	510-15-6	Benzeneacetic acid, 4-chloro- $\alpha$ -(4-chlorophenyl)- $\alpha$ -hydroxy-, ethyl ester	8270	10
p-Chloro-m-cresol; 4-Chloro-3-methylphenol	59-50-7	Phenol, 4-chloro-3-methyl-	8040 8270	5 20
2-Chloronaphthalene	91-58-7	Naphthalene, 2-chloro-	8120 8270	10 10
2-Chlorophenol	95-57-8	Phenol, 2-chloro-	8040 8270	5 10
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4-phenoxy-	8110 8270	40 10
Chrysene	218-01-9	Chrysene	8100 8270	200 10
m-Cresol; 3-methylphenol	108-39-4	Phenol, 3-methyl-	8270	10

o-Cresol; 2-methylphenol	95-48-7	Phenol, 2-methyl-	8270	10
p-Cresol; 4-methylphenol	106-44-5	Phenol, 4-methyl-	8270	10
Diallate	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S- (2,3-dichloro-2-propenyl) ester	8270	10
Dibenz[a,h]anthracene	53-70-3	Dibenz[a,h]anthracene	8100 8270	200 10
Dibenzofuran	132-64-9	Dibenzofuran	8270	10
3,3'-Dichlorobenzidine	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	8270	20
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-	8040 8270	5 10
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-	8270	10
Diethyl phthalate	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	8060 8270	5 10
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	8141 8270	5 20
Dimethoate	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester	8141 8270	3 20
p-(Dimethylamino)azobenzene	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-	8270	10
7,12-Dimethylbenz[a]anthracene	57-97-6	Benz[a]anthracene, 7,12-dimethyl-	8270	10
3,3'-Dimethylbenzidine	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	8270	10
2,4-Dimethylphenol; m-Xylenol	105-67-9	Phenol, 2,4-dimethyl-	8040 8270	5 10
Dimethyl phthalate	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	8060 8270	5 10
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-	8270	20
4,6-Dinitro-o-cresol; 4,6-Dinitro-2-methylphenol	534-52-1	Phenol, 2-methyl-4,6-dinitro-	8040 8270	150 50
2,4-Dinitrophenol	51-28-5	Phenol, 2,4-dinitro-	8040 8270	150 50
2,4-Dinitrotoluene	121-14-2	Benzene, 1-methyl-2,4-dinitro-	8090 8270	0.2 10
Di-n-butyl phthalate	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester	8060 8270	5 10
2,6-Dinitrotoluene	606-20-2	Benzene, 2-methyl-1,3-dinitro-	8090 8270	0.1 10
Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	8150 8270	1 20
Di-n-octyl phthalate	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester	8060 8270	30 10
Diphenylamine	122-39-4	Benzenamine, N-phenyl-	8270	10
Disulfoton	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester	8140 8141 8270	2 0.5 10
Ethyl methanesulfonate	62-50-0	Methanesulfonic acid, ethyl ester	8270	20

Famphur	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl]-O,O-dimethyl ester	8270	20
Fluoranthene	206-44-0	Fluoranthene	8100 8270	200 10
Fluorene	86-73-7	9H-Fluorene	8100 8270	200 10
Hexachlorobenzene	118-74-1	Benzene, hexachloro-	8120 8270	0.5 10
Hexachlorobutadiene	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	8021 8120 8260 8270	0.5 5 10 10
Hexachlorocyclopentadiene	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	8120 8270	5 10
Hexachloroethane	67-72-1	Ethane, hexachloro-	8120 8260 8270	0.5 10 10
Hexachloropropene	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-	8270	10
Indeno (1,2,3-cd)pyrene	193-39-5	Indeno [1,2,3-cd]pyrene	8100 8270	200 10
Isodrin	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1a,4a,4aB,5B,8B,8aB)-	8270 8260	20 10
Isophorone	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl-	8090 8270	60 10
Isosafrole	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-	8270	10
Kepone	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachloro-octahydro-	8270	20
Methapyrilene	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	8270	100
3-Methylcholanthrene	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	8270	10
Methyl methanesulfonate	66-27-3	Methanesulfonic acid, methyl ester	8270	10
2-Methylnaphthalene	91-57-6	Naphthalene, 2-methyl-	8270	10
Methyl parathion; Parathion methyl	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	8140 8141 8270	0.5 1 10
1,4-Naphthoquinone	130-15-4	1,4-Naphthalenedione	8270	10
1-Naphthylamine	134-32-7	1-Naphthalenamine	8270	10
2-Naphthylamine	91-59-8	2-Naphthalenamine	8270	10
o-Nitroaniline; 2-Nitroaniline	88-74-4	Benzenamine, 2-nitro-	8270	50
m-Nitroaniline; 3-Nitroaniline	99-09-2	Benzenamine, 3-nitro-	8270	50
p-Nitroaniline; 4-Nitroaniline	100-01-6	Benzenamine, 4-nitro-	8270	50

Nitrobenzene	98-95-3	Benzene, nitro-	8090 8270	40 10
o-Nitrophenol; 2-Nitrophenol	88-75-5	Phenol, 2-nitro-	8040 8270	5 10
p-Nitrophenol; 4-Nitrophenol	100-02-7	Phenol, 4-nitro-	8040 8270	10 50
N-Nitrosodiethylamine	55-18-5	Ethanamine, N-ethyl-N-nitroso-	8270	20
N-Nitrosodimethylamine	62-75-9	Methanamine, N-methyl-N-nitroso-	8070	2
N-Nitrosodi-n-butylamine	924-16-3	1-Butanamine, N-butyl-N-nitroso-	8270	10
N-Nitrosodiphenylamine	86-30-6	Benzenamine, N-nitroso-N-phenyl-	8070	5
N-Nitrosodipropylamine; N-Nitroso-N-dipropylamine; Di-n-propylnitrosamine	621-64-7	1-Propanamine, N-nitroso-N-propyl-	8070	10
N-Nitrosomethylethylamine	10595-95-6	Ethanamine, N-methyl-N-nitroso-	8270	10
N-Nitrosomorpholine	59-89-2	Morpholine, 4-nitroso-	8270	10
N-Nitrosopiperidine	100-75-4	Piperidine, 1-nitroso-	8270	20
N-Nitrosopyrrolidine	930-55-2	Pyrrolidine, 1-nitroso-	8270	40
5-Nitro-o-toluidine	99-55-8	Benzenamine, 2-methyl-5-nitro-	8270	10
Pentachlorophenol	87-86-5	Phenol, pentachloro-	8040 8270	5 50
Phenanthrene	85-01-8	Phenanthrene	8100 8270	200 10
Phenol	108-95-2	Phenol	8040	1
p-Phenylenediamine	106-50-3	1,4-Benzenediamine	8270	10
Pentachlorobenzene	608-93-5	Benzene, pentachloro-	8270	10
Pentachloronitrobenzene	82-68-8	Benzene, pentachloronitro-	8270	20
Phenacetin	62-44-2	Acetamide, N-(4-ethoxyphenyl)	8270	20
Phorate	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	8140 8141 8270	2 0.5 10
Pronamide	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	8270	10
Pyrene	129-00-0	Pyrene	8100 8270	200 10
Safrole	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	8270	10
1,2,4,5-Tetrachloro-benzene	95-94-3	Benzene, 1,2,4,5-tetrachloro-	8270	10
2,3,4,6-Tetrachlorophenol	58-90-2	Phenol, 2,3,4,6-tetrachloro-	8270	10
o-Toluidine	95-53-4	Benzenamine, 2-methyl-	8270	10
2,4,5-Trichlorophenol	95-95-4	Phenol, 2,4,5-trichloro-	8270	10
2,4,6-Trichlorophenol	88-06-2	Phenol, 2,4,6-trichloro-	8040 8270	5 10

O,O,O-Triethyl phosphorothioate	126-68-1	Phosphorothioic acid, O,O,O-triethyl ester	8270	10
sym-Trinitrobenzene	99-35-4	Benzene, 1,3,5-trinitro-	8270	10

## Pesticides (20)

Aldrin	309-00-2	1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1a,4a,4a $\beta$ ,5a,8a,8a $\beta$ )-	8080 8270	0.05 10
alpha-BHC	319-84-6	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1a,2a,3 $\beta$ ,4a,5 $\beta$ ,6 $\beta$ )-	8080 8270	0.05 10
beta-BHC	319-85-7	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1a,2 $\beta$ ,3a,4 $\beta$ ,5a,6 $\beta$ )-	8080 8270	0.05 20
delta-BHC	319-86-8	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1a,2a,3a,4 $\beta$ ,5a,6 $\beta$ )-	8080 8270	0.1 20
gamma-BHC; Lindane	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1a,2a,3 $\beta$ ,4a,5a,6 $\beta$ )-	8080 8270	0.05 20
Chlordane	See Note 8	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	8080 8270	0.1 50
4,4'-DDD	72-54-8	Benzene 1,1'-(2,2-dichloroethylidene)bis[4-chloro-	8080 8270	0.1 10
4,4'-DDE	72-55-9	Benzene, 1,1'-(dichloroethenylidene)bis[4-chloro-	8080 8270	0.05 10
4,4'-DDT	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-	8080 8270	0.1 10
Dieldrin	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1a,2 $\beta$ ,2a $\alpha$ ,3 $\beta$ ,6 $\beta$ ,6a $\alpha$ ,7 $\beta$ ,7a $\alpha$ )-	8080 8270	0.05 10
Endosulfan I	959-98-8	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3a,5a $\beta$ ,6a,9a,9a $\beta$ )-	8080 8250	0.1 10
Endosulfan II	33213-65-9	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3a,5a $\alpha$ ,6 $\beta$ ,9 $\beta$ ,9a $\alpha$ )-	8080 8270	0.05 20
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3,3-dioxide	8080 8270	0.5 10
Endrin	72-20-8	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1a $\alpha$ ,2 $\beta$ ,2a $\beta$ ,3a,6a,6a $\beta$ ,7 $\beta$ ,7a $\alpha$ )-	8080 8270	0.1 20

Endrin aldehyde	7421-93-4	1,2,4-Methenocyclopenta[cd]pentalene-5-carboxaldehyde, 2,2a,3,3,4,7-hexachlorodecahydro-, (1a,2b,2ab,4b,4ab,5b,6b,,6bb,7R*)-	8080 8270	0.2 10
Heptachlor	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	8080 8270	0.05 10
Heptachlor epoxide	1024-57-3	2,5-Methano-2H-indeno[1,2-b]oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a,-hexahydro-, (1a,1bb,2a,5a,5ab,6b,6aa)	8080 8270	1 10
Methoxychlor	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-	8080 8270	2 10
Parathion	56-38-2	Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester	8141 8270	0.5 10
Toxaphene	See Note 10	Toxaphene	8080	2

### Herbicides (3)

2,4-D; 2,4-Dichlorophenoxy-acetic acid	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-	8150	10
2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-	8150	2
Silvex; 2,4,5-TP	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	8150	2

### PCBs (7)

Polychlorinated biphenyls; PCBs; Aroclors	See Note 9	1,1'-Biphenyl, chloro derivatives	8080 8270	50 200
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<sup>1</sup>The regulatory requirements pertain only to the list of substances; the right hand columns (Methods and PQL) are given for informational purposes only. See also footnotes 5 and 6.

<sup>2</sup>Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

<sup>3</sup>Chemical Abstracts Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.

<sup>4</sup>CAS index names are those used in the 9th Collective Index.

<sup>5</sup>Suggested Methods refer to analytical procedure numbers used in EPA Report SW-846 "Test Methods for Evaluating Solid Waste", third edition, November 1986, as revised, December 1987. Analytical details can be found in SW-846 and in documentation on file at the department. CAUTION: The methods listed are representative SW-846 procedures and may not always be the most suitable method(s) for monitoring an analyte under the regulations.

<sup>6</sup>Practical Quantitation Limits (PQLs) are the lowest concentrations of analytes in groundwaters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions. The PQLs listed are generally stated to one significant figure. PQLs are based on 5 mL samples for volatile organics and 1 L samples for semivolatile organics. CAUTION: The PQL values in many cases are based only on a general estimate for the method and not on a determination for individual compounds; PQLs are not a part of the regulation.

<sup>7</sup>This substance is often called Bis(2-chloroisopropyl) ether, the name Chemical Abstracts Service applies to its noncommercial isomer, Propane, 2,2"-oxybis[2-chloro- (CAS RN 39638-32-9)

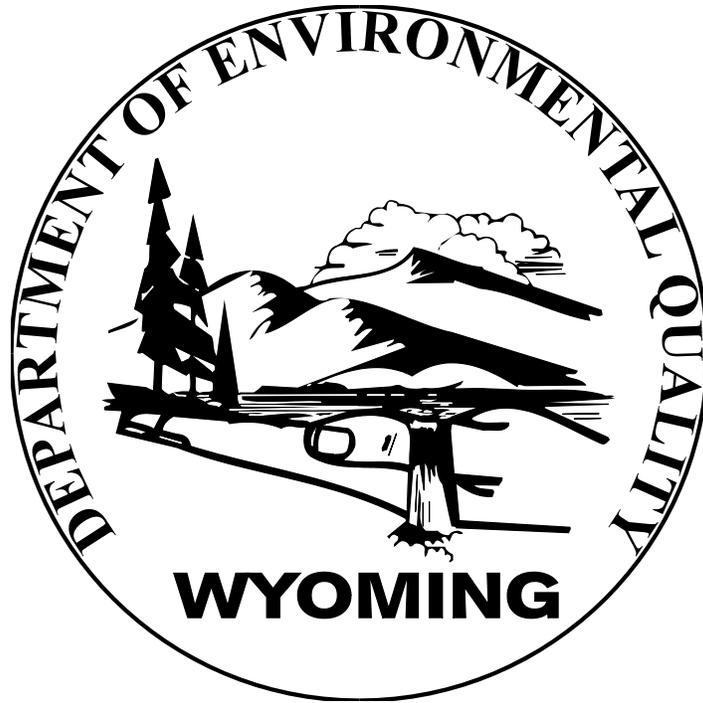
<sup>8</sup>Chlordane: This entry includes alpha-chlordane (CAS RN 5103-71-9), beta-chlordane (CAS RN 5103-74-2), gamma-chlordane (CAS RN 5566-34-7), and constituents of chlordane (CAS RN 57-74-9 and CAS RN 12789-03-6). PQL shown is for technical chlordane. PQLs of specific isomers are about 20 µg/L by method 8270.

<sup>9</sup>Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor 1016 (CAS RN 12674-11-2), Aroclor 1221 (CAS RN 11104-28-2), Aroclor 1232 (CAS RN 11141-16-5), Aroclor 1242 (CAS RN 53469-21-9), Aroclor 1248 (CAS RN 12672-29-6), Aroclor 1254 (CAS RN 11097-69-1), and Aroclor 1260 (CAS RN

11096-82-5). The PQL shown is an average value for PCB congeners.

<sup>10</sup>Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001-35-2), i.e., chlorinated camphene.

<sup>11</sup>Xylene (total): This entry includes o-xylene (CAS RN 96-47-6), m-xylene (CAS RN 108-38-3), p-xylene (CAS RN. 106-42-3), and unspecified xylenes (dimethylbenzenes) (CAS RN 1330-20-7). PQLs for method 8021 are 0.2 for o-xylene, and 0.1 for m- or p-xylene. The PQL for m-xylene is 2.0  $\mu\text{g/L}$  by method 8020 or 8260.



**SOLID WASTE  
RULES AND REGULATIONS**

**Chapter 7**

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## CHAPTER 7

### FINANCIAL ASSURANCE REQUIREMENTS

#### Section 1. In General.

(a) Authority: The authority for the rules and regulations promulgated in this chapter is the Wyoming Environmental Quality Act, W.S. 35-11-306 and W.S. 35-11-504.

#### (b) Applicability:

(i) This chapter governs all solid waste management facilities that are required to demonstrate financial assurance under W.S. 35-11-504. Exempt solid waste management facilities include those:

(A) Solid waste landfills regulated under Chapter 2 of these rules and regulations which are owned or operated by a municipality provided that the facility is a participating facility under W.S. 35-11-515(o) (iii);

(B) Owned and operated by the person disposing of solid waste generated at the facility who annually demonstrates to the director compliance with the financial assurance requirements of the Resource Conservation and Recovery Act, P.L. 94-580, as amended as of January 1, 1989;

(C) Which are also subject to bonding or financial assurance requirements under Article 2, 3, or 4 of the act if the director determines that the bond or financial assurance under Articles 2, 3, or 4 satisfies the requirements of this chapter;

(D) Which are subject to bonding or financial assurance requirements under W.S. 30-5-104(d) (i) (D) or 30 U.S.C. 226(g) as amended as of January 1, 1989;

(E) Owned or operated by an electric utility disposing of solid waste generated by an electric generation facility pursuant to a permit or license issued by the department, provided that the exemption may be

revoked by the council upon petition of the director for a period of time established by the council to secure remedial action in the event of any discharge of pollution to the air, land or to waters of the state which is in violation of a permit, standard, rule or requirement established under the provisions of the act;

(F) Solid waste management facilities other than those regulated under Chapter 2, which are owned or operated by a municipality;

(G) Type I and Type II sanitary landfills regulated under Chapter 2 which ceased receipt of wastes before October 9, 1991;

(H) Type I sanitary landfills regulated under Chapter 2 which received waste after October 9, 1991 but ceased receipt of waste before October 9, 1993 and installed an approved final cover system before October 9, 1994;

(I) Type II sanitary landfills regulated under Chapter 2 which received waste after October 9, 1991 but cease receipt of wastes before October 9, 1997 and install an approved final cover system before October 9, 1998; and

(J) Mobile transfer, treatment and storage facilities regulated under Chapter 6 of these rules and regulations.

(c) Objective: The objective of these rules and regulations is to provide financial assurance for the purposes specified in W.S. 35-11-504(a) and to establish the procedures for participating facilities as provided in W.S. 35-11-515.

(d) Severability: If any section or provision of this chapter, or the application of that section or provision to any person, situation, or circumstance is adjudged invalid for any reason, the adjudication does not affect any other section or provision of these regulations or the application of the adjudicated section or provision to any other person, situation, or circumstance. The Environmental Quality Council declares that it would have

adopted the valid portions and applications of this chapter without the invalid part, and to this end the provisions of this chapter are declared to be severable.

Section 2. Requirements to Demonstrate Financial Assurance.

(a) Financial assurance requirement for new nonmunicipally owned solid waste management facilities: Financial assurance and compliance with the department's rules and regulations will be required of all new nonmunicipally owned facilities, as specified by Section 1(b) of this chapter, prior to issuance of a permit.

(b) Financial assurance requirement for existing nonmunicipally owned solid waste management facilities: Compliance with these financial assurance rules and regulations will be required of all existing nonmunicipally owned solid waste management facilities as specified by Section 1(b) of this chapter no later than June 8, 1991.

(c) Financial assurance requirement for conditionally exempt facilities: Financial assurance will be required of all existing, conditionally exempt solid waste management facilities specified in Section 1(b) (i) (E) :

(i) If the director determines the facility is in violation of the department's rules and regulations resulting in the release of contamination to the air, land or water, the director shall issue an order to the operator of the regulated facility to show cause why financial assurance is not required. Opportunity for a public hearing before the council shall be provided. If a hearing is requested the director shall inform all interested parties of the time and place of the hearing. Upon failure of the operator to show cause why financial assurance should not be required, the council shall require financial assurance for a period of time needed to secure remedial action. The financial assurance requirement may be removed when the violations have been corrected to the director's satisfaction. No financial assurance requirement shall be unreasonably prolonged.

(ii) The financial assurance requirement specified in paragraph (c) of this section shall become effective upon thirty (30) days notice to the applicant.

(d) Financial assurance requirements for municipally-owned or operated solid waste landfills regulated under Chapter 2 of these rules and regulations: Compliance with these financial assurance rules and regulations will be required of all new and existing municipally-owned or operated Type I solid waste landfills regulated under Chapter 2 of these rules and regulations effective April 9, 1997. Compliance for Type II solid waste landfills regulated under Chapter 2 of these rules and regulations will be required effective October 9, 1997. Notwithstanding these effective dates, if the effective date for compliance with financial assurance requirements for any category of existing sanitary landfills contained in 40 CFR part 258 is modified by the U.S. Environmental Protection Agency, then the effective dates for compliance specified by this subsection shall be the modified USEPA date, for the applicable category of landfills. Compliance shall be demonstrated as follows:

(i) For financial assurance for the costs of closure and post-closure care, operators shall demonstrate compliance using either the requirements of Sections 3 through 8 of these rules and regulations, or the requirements of Section 9;

(ii) For financial assurance for the costs of corrective action requirements, if needed, operators shall demonstrate compliance using the requirements of Sections 3 through 8 of these rules and regulations.

### Section 3. Coverage.

(a) General purpose and scope: Permits for regulated facilities require closure, post-closure and corrective action financial assurance plans as prescribed in this chapter for the purpose of assuring that operators of these facilities are financially responsible for protection of public health and the environment. This chapter contains general requirements governing closure, post-closure care and corrective action for violations of a permit, standard, rule or requirement. These

requirements may be supplemented by site specific closure, post-closure care and corrective action permit conditions. Together with the factors used to produce cost estimates, these maintenance requirements form the basis of the financial assurance standards included in this chapter.

(b) Closure and post-closure requirements:

(i) Notification:

(A) An operator intending to close a regulated facility shall notify the administrator of the intention to do so at least 180 days prior to the anticipated date for initiation of closure. Simultaneous notice shall be made by the operator to the governing body of each locality and adjacent property owners by certified or registered mail.

(B) If the facility has been open to the general public, the operator shall publish notice of closure in an area newspaper, as well as post one sign at each facility access point notifying all persons of the closing and prohibition against further receipt of waste materials. Further, suitable barriers shall be installed at former accesses to prevent new waste from being deposited.

(ii) Closure and post-closure standards:

(A) Closure and post-closure maintenance shall occur in accord with approved plans. A closure plan and a post-closure plan shall be submitted with the permit application. The operator shall submit a revised closure plan and post-closure plan to the administrator for review and approval as necessary to describe any plan changes.

(B) The operator shall close the facility in a manner that minimizes the need for post-closure maintenance and controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, the post-closure escape of leachate, surface run-off or waste decomposition products to the groundwater, surface water or the atmosphere. The post-closure monitoring period shall continue for a minimum of thirty (30) years after the date of completing

closure of the regulated facility, unless shortened by the director under Chapter 2, Section 7(b) of these rules and regulations. The minimum post-closure monitoring period shall be extended if the director determines it is needed to protect human health and the environment.

(iii) Inspection:

(A) The administrator shall inspect all closed regulated facilities to determine if the closure is complete and adequate in accordance with the approved plan after being notified by the operator that closure has been completed. The administrator shall provide written inspection results to the operator of a closed facility after the inspection. If the closure is not satisfactory, the administrator shall specify necessary construction or such other steps as may be appropriate to bring unsatisfactory sites into compliance with closure requirements.

(B) Notification by the administrator that the closure is satisfactory does not relieve the operator of responsibility for corrective action in accordance with regulations of the department to prevent or abate problems caused by the regulated facility which are subsequently discovered.

(c) Corrective action requirements.

(i) Notification:

(A) The administrator shall notify the operator of the need to take corrective action to remedy a violation of a permit condition, standard, rule or requirement relating to a regulated facility. The notification shall describe the nature of the violation.

(B) If deemed necessary by the administrator, the operator will be required to close the facility and cease further receipt of waste materials.

(C) If the facility is closed, the operator shall post one sign notifying all persons of the closing and prohibition against further receipt of waste materials. Further, suitable barriers shall be installed

at former accesses to prevent new waste from being deposited.

(ii) Remediation activities: In the event of a release, the operator shall:

(A) Initiate immediate measures to:

(I) Prevent further release to the environment.

(II) Prevent further migration of the released substance into surrounding soils and waters of the state.

(III) Identify, monitor and mitigate any safety hazards or health risks associated with the violation.

(B) Prepare a plan to conduct an investigation of the release, the release site and any surrounding area which may be affected by the release. The plan shall include:

(I) A comprehensive subsurface investigation to define the extent and degree of contamination.

(II) A schedule for conducting the investigation.

(III) A cost estimate for a third party to perform the tasks identified by the plan.

(C) Submit the investigation plan to the administrator within thirty (30) days. The extent of contamination study should begin as soon as the plan has been approved and all necessary permits obtained.

(D) Conduct the extent of contamination study in accordance with the approved plan and submit a written report of the findings to the administrator.

(E) If required by the administrator, develop a comprehensive plan for mitigation and cleanup.

The remediation plan shall be submitted to the administrator for approval. The remediation plan shall be implemented as soon as the administrator has approved the plan and all necessary permits have been obtained. The remediation plan shall contain an estimate of the costs for a third party to perform the tasks identified by the plan.

(d) Financial assurance: In order to assure that the costs associated with protecting the public health and safety from the consequences of an abandonment, or a failure to properly execute closure, post-closure care or required corrective action and cleanup of a regulated facility are recovered from the operator of such a facility, the operator shall provide financial assurance in one, or a combination of the forms described in this chapter including a self bond, a surety bond, a federally insured certificate of deposit, government-backed securities, an irrevocable letter of credit, or cash. Such financial assurance shall be in the amount calculated as the cost estimate using the procedures set forth in Sections 3(e)(i), 3(e)(ii) and 3(e)(iii) of this chapter. Evidence of the selected forms of financial assurance shall be filed with the director as part of the permit application procedures and prior to the issuance of an operating permit. The director may reject the proposed forms of assurance of financial responsibility if the evidence submitted does not adequately assure that funds will be available as required by these rules. The operator shall be notified in writing within sixty (60) days of receipt of the evidence of financial assurance of the decision to accept or reject the proposed forms of financial assurance.

(e) Cost estimates:

(i) Cost estimate for facility closure:

(A) In submitting a closure plan as required by these regulations, the operator of a regulated facility shall include therein an itemized written estimate of the cost of closing the facility. The estimated closing cost shall be determined by the director on a case-by-case basis, considering information supplied by the operator. Such costs shall be based on the work

required for a third party contractor. If written bids are used to estimate costs, the director may obtain additional bids to substantiate the accuracy of the estimated costs.

(B) The estimated closing cost shall be based on the work required for a third party contractor to effect proper closure at the most expensive point in the life of the facility. Those factors to be considered in estimating the closure cost shall include:

(I) The size and topography of the site.

(II) The daily or weekly volume of waste to be received at the site.

(III) Availability of cover and fill material needed for site grading.

(IV) The type of waste to be received at the site.

(V) Disposal method and sequential disposal plan.

(VI) The location of the site and the character of the surrounding area.

(VII) Requirements for surface drainage.

(VIII) Operation and maintenance of the leachate collection and treatment system, and the off-site disposal of leachate.

(IX) Environmental quality monitoring system.

(X) Structures and other improvements to be dismantled and removed. Salvage values cannot be used to offset demolition costs.

(XI) Site storage capacity for solid waste, incinerator residue and compost material.

(XII) Off-site disposal requirements.

(XIII) Vector control requirements.

(XIV) A minimum of fifteen percent (15%) variable contingency fee to cover other closure costs as determined appropriate by the director.

(XV) Other site specific factors.

(C) Revised closure cost estimates will be submitted to the director as specified in this subsection. When the revised estimates are approved by the director, the operator shall submit revised financial assurance for the revised closure costs.

(I) If written bids are used to estimate closure costs, the operator shall provide revised closure cost estimates on an annual basis.

(II) If written bids are not used to estimate closure costs, the operator shall provide revised closure cost estimates every four years or with the permit renewal application, whichever comes first.

(ii) Cost estimate for facility post-closure:

(A) In submitting a closure plan as required by these regulations, the operator of a regulated facility shall include therein a written estimate of the cost of post-closure care, monitoring and maintenance. Unless on-site disposal of wastes or residues from the treatment or storage of wastes is planned or required, an incinerator, resource recovery facility, compost facility or storage surface impoundment will not be required to include a post-closure cost estimate in its closure plan. The estimated post-closure cost shall be determined by the director on a case-by-case basis considering information supplied by the operator. Such costs shall be based on the work required for a third party contractor. If written bids are used to estimate costs, the director may obtain additional bids to substantiate the accuracy of the estimated costs.

(B) Those factors to be considered in estimating post-closure maintenance costs shall include:

(I) The size and topography of the site.

(II) The type and quantity of waste received.

(III) Disposal method and sequential disposal plan.

(IV) The potential for significant leachate production and the possibility of contaminating water supplies.

(V) Environmental quality monitoring systems.

(VI) Soil conditions.

(VII) The location of the site and the character of the surrounding area.

(VIII) A minimum of fifteen percent (15%) contingency fee to cover other post-closure costs as determined appropriate by the director.

(IX) Other site specific factors.

(C) Estimated costs of post-closure activities shall be determined on a case-by-case basis. Revised post-closure cost estimates will be submitted to the director on an annual basis as specified in this subsection. When the revised estimates are approved, the operator shall submit revised financial assurance for the revised post-closure costs.

(I) If written bids are used to estimate post-closure costs, the operator shall provide revised post-closure cost estimates on an annual basis.

(II) If written bids are not used to estimate post-closure costs, the operator shall provide revised post-closure cost estimates every four years or with the permit renewal application whichever comes first.

(iii) Cost estimate for corrective action:

(A) For solid waste management facilities regulated under W.S. 35-11-504, the operator shall provide a supplemental financial assurance in an amount sufficient to meet the requirements of Section 3(c) of this chapter no later than thirty (30) days after the director approves the investigation or mitigation plan under Section 3(c)(ii)(C) or (E).

(B) The factors to be considered in estimating the cost of corrective actions and cleanup of a release shall include the following:

(I) Soils, geologic and hydrogeologic conditions at the site.

(II) The type and quantity of waste received.

(III) Disposal method and sequential disposal plan.

(IV) The potential for significant leachate production and the possibility of contaminating groundwater.

(V) Environmental quality monitoring systems.

(VI) The location of the site and the character of the surrounding area.

(VII) A minimum of fifteen percent (15%) contingency fee to cover other corrective action and cleanup costs as determined appropriate by the director.

(VIII) The ability of the facility to prevent and detect a release and to facilitate cleanup activities. The criteria used to evaluate this ability shall include design, construction, operation, monitoring and contingency plans submitted as part of the application package.

(IX) The class, use, value and

environmental vulnerability of surface and groundwater resources which may be impacted by a release.

(X) Other site specific factors.

(f) Financial assurance for facility closure, post-closure and corrective action:

(i) General:

(A) For each regulated facility for which a permit is applied, financial assurance shall be provided for closure and post-closure activities, and for corrective action if required under Section 3(e)(iii).

(B) Determination of the financial assurance requirements for corrective action and cleanup of commercial oil field waste disposal facilities will be made by the Water Quality Division when the construction permit application is evaluated.

(ii) Forms of financial assurance: Financial assurance may be provided in one or a combination of the following forms executed in the amount calculated as the estimated closure and post-closure costs in accordance with W.S. 35-11-504(a)(i). These forms may also be available for financial assurance for corrective actions at a regulated facility.

(A) Self bond;

(B) Surety bond;

(C) Federally insured certificates of deposit;

(D) Government-backed securities;

(E) Cash;

(F) Letters of credit.

(g) Transfer of permits: Permits may be transferred from one operator to another only if the new operator can demonstrate compliance with the financial assurance

requirements of this chapter.

Section 4. Forms of Financial Assurance.

(a) Self bonding:

(i) Initial application to self bond: Initial application to self bond shall be made at the time the operator makes written application to the director to construct, operate or modify a regulated facility. The application shall be on forms furnished by the director and shall contain:

(A) Identification of operator by:

(I) For corporations, name, address, telephone number, state of incorporation, principal place of business and name, title and authority of person signing application, a corporate resolution authorizing the application, and statement of authority to do business in the State of Wyoming, or

(II) For all other forms of business enterprises, name, address and telephone number and statement of how the enterprise is organized, law of the state under which it is formed, place of business, and relationship and authority of the person signing the application.

(B) Amount of bond required, to be determined in accordance with W.S. 35-11-504(a)(i) or W.S. 35-11-306(d). If the self bond amount is proposed to be less than the full bond amount, the amount which is proposed to be under a self bond is the bond required.

(C) Type of operation and anticipated dates performance is to be commenced and completed.

(D) Brief chronological history of business operations conducted within the last five (5) years which would illustrate a continuous operation for five (5) years immediately preceding the time of application.

(I) The director may allow a joint

venture or partnership with less than five (5) years of continuous operation to qualify under this requirement, if each member of the joint venture or partnership has been in continuous operation for at least five (5) years immediately preceding the time of application.

(II) When calculating the period of continuous operation, the director may exclude past periods of interruption to the operation of the business entity that were beyond the applicant's control and that do not affect the applicant's likelihood of remaining in business during the proposed operation of the regulated facility.

(E) Information in sufficient detail to show good faith performance of past operation and closure/post-closure obligations.

(F) A statement, in detail, to show a history of financial solvency. For an initial bond, each operator must provide audited financial statements supporting the following comparative documents, prepared and certified by an independent Certified Public Accountant who, by reason of education, experience or special training, and disinterest, is competent to analyze and interpret the operator's financial solvency. All statements shall be prepared following generally accepted principles of accounting.

(I) A comparative balance sheet which shows assets, liabilities and owner equity for five (5) years. The operator may provide common-size documents for confidentiality.

(II) A comparative income statement which shows all revenues and expenses for five (5) years. The operator may provide common-size documents for confidentiality.

(III) A report for the most recently completed fiscal year containing the accountant's audit opinion or review opinion of the balance sheet and income statement with no adverse opinion.

(IV) Notwithstanding the language in

(F) above, unaudited financial statements may be submitted to support the comparative documents where current fiscal year quarters have ended but a CPA opinion has not yet been obtained because the fiscal year has not yet ended.

(G) Financial information in sufficient detail to show that the operator meets one of the following criteria (the specific criterion relied upon shall be identified).

(I) The operator has a rating for all bond issuance actions over the past five (5) years of "A" or higher as issued by either Moody's Investor Service or Standard and Poor's Corporation (the rating service should be identified together with any further breakdown of specific ratings);

(II) The operator has a tangible net worth of at least \$10 million, and a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater. The two ratio requirements must be met for the past year, and documented for the four (4) years preceding the past year. Explanations should be included for any year where the ratios fall below the stated limits.

(III) The operator's fixed assets in the United States total at least \$20 million, and the operator has a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater. The two ratio requirements must be met for the past year and documented for the four (4) years preceding the past year. Explanations should be included for any year where the ratios fall below the stated limits.

(IV) If the operator chooses (II) or (III), the two ratios shall be calculated with the proposed self bond amount added to the current or total liabilities for the current year. The operator may deduct the costs currently accrued for reclamation which appear on the balance sheet.

(H) A statement listing any notices issued by the Securities and Exchange Commission or proceedings initiated by any party alleging a failure to comply with

any public disclosure or reporting requirements under the securities laws of the United States. Such statement shall include a summary of each such allegation, including the date, the requirement alleged to be violated, the party making the allegation, and the disposition or current status thereof.

(I) A statement which:

(I) Identifies by name, address and telephone number, a registered office which may be but need not be, the same as the operator's place of business,

(II) Identifies by name, address and telephone number, a registered agent, which agent must be either an individual resident in this state, whose business office is identical with such registered office, or a domestic corporation, or a foreign corporation authorized to transact business in the state, having a business office identical with such registered office. The registered agent so appointed by the operator shall be an agent to such operator upon whom any process, notice or demand required or permitted by law to be served upon the operator may be served.

(III) Acknowledges that if the operator fails to appoint or maintain a registered agent in this state, or whenever any such registered agent cannot be reasonably found at the registered office, then the Wyoming Secretary of State shall be an agent for such operator upon whom any process, notice or demand may be served. In the event of any such process, the Wyoming Secretary of State shall immediately cause one copy of such process, notice or demand to be forwarded, by registered or certified mail, to the operator at his principle place of business. The Wyoming Secretary of State shall keep a record of all processes, notices, or demands served upon him under this paragraph, and shall record therein the time of such service and his action with reference thereto.

(IV) Acknowledges that should the operator change the registered office or registered agent, or both, a statement indicating such change shall be filed immediately with the Solid and Hazardous Waste Division.

(V) Acknowledges that nothing herein contained shall limit or affect the right to serve any process, notice or demand required or permitted by law to be served upon an operator in any other manner now or hereafter permitted by law.

(J) The director may accept a written guarantee for an operator's self bond from a parent corporation guarantor or from a federal agency, if the guarantor or federal agency satisfies the financial criteria of this chapter as if it were the operator. The operator must only supply information addressing requirements not met by the parent corporation guarantor. The terms of the parent corporate or federal agency guarantee shall provide for the following:

(I) If the operator fails to complete the closure/post-closure plan the guarantor shall do so or the guarantor shall be liable under the indemnity agreement to provide funds to the state sufficient to complete the reclamation plan, but not to exceed the bond amount.

(II) The parent corporate or federal agency guarantee shall remain in force unless the guarantor sends notice of cancellation by registered or certified mail to the operator and to the director at least ninety (90) days in advance of the cancellation date, and the director accepts the cancellation. The cancellation shall be accepted by the director if the operator obtains a suitable replacement bond before the cancellation date, if the lands for which the self bond, or portion thereof, was accepted have not been disturbed, or if the lands have been released under W.S. 35-11-504.

(K) For the director to accept a regulated facility operator's self bond, the total amount of the outstanding and proposed self bond of the operator shall not exceed 25 percent (25%) of the operator's tangible net worth in the United States. For the director to accept a corporate guarantee, the total amount of the parent corporation guarantor's present and proposed self bonds and guaranteed self bonds shall not exceed 25 percent (25%) of the guarantor's tangible net worth in the United

States.

(ii) Approval or denial of operator's self bond application:

(A) The director, within sixty (60) days of the operator's submission of all materials necessary to base a decision on the application shall:

(I) Approve or reject such application and declare in writing its reasons for such action to the operator or his registered agent. The decision shall be based on the information submitted and shall be sufficient to meet the demonstrations required by W.S. 35-11-504(a).

(II) If a rejection is based on inadequate information or failure of the operator to supply all necessary material, the director shall allow the operator thirty (30) days to remedy the deficiencies. Such corrections shall be made to the satisfaction of the director. The director shall have an additional sixty (60) days to approve or reject the corrected application.

(B) If the director accepts an uncollateralized self bond, an indemnity agreement shall be submitted subject to the following requirements:

(I) The indemnity agreement shall be executed by all persons and parties who are to be bound by it, including the parent corporation or federal agency guarantor, and shall bind each jointly and severally.

(II) Corporations applying for a self bond or parent corporation guaranteeing a subsidiary's self bond shall submit an indemnity agreement signed by two corporate officers who are authorized to bind the corporation. A copy of such authorization shall be provided to the director. A federal agency guaranteeing an operator's self bond shall submit an indemnity agreement signed by two officers of the agency who are authorized to bind the agency and a copy of their authorization. The agency shall also submit documents supporting the availability of a cause of action against the federal agency for performance under the indemnity

agreement.

(III) If the applicant is a partnership or joint venture, the agreement shall bind each partner or party who has a beneficial interest directly or indirectly, to the operator.

(IV) The indemnity agreement shall provide that the persons or parties bound shall pay all litigation costs including reasonable attorney fees incurred by the state in any successful effort to enforce the agreement against the operator.

(C) If the application is rejected based on the information required in Section 4(a)(i), or based on the limitation set in Section 4(a)(i)(K) then the operator may offer collateral and an indemnity agreement to support the self bond application. The indemnity agreement shall be subject to the requirements of (B) above.

(I) For any collateral offered to support a self bond, the following information shall be provided.

(1.) The value of the property. The property shall be valued at the difference between 75 percent (75%) of the fair market value and any reasonable expense anticipated by the director in selling the property. The fair market value shall be determined by an appraiser or appraisers appointed by the director and mutually acceptable to both the director and the operator. The appraisal shall be expeditiously made, and copies thereof furnished to the director and the operator. The expense of the appraisal shall be borne by the operator.

(2.) A description of the property satisfactory for deposit to further assure that the operator shall faithfully perform all requirements of Act. The director shall have full discretion in accepting any such offer.

a. Real property shall not include any lands in the process of being used for the transfer, treatment, processing, storage or disposal of

solid wastes, reclaimed or subject to this application. The operator may offer any lands the bonds for which have been released or lands within a permit area which will not be affected. In addition, any land used as a security shall not be used for disposal, treatment, processing or storage while it is a security.

b. Securities shall only include those which are United States government securities or those state government securities acceptable to the director. Securities shall meet the requirements specified in the definition of "Collateral" found in Chapter 1, Section 1(e).

c. Personal property shall be in possession of the operator, shall be unencumbered, and shall not include:

i. Property which is already being used as collateral, or

ii. Goods which the operator sells in the ordinary course of his business, or

iii. Fixtures, or

iv. Certificates of deposit which are not federally insured or where the depository is unacceptable to the director.

(3.) Evidence of ownership submitted in one of the following forms:

a. If the property offered for deposit is real property, the operator's interest must be evidenced by:

i. In the case of a federal or state lease, a status report prepared by an attorney, satisfactory to the director as disinterested and competent to so evaluate the asset, and an affidavit from the owner in fee establishing that the leasehold could be transferred upon default.

ii. In the case of a

fee simple interest, a title certificate or similar evidence of title and encumbrances prepared by an abstract office authorized to transact business within the state and satisfactory to the director.

b. If the property offered for deposit is a security, the operator's interest must be evidenced by possession of the original or a notarized copy of the certificate or a certified statement of account from a brokerage house.

c. If the property offered for deposit is personal property as defined in Chapter 1, Section 1(e)(i)(K), evidence of ownership shall be submitted in the form satisfactory to the director to establish unquestionable title to the property to the operator.

(II) In addition to submitting the above information, if the operator offers personal property as collateral to support a self bond, he must meet the financial criteria contained in (1.) or (2.) following:

(1.) The operator must have a tangible net worth of at least \$10 million, a ratio of total liabilities to net worth of 3.0 times or less, and a ratio of current assets to current liabilities of 1.0 times or greater. The two ratios shall be calculated with the proposed self bond amount added to the current or total liabilities for the current year. The operator may deduct the costs currently accrued for reclamation which appear on the balance sheet.

(2.) The operator must have fixed assets in the United States that total at least \$20 million, a ratio of total liabilities to net worth of 3.0 times or less, and a ratio of current assets to current liabilities of 1.0 times or greater. The two ratios shall be calculated with the proposed self bond amount added to the current or total liabilities for the current year. The operator may deduct the costs currently accrued for closure/post-closure which appear on the balance sheet.

(III) If the director accepts

personal property as collateral to support a self bond, the director shall require:

(1.) Quarterly maintenance reports prepared by the operator, and

(2.) A perfected, first-lien security interest in the property used, in favor of the Wyoming Department of Environmental Quality. This security interest shall be perfected by filing a financial statement or taking possession of the collateral in accordance with (IV) (1.) below.

(3.) In addition, the department may also require quarterly inspections of the personal property by a qualified representative of the department.

(IV) If the director accepts any property as collateral to support a self bond, the director shall, as applicable, require possession by the director of the personal property, or a mortgage or security agreement executed by the operator in favor of the Department of Environmental Quality. The requirement shall be that which is sufficient to vest such interest in the property in the director to secure the right and power to sell or otherwise dispose of the property by public or private proceedings so as to insure reclamation of the affected lands in accordance with the act. Personal property collateral to support a self bond shall be secured under the provisions of the Uniform Commercial Code as required by (2.) below.

(1.) Any mortgage shall be executed and duly recorded as required by law so as to be superior to all other liens, mortgages or encumbrances pertaining to the real property in question.

(2.) Any security interest created by a security agreement shall be perfected by filing a financing statement or taking possession of the collateral in accordance with W.S. 34-21-950 through W.S. 34-21-955 (1977). The director shall have all rights and duties set forth in W.S. 34-21-926 (1977) when the collateral is in its possession as a secured party, as defined in W.S. 34-21-905(a) (ix). Any money received from

the collateral during this period of time shall be remitted to the operator. When the collateral is left in the possession of the operator, the security agreement shall require that, upon default, the operator shall assemble the collateral and make it available to the director at a place to be designated by the director which is reasonably convenient to both parties.

(V) The operator may, with written consent from the director, substitute for any of the property held hereunder other property upon submittal of all information required under this subsection and compliance with all requirements of this subsection so as to secure all obligations under all periods of time as they relate to disposal operations.

(VI) For collateral posted to support a self bond, all persons with an interest in the collateral shall be notified by the operator of the posting, and of all other actions affecting the collateral.

(iii) Renewal bonds:

(A) Information for the renewal bond under the self bonding program which shall accompany the annual report shall include:

(I) Amount of bond required, which shall be determined in accordance with W.S. 35-11-504. If the self bond amount is proposed to be less than the full bond amount, the amount which is proposed to be under a self bond is the bond required.

(II) Financial information in sufficient detail to show that the guarantor still meets one of the criteria in Section 4(a)(i)(G), and the limitation in Section 4(a)(i)(K). The director requires financial statements for the most recently completed fiscal year together with an independent Certified Public Accountant's audit opinion or review opinion of the financial statements with no adverse opinion. Additional unaudited information may be required by the director.

(III) If the director has accepted a

mortgage, any evidence of change in value, title and possession of the property shall be submitted.

(IV) If the director deems it necessary to revalue any asset, it may appoint the appraiser or appraisers mutually acceptable to the director and the operator. Any such reappraisal shall be expeditiously made, and copies thereof furnished to the director and the operator. The expense of the appraisal shall be borne by the operator. The findings of the appraisal shall be final and binding unless both parties agree to a reappraisal.

(V) For regulated facility operators using personal property as collateral to support a self bond, the operator's current financial information showing continuing compliance with Section 4(a)(ii)(C)(II) of this chapter.

(B) If the director has authorized a parent corporate guarantee, the parent corporation shall supply all information required under subsection (iii)(A)(II) of this section.

(C) Any valid initial self bond shall carry the right of successive renewal as long as the above listed information is submitted which demonstrates that the guarantor remains qualified under W.S. 35-11-504.

(iv) Substitution of the operator's self bond:

(A) The director may require the operator to substitute a good and sufficient corporate surety licensed to do business in the state if the director determines in writing that the self bond of the operator fails to provide this protection consistent with the objectives and purposes of W.S. 35-11-504. The director shall require this substitution if the financial information submitted or requested under Section (4)(a)(ii)(A)(II) indicates that the operator no longer qualifies under the self bonding program. Substitution of an alternate bond shall be made within thirty (30) days. The operator may also request substitution. This request is contingent upon the operator meeting all the requirements of the bond provisions, W.S. 35-11-504. If

these requirements are met, the director shall accept substitution.

(B) If the operator fails within sixty (60) days to make a substitution for the revoked self bond with a corporate surety, cash, governmental securities, or federally insured certificates of deposit, or irrevocable letters of credit, the director shall suspend or revoke the permit until such substitution is made.

(C) All methods of substitution shall be made in accordance with the bonding provisions in W.S. 35-11-504. The director shall either:

(I) Require substitution of a good and sufficient corporate surety licensed to do business in the state that will stand as surety so as to cover all periods of time as they relate to disposal operations, or

(II) Retain from the operator sufficient assets within the department so as to cover that period of time of the disposal operation which is not covered by the substituted surety. Those assets not retained shall be returned to the operator within sixty (60) days free from the department's encumbrances, liens, mortgages or security interests.

(v) Requirements for forfeiture and release:

(A) All requirements as to bond forfeiture proceedings and the release of bonds shall be consistent with W.S. 35-11-504, excepting the requirements as to notification to the surety. When the director has required a mortgage, and the bond has been forfeited, foreclosure procedures shall be in accordance with W.S. 34-4-101 through 34-4-113 (1977).

(B) For self bonds supported by collateral, upon bond release property return shall be of that form sufficient for the director to release that portion of the interest or mortgage commensurate with the amount of the bond released less any disposed of in accordance with the mortgage or indemnity agreement.

(b) Surety bonds:

(i) A corporate surety shall not be considered good and sufficient for purposes of W.S. 35-11-504 or unless:

(A) It is licensed to do business in the state;

(B) The estimated bond amount does not exceed the limit of risk as provided for in W.S. 26-5-110, nor raise the total of all bonds held by the applicant under that surety above three times the limit of risk;

(C) The surety agrees:

(I) Not to cancel bond, except as provided for in W.S. 35-11-504 or where the director gives prior written approval of a good and sufficient replacement surety with transfer of the liability that has accrued against the operator on the permit area;

(II) To be jointly and severally liable with the permittee;

(III) To provide immediate written notice to the director and operator once it becomes unable or may become unable due to any action filed against it to fulfill its obligations under the bond.

(ii) The provisions applicable to cancellation of the surety's license in W.S. 35-11-504 shall also apply if for any other reason the surety becomes unable to fulfill its obligations under the bond. Upon such occurrence the operator shall provide the required notice. Failure to comply with this provision shall result in suspension of the permit.

(c) Federally insured certificate of deposit: The director shall not accept an individual certificate of deposit in an amount in excess of \$100,000 or the maximum insurable amount as determined by the FDIC or the Federal Savings and Loan Insurance Corporation. Such certificates of deposit shall be made payable to the department both in writing and upon the records of the bank issuing these certificates. The director shall require the banks

issuing these certificates to waive all rights of set off or liens against the certificates. The bond amount may be calculated to include any amount which would be deducted as a penalty for payment before maturity.

(d) Government-backed securities: In lieu of a bond, the operator or its principal may deposit government securities registered solely in the department's name and backed by the full faith and credit of the United States.

(e) Cash: In lieu of a bond, the operator or its principal may deposit cash in a bank account in the department's name.

(f) Letters of credit:

(i) Letters of credit shall be subject to the following conditions:

(A) The letter shall be irrevocable during its term, which shall coincide with the annual bonding period. The director may approve the use of letters of credit as security in accordance with a schedule approved with the permit. Any bank issuing a letter of credit shall notify the director in writing at least ninety (90) days prior to the maturity date of such letter or the expiration of the letter of credit agreement. Letters of credit utilized as security in areas requiring continuous bond coverage shall be collected by the director if not replaced by other suitable evidence of financial responsibility at least thirty (30) days before the expiration date of the letter of credit agreement;

(B) The letter must be payable to the department in part or in full upon demand and receipt from the director of a notice of forfeiture issued in accordance with W.S. 35-11-504;

(C) The letter shall not be in excess of 10 percent (10%) of the bank's capital surplus account as shown on a balance sheet certified by a Certified Public Accountant;

(D) The director shall only accept bank letters of credit issued in accordance with W.S. 13-3-402;

(E) The letter of credit shall provide that:

(I) The bank will give written notice within three (3) working days to the permittee and the director of any notice received or action filed alleging the insolvency or bankruptcy of the bank, or alleging any violations of regulatory requirements which could result in suspension or revocation of the bank's charter or license to do business,

(II) In the event the bank becomes unable to fulfill its obligations under the letter of credit for any reason, written notice shall be given immediately to the permittee and the director, and

(III) Upon the incapacity of a bank by reason of bankruptcy, insolvency, or suspension or revocation of its charter or license, the permittee shall be deemed to be without performance bond coverage in violation of the act. The director shall issue a notice of violation against any operator who is without bond coverage, specifying a reasonable period to replace bond coverage, not to exceed sixty (60) days. During this period the director or his or her designated representative shall conduct weekly inspections to ensure continuing compliance with other permit requirements, the regulations and the act. If the notice is not abated in accordance with the schedule, a cessation order shall be issued.

(ii) Agent for service of process: The letter may only be issued by a bank organized to do business in the U.S. which identified by name, address, and telephone number an agent upon whom any process, notice or demand required or permitted by law to be served upon the bank may be served. Letters of credit from U.S. branches of foreign banks are not acceptable.

(A) If the bank fails to appoint or maintain an agent in this state, or whenever any such agent cannot be reasonably found, then the Wyoming Secretary of State shall be an agent for such bank upon whom any process, notice or demand may be served for the

purpose of this chapter. In the event of any such process, the Wyoming Secretary of State shall immediately cause one copy of such process, notice or demand to be forwarded, by certified or registered mail to the bank at its principle place of business. The Wyoming Secretary of State shall keep a record of all processes, notices, or demands served upon him or her under this paragraph, and shall record therein the time of such service and his or her action with reference thereto;

(B) Nothing herein contained shall limit or affect the right to serve any process, notice or demand required or permitted by law to be served upon the bank in any other manner now or hereafter permitted by law.

#### Section 5. Bond or Other Forms of Financial Assurance Release.

(a) Any bond or other form of financial assurance may be canceled by the surety only after ninety (90) days written notice to the director, and upon receipt of the director's written consent, which may be granted only when the requirements of the bond have been fulfilled.

(b) When the director determines that the violation has been remedied or the damage abated, the director shall release that portion of the bond or financial assurance instrument being held under W.S. 35-11-504(a). When the director determines that closure activities have been successfully completed at any regulated facility, the director shall release that portion of the bond or financial assurance being held to guarantee performance of activities specified in W.S. 35-11-504(a). The remaining portion of the bond or financial assurance shall be held for a period of not less than thirty (30) years after the date of facility closure, or so long thereafter as necessary to assure proper performance of any post-closure and corrective activities specified in W.S. 35-11-504(a) unless the post-closure period is terminated at an earlier date under Chapter 2, Section 7(b).

(c) Release of the owner or operator from the closure financial assurance requirements of this chapter: Within sixty (60) days after receiving certification from the owner or operator that closure has been accomplished

in accordance with the closure plan and the provisions of these regulations, the director shall verify that proper closure has occurred. Unless the director has reason to believe that closure has not been in accordance with the closure plan, the director shall notify the owner or operator in writing that the owner or operator is no longer required to maintain financial assurance for closure of the particular facility. Such notice shall release the owner or operator only from the requirements for financial assurance for closure of the facility; it does not release the owner or operator from legal responsibility for meeting the closure or post-closure standards. If no written notice or termination of financial assurance requirements or failure to properly perform closure is received by the owner or operator within sixty (60) days after certifying proper closure, the owner or operator may petition the director for an immediate decision in which case the director shall respond within ten (10) days after receipt of such petition.

(d) Release of the owner or operator from the post-closure financial assurance requirements of this chapter: Within sixty (60) days of the director's determination under Chapter 2, Section 7(b), that the facility has been adequately stabilized, the director shall notify the owner or operator in writing that the owner or operator is no longer required to maintain financial assurance for the post-closure care of the regulated facility. Such notice shall release the owner or operator only from the requirements for financial assurance for post-closure care of the facility; it does not release the owner or operator from legal responsibility to take corrective action as necessary to protect public health or the environment from releases from the facility.

Section 6. Bond or Other Forms of Financial Assurance Recalculations. Financial assurance amounts will be recalculated on a yearly basis.

Section 7. Bond or Other Forms of Financial Assurance Forfeiture.

(a) Bond or other financial assurance forfeiture proceedings shall occur only after the director provides

notice to the operator and any surety in accordance with W.S. 35-11-504(h) that a violation exists and the council has approved the request of the director to begin forfeiture proceedings.

(b) With the approval of the council the director may:

(i) Expend forfeited funds to remedy and abate the circumstances with respect to which any financial assurance was provided; and

(ii) Expend funds from the trust and agency account under W.S. 35-11-504(a) to remedy and abate any immediate danger to human health, safety and welfare.

(c) If the forfeited bond or other financial assurance instrument is inadequate to cover the costs to carry out the activities specified in W.S. 35-11-504(a) or in any case where the director has expended trust and agency account monies, the attorney general shall bring suit to recover the cost of performing the activities where recovery is deemed possible.

Section 8. Incapacity of Institution Issuing Financial Assurance. An owner or operator who fulfills the requirements of Section 3 of this chapter by obtaining a surety bond or a certificate of deposit or irrevocable letter of credit will be deemed to be without the required financial assurance in the event of bankruptcy, insolvency or a suspension or revocation of the license or charter of the issuing institution. The owner or operator must establish other financial assurance within sixty (60) days of such event.

Section 9. Closure and Post-Closure Account for Municipally-Owned Solid Waste Disposal Facilities.

(a) Applicability: This section is applicable to municipally-owned or operated solid waste landfills regulated under Chapter 2 of these rules and regulations electing to participate in the state guarantee trust account [the account] provided under W.S. 35-11-515. Such facilities shall be known as participating facilities.

(b) Initial requirements: The requirements of this paragraph apply to participating facilities upon their initial election to participate in the account. The requirements of this paragraph also apply to participating facilities upon the, fourth and subsequent four-year anniversaries, following the initial election to participate in the account. Each facility shall:

(i) Either prepare a closure and post-closure plan complying with Section 3(b)(ii), and containing a closure and post-closure cost estimate complying with Section 3(e)(i) and (ii) of this chapter, or calculate the facility closure and post-closure costs using a standard cost estimate prepared by the director; and

(ii) Calculate the remaining usable disposal capacity of the facility, expressed as years, using information from the facility permit application; and

(iii) Calculate the annual amount to be paid to the account using the following procedure:

(A) Calculate three percent (3%) of the sum of closure and post-closure costs using the following formula:

3% of the sum of closure and post-closure costs =  
(0.03(Closure cost - the operator's accumulated net assets earmarked for payment of the operator's closure costs)) + (0.03(Post-closure cost - the operator's accumulated net assets earmarked for payment of the operator's post-closure costs))

(I) The facility operator shall account for closure and post-closure liabilities and costs in accordance with Generally Accepted Accounting Principles and certify to the earmarking of the accumulated net assets, subject to audit.

(B) Calculate the balance due to the account by deducting the total of previous payments to the account from 3% of the sum of closure and post-closure costs.

Balance due = 3% of the sum of closure and post-closure costs - the total of previous payments to the account

(C) Calculate annual payments to the account by dividing the balance due by the years of remaining disposal capacity.

Annual payment = Balance due / years of remaining disposal capacity

(iv) For existing Type I facilities, the owner shall pay the amount in paragraph (b)(iii) of this section to the department no later than April 9, 1997 (no later than October 9, 1997 for existing Type II facilities). Existing nonparticipating Type I facilities making an initial election to participate in the account after April 9, 1997 (after October 9, 1997 for existing Type II facilities), shall pay the amount in paragraph (b)(iii) of this section prior to receiving approval from the director to terminate any alternate form of financial assurance approved under Section 3(d) of this chapter;

(v) For new Type I facilities permitted after April 9, 1997 (after October 9, 1997 for new Type II facilities), the owner shall pay the amount in paragraph (b)(iii) of this section prior to the issuance of a permit from the director.

(c) Subsequent requirements: Each facility shall pay the amount specified in paragraph (b)(iii) of this section to the director no later than the anniversary dates following the initial election to participate in the account.

(d) Estimating closure and post-closure costs:

(i) Closure and post-closure costs may be calculated using a site specific cost estimate prepared by the operator or a standard cost estimate prepared by the director.

(e) Refunds from the account for closure guarantees: Following certification of closure by a registered professional engineer in accord with the requirements of

Chapter 2, Section 7, the owner may apply to the director for a refund of that portion of the annual fee paid by the owner to the account for closure guarantee costs. If the director determines that closure activities have been adequately completed, the department shall, within thirty 30 days, approve a refund from the account equal to ninety percent (90%) of the total amount paid by the owner, less any expenditures from the account under W.S. 35-11-515(k) which have not been recovered under W.S. 35-11-515(m).

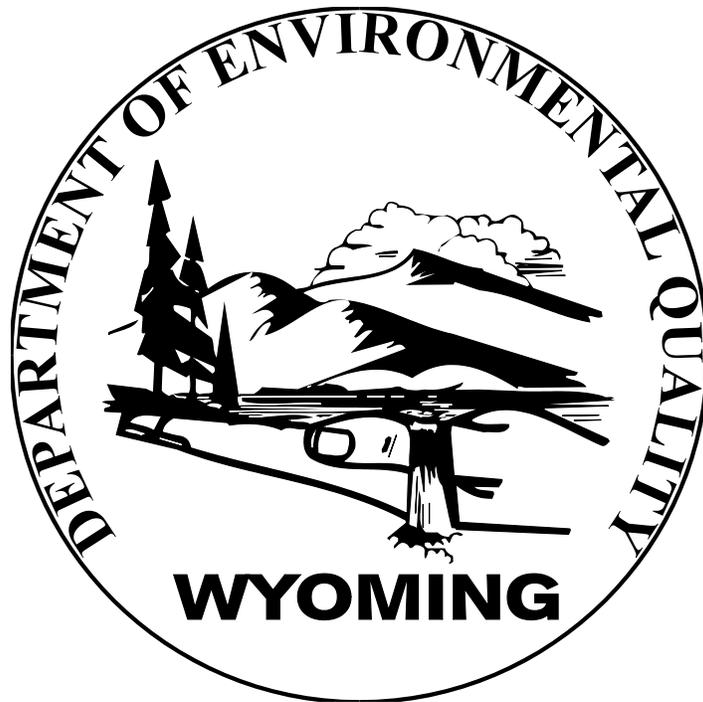
(f) Refunds from the account for post-closure guarantees: Following certification of the proper completion of the post-closure period by a registered professional engineer in accord with the requirements of Chapter 2, Section 7, the owner may apply to the director for a refund of that portion of the annual fee paid by the owner to the account for post-closure guarantee costs. The director shall, within 30 days of the administrator's determination that the facility has been adequately stabilized in accord with the requirements of Chapter 2, Section 7(b), approve a refund from the account equal to ninety percent (90%) of the total amount paid by the owner, less any expenditures from the account under W.S. 35-11-515(k) which have not been recovered under W.S. 35-11-515(m).

(g) Election to withdraw as a participating facility: Upon the election by a facility owner to withdraw from participation in the account, the owner may apply to the director for a refund of the closure and post-closure annual fees paid to the account. The director shall, within thirty (30) days, approve a refund from the account equal to ninety percent (90%) of the total amount paid by the owner, less any expenditures from the account under W.S. 35-11-515(k) which have not been recovered under W.S. 35-11-515(m). Prior to the director approving a refund for a withdrawing facility, the facility owner shall demonstrate compliance with the financial assurance requirements of this chapter as specified in Section 3(d).

(h) Use of a combination of financial assurance mechanisms: An owner may elect to participate in the account for purposes of demonstrating compliance only with the closure cost financial assurance requirement, only

with the post-closure cost financial assurance requirement, or both. Any owner electing to participate in the account only for the purposes of satisfying the closure or post-closure cost financial assurance requirement shall use another financial assurance mechanism as specified in Section 3(d) of this chapter to complete his or her obligation to demonstrate adequate financial assurance for both closure and post-closure costs.

(i) Expenditures from the account: The director may authorize expenditures from the account if the facility owner, after receiving a notice of violation and order directing the performance of closure or post-closure obligation under this chapter or Chapter 2 of these rules and regulations, has failed to adequately perform such obligation. The director shall provide in any such order that failure to perform the closure or post-closure obligation will result in the director's authorizing an expenditure from the account. The amount to be expended shall be specified by the director in the order. The availability of an opportunity to appeal the order under W.S. 35-11-701(c) shall be considered the owner's opportunity to appeal the amount to be expended, under W.S. 35-11-515(k).



**SOLID WASTE  
RULES AND REGULATIONS**

**Chapter 1**

**Strikethrough/Underline Version**

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## CHAPTER 1

### GENERAL PROVISIONS

#### Section 1. In General.

(a) Authority: The authority for the rules and regulations promulgated in this chapter is the Wyoming Environmental Quality Act, W.S. 35-11-101 et seq. Specific sections of the act that provide authority for this regulation include W.S. 35-11-102, 35-11-109 and Article 5, Solid Waste Management, 35-11-501 et seq.

(b) Applicability: The rules and regulations contained herein shall apply to any person, government or governmental subdivision, corporation, organization, partnership, business trust, association, district or other entity involved in any aspect of the management of solid waste. These regulations are effective immediately upon filing with the Secretary of State.

(c) Objective: The objective of these rules and regulations is to provide minimum standards for the management of solid waste in order to carry out the policy and purpose of the Wyoming Environmental Quality Act, W.S. 35-11-102.

(d) Severability: If any section or provision of these regulations, or the application of that section or provision to any person, situation, or circumstance is adjudged invalid for any reason, the adjudication does not affect any other section or provision of these regulations or the application of the adjudicated section or provision to any other person, situation, or circumstance. The Environmental Quality Council declares that it would have adopted the valid portions and applications of these regulations without the invalid part, and to this end the provisions of these regulations are declared to be severable.

#### (e) Definitions:

(i) For the purpose of these rules and regulations, unless the context otherwise requires:

"Act" means the Wyoming Environmental Quality Act, W.S. 35-11-101 et seq.

"Applicant" means that person, as defined in the act, submitting an application to the administrator for a permit for a solid waste management facility, who shall be:

For a city owned facility, the city,

For a county owned facility, the county,

For a facility owned by any other public entity, that public entity,

For an individual, the individual,

For a corporation, the corporation,  
and

For a sole proprietorship or partnership, the partnership or proprietorship.

"Aquifer" means, in relation to all solid waste facilities except municipal solid waste landfills, a geologic formation, group of formations, or portion of a formation capable of yielding significant quantities of groundwater to wells or springs. For municipal solid waste landfills, "aquifer" means an underground geologic formation:

Which has boundaries that may be ascertained or reasonably inferred;

In which water stands, flows or percolates;

Which is capable of yielding to wells or springs significant quantities of groundwater that may be put to beneficial use; and

Which is capable of yielding to wells or springs which produce a sustainable volume of more than

one-half (1/2) gallon of water per minute.

"Asbestos-containing solid wastes" or "asbestos" means solid wastes containing greater than one percent (1%) by weight asbestos in any of the asbestiform varieties of: chrysotile (serpentine), amosite (cummingtonite, grunerite), crocidolite (riebeckite), anthophyllite, actinolite, or tremolite, and which may be considered friable asbestos.

"Buffer zone" means that portion of the solid waste management facility which is not used for waste management activities but is reserved for the placement and operation of monitoring equipment or for preventing public access during specific waste disposal events, such as the disposal of friable asbestos. The fire lane may be within the buffer zone.

"Cell" means compacted solid wastes that are enclosed by natural soil or other cover material within a trench, unit, or area-fill in a land disposal facility.

"Classification" means the specific type of solid waste management facility, as determined by the administrator, based upon waste type and volume of waste received.

"Clean wood" means untreated wood which has not been painted, stained, or sealed. Clean wood does not include treated railroad ties, treated posts, paper, or construction/demolition wastes containing nonwood materials.

"Closed facility" means a regulated facility at which operations have been properly terminated in accord with an approved facility closure plan on file with the Solid and Hazardous Waste Division or the Water Quality Division and complying with all applicable regulations and requirements concerning its stabilization.

"Closure" means the act of securing and stabilizing a regulated facility pursuant to the requirements of these regulations.

"Closure period" means the period of time during which a facility is completing closure. The closure period begins when the facility ceases receipt of wastes. The closure period ends when the administrator approves certification from a registered professional engineer confirming that the provisions of the closure plan have been carried out and that the facility has been closed in compliance with the closure standards specified in these rules and regulations.

"Collateral" means as related to self bonding the actual or constructive deposit, as appropriate, with the director of one or more of the following kinds of property to support a self bond:

A perfected, first-lien security interest in real property located within the State of Wyoming, in favor of the Wyoming Department of Environmental Quality which meets the requirements of Chapter 7,

Securities backed by the full faith and credit of the United States government or state government securities acceptable to the director. These securities must be endorsed to the order of, and placed in the possession of the director, or

Personal property located within the state, owned by the operator, which in market value exceeds \$1 million per property unit;

"Commercial solid waste management facility" means any facility receiving a monthly average greater than five hundred (500) short tons per day of unprocessed household refuse or mixed household and industrial refuse for management or disposal;

"Comparative balance sheet" means item amounts from a number of the operator's successive yearly balance sheets arranged side by side in a single statement;

"Comparative income statement" means an operator's income statement amounts for a number of successive yearly periods arranged side by side in a

single statement.

"Complete application" means a permit application that the administrator has determined to contain all the information required to be submitted by the regulations, in sufficient detail to allow a technical review of the information to commence.

"Composite liner" means a system consisting of two (2) components; the upper component must consist of a minimum thirty (30) mil flexible membrane liner (FML) and the lower component shall consist of at least a two (2) foot layer of compacted soil with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  centimeters per second. A flexible membrane liner components consisting of high density polyethylene (HDPE) shall be at least sixty (60) mil thick. The flexible membrane liner component shall be installed in direct and uniform contact with the compacted soil component.

"Construction/demolition landfill" means a solid waste management facility that accepts only inert construction waste, demolition waste, street sweepings and/or brush. This does not include garbage, liquids, sludges, paints, solvents, putrescibles, dead animals, friable asbestos, and hazardous or toxic wastes.

"Construction/demolition waste" includes but is not limited to stone, wood, concrete, asphaltic concrete, cinder blocks, brick, plaster and metal.

"Container" means any portable device in which a material is stored, transported, treated, disposed of or otherwise handled.

"Corrective action" means all actions necessary to eliminate the public health threat or environmental threat from a release to the environment of pollutants from an operating or closed regulated facility and to restore the environmental conditions as required;

"Cost-effective" means the selection of alternative responses taking into account total short-term and long-term costs of those responses including the costs of operation and maintenance for the entire activity, the

presence of naturally occurring hazardous or toxic substances and current or potential uses of the natural resources impacted, as determined by the administrator;

"Cover material" means soil or other suitable material that is used to cover compacted solid wastes in a land disposal facility.

"Current assets" means cash and assets that are reasonably expected to be realized in cash or sold or consumed within one (1) year or within the normal identified operating cycle of the business;

"Current liabilities" means debts or other obligations that must be paid or liquidated within one (1) year or within the normal identified operating cycle of the business. This shall also include dividends payable on preferred stock within one (1) quarter if declared, or one (1) year if a pattern of declaring dividends each quarter is apparent from the business' past practices;

"Decommissioning" means removing all liquids and accumulated sludges, and cleaning a storage tank for its intended reuse or disposal;

"Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any waste material into or on any land or water so that such waste material or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

"Existing facility" means any facility that was receiving solid wastes on or before September 13, 1989.

"Existing unit" means any municipal solid waste landfill unit receiving solid waste as of October 9, 1993.

"Facility" means the total contiguous area described in the permit application and which is occupied by any solid waste management area, unit, site, process, or system and the operation thereof including, but not limited to, equipment, buildings, solid waste treatment,

storage, transfer, processing, and disposal areas, buffer zones, monitor well systems, fire lanes, working area litter and access fences, systems for the remediation of releases to the environment, and perimeter access control fences. The term "facility" does not include contiguous or noncontiguous lands which may be owned or leased by the applicant which are not disturbed by solid waste management operations and which are external to the contiguous area occupied by the solid waste management area, unit, site, process, or system.

"Farming and ranching operation" means agricultural operations whose principal function is the growing of crops and the raising of livestock, but does not include concentrated animal feeding operations involving more than one-thousand (1,000) animal units. Concentrated animal feeding operations are facilities where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period and crops, vegetation forage growth, or post-harvest residues are not sustained over the normal growing season over any portion of the lot or facility. One-thousand (1,000) animal units equals 1,000 slaughter and feeder cattle, 700 mature dairy cattle, 2,500 swine each weighing over 55 pounds, 500 horses, 10,000 sheep or lambs, 55,000 turkeys, 30,000 laying hens or broilers, or 5,000 ducks.

"Final cover" means cover material that is used to completely cover the top of a land disposal facility and includes compacted soils, drainage layers, synthetic membranes, soil-cement admixtures, and topsoils.

"Fire lane" means an area which does not contain combustible materials, including vegetation, and which can be utilized to provide access to firefighting equipment.

"Fixed assets" means plants and equipment.

"Floodplain" means low land and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, that are inundated by the 100-year flood.

"Friable asbestos", means asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure, and includes previously nonfriable asbestos after such previously nonfriable asbestos becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.

"Garbage" means any putrescible solid or semi-solid animal and/or vegetable waste material resulting from the handling, preparation, cooking, serving and consumption of food.

"Green waste" means organic plant materials, such as yard trimmings, grass clippings, house and garden plants, tree trimmings, and brush. Green waste does not include other putrescible waste including, but not limited to food waste, animal waste, and manure.

"Groundwater" means, in relation to all solid waste facilities except municipal solid waste landfills, water below the land surface in a saturated zone of soil or rock. For municipal solid waste landfills, "groundwater" means any water, including hot water and geothermal steam, under the surface of the land or the bed of any stream, lake, reservoir or other body of surface water, including water that has been exposed to the surface by an excavation such as a pit which:

Stands, flows or percolates; and

Is capable of being produced to the ground surface in sufficient quantity to be put to beneficial use.

"Hazardous wastes" means those wastes that are defined as hazardous wastes in Wyoming Department of Environmental Quality Hazardous Waste Rules and Regulations, Chapter 2, Identification and Listing of Hazardous Waste.

"Incineration" means the controlled process by which combustible solid wastes are burned and altered to noncombustible gases and other residues. A solid waste incineration facility is considered to be a solid waste management facility.

"Incorporated city or town" shall mean a "first class city" or a "town" as defined in W.S. 15-1-101(a).

"Industrial landfill" means a solid waste management facility utilizing an engineered method of land disposal primarily for industrial solid waste.

"Industrial solid waste" means solid waste resulting from, or incidental to, any process of industry, manufacturing, mining or development of any agricultural or natural resources.

"Irrevocable letter of credit" means an engagement, however named or described, by a bank made at the request of a customer (the operator and/or financially responsible parties for a permit or site), that the issuer will honor drafts or other demands for payment from the beneficiary (the State of Wyoming) upon compliance with the conditions specified in the letter of credit. The issuing party (a bank) guarantees that it will not withdraw the credit or cancel the letter before the expiration date. The customer cannot modify, revoke or repeal this letter of credit unless specified by the beneficiary.

"Land treatment facility" means a treatment facility or part of a solid waste management facility at which solid waste is applied onto the soil surface;

"Landfarm facility" means a facility or part of a facility at which solid wastes are treated and disposed by incorporation into existing soils, and which is subject to a post-closure period;

"Landfill" means a solid waste management facility for the land burial of solid wastes, utilizing an engineered method of controls to avoid creating a hazard to the public health, the environment, plants, or animals.

"Lateral expansion" of a facility means the horizontal enlargement of the boundaries of a solid waste management facility. Lateral expansion of a disposal unit means the horizontal enlargement of the permitted waste

boundaries of a disposal unit.

~~"Leachate" means liquid that is the result of the percolation of fluids through solid waste and which consists of chemicals and microbial waste products from the decomposition of solid waste, in a dissolved or suspended/colloidal state.~~

"Leachate" means liquid that has passed through or emerged from solid waste and contains soluble, suspended or miscible materials removed from such wastes.

"Liabilities" means obligations to transfer assets or provide services to other entities in the future as a result of past transactions.

"Lifetime" for municipal solid waste landfills means the estimated time to fill and close a municipal solid waste landfill, not to exceed twenty-five (25) years.

"Lower explosive limit (LEL)" means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25° Celsius and atmospheric pressure.

"Low hazard and low volume treatment, processing, storage, and transfer facility" means a solid waste management facility which accepts only solid wastes as described in this subsection, ~~and which are:~~ This provision does not apply to facilities whose owner or operator simultaneously owns or operates more than one such solid waste management facility within one (1) mile of each other.

Mobile transfer, treatment, and storage facilities~~.~~

Clean wood waste storage facilities: Facilities storing clean wood waste in storage piles with a combined base surface area larger than 10,000 square feet or containing greater than 100,000 cubic feet of clean wood waste. Clean wood waste at such facilities shall be stored no less than 100 feet from off-site structures, storm water shall be properly managed, and the

pile shall not create a public or private nuisance.

Solid waste transfer, treatment, storage, and processing facilities: Solid waste transfer, treatment, storage, and processing facilities receiving 50 cubic yards or less of solid waste per day and occupying no more than 5 acres, including a twenty foot buffer zone within a fenced facility boundary, which individually or in combination manage no more than ~~managing~~ the specified types and quantities quantities of the following wastes:

~~A solid waste storage or management facility occupying less than 30,000 square feet and used only for the management of less than 500 tons per day of source-separated or presorted p~~Paper, cardboard, plastic, aluminum cans, glass, and metal, or other nonputrescible household municipal solid wastes which may be specifically authorized by the administrator, for the primary purposes of being transferred to a recycling facility or beneficial reuse in a manner approved by the administrator. This provision applies to the sorting, shredding, grinding, crushing, baling, and storage of these wastes prior to transfer to a recycling facility or approved beneficial reuse site; and

~~Less than 5,000 gallons of used oil~~ or used oil generated by do-it-yourself used oil generators, if the used oil is ~~being~~ stored to be recycled, reclaimed, or reused; and

~~Less than 5,000 gallons of used antifreeze, if the used antifreeze is being~~ stored to be recycled, reclaimed, or reused; and

~~Less than 51,000 scrap tires~~ stored in compliance with standards in Chapter 8 of these rules and regulations, if the scrap tires are ~~being~~ stored to be recycled, reclaimed, ~~or~~ reused, or are destined for disposal at a permitted facility; and

Green waste and clean wWood waste storage piles; and

Compost piles for green waste and

manure operated in a manner that does not create odors, constitute a nuisance, or attract vectors; and

~~Storage of less than 15,000 empty~~  
used drums; and

Household hazardous waste (HHW) collected no more frequently than quarterly collection days, provided that the HHW collected is removed from the site and transported to a permitted facility within thirty (30) days of receipt; and

50 cubic yards of electronic waste stored in containers; and

500 lead acid batteries, if the batteries are stored in an upright position and are not leaking, for the purpose of transfer to a recycling facility; and

100 cubic yards of construction and demolition waste stored in containers; and

~~A solid waste management facility used for the management of 40 cubic yards or less of municipal solid waste per day, and having 120~~<sup>150</sup> ~~cubic yards or less total container capacity for~~ of mixed solid wastes stored in containers. Animal mortality managed at low hazard and low volume solid waste transfer, treatment, storage, and processing facilities shall be managed in mixed municipal solid waste or separate containers. ~~This definition does not apply to facilities whose owner or operator simultaneously owns or operates more than one such solid waste management facility within one (1) mile of each other;~~

Commercially operated used oil management facilities: Used oil collection centers, aggregation points, transfer facilities, processors, re-refiners, burners, and used oil fuel marketers that store greater than 10,000 gallons of used oil to be recycled or burned for energy recovery, subject to the used oil management requirements contained in Chapter 12 of the Wyoming Hazardous Waste Rules and Regulations.

Facilities storing waste, other than construction/demolition waste, for transfer to a recycling facility: Facilities occupying no more than 10 acres and used only for the transfer, treatment, and storage of less than 500 tons received per day of paper, cardboard, plastic, aluminum cans, glass, metal, clean wood, and other nonputrescible municipal solid wastes which may be specifically authorized by the administrator, for the primary purposes of transfer to a recycling facility or beneficial reuse in a manner approved by the administrator. Unless all waste management occurs indoors, the facility shall have a twenty foot buffer zone/fire lane within a fenced facility boundary. This provision applies to the sorting, shredding, grinding, crushing, baling, and storage of these wastes prior to transfer to a recycling facility or approved beneficial reuse site. This provision does not apply to scrap tire or electronic waste management facilities.

Facilities storing construction/demolition waste for transfer to a recycling facility: Facilities occupying no more than 10 acres and used only for the transfer, treatment, and storage of less than 500 tons received per day of construction/demolition waste authorized by the administrator, for the primary purposes of transfer to a recycling facility or beneficial reuse in a manner approved by the administrator. Unless all waste management occurs indoors, the facility shall maintain a twenty foot buffer zone/fire lane separating waste from a fenced facility boundary. This provision applies to the sorting, shredding, grinding, crushing, baling, and storage of these wastes prior to transfer to a recycling facility or approved beneficial reuse site. This provision applies only if all waste management activities occur either indoors or outdoors in containers. This provision does not apply to scrap tire or electronic waste management facilities.

~~Transfer, treatment, storage and processing facilities which manage only low hazard and low volume solid wastes not including~~ Facilities not considered low hazard and low volume: Transfer, treatment, storage, and processing facilities managing wastes or materials having or exhibiting one or more of

the following criteria or characteristics are not low hazard and low volume waste management facilities.

Exceptions may be granted by the administrator based on consideration of concentration and volumes of wastes to be ~~disposed~~managed:

Toxicity,

Carcinogenicity,

Ignitability,

Flammability,

Explosivity,

Instability,

Corrosivity,

Incompatibility,

Special wastes as defined in this subsection,

Medical/infectious wastes,

PCB-containing wastes,

Excluded hazardous wastes as defined at 40 CFR part 261, or Chapter 2 of the Department's Hazardous Waste rules and regulations,

Wastes that have the potential to create odor, vector, dust, or other nuisances, or

Wastes that in the evaluation of the administrator have a significant potential to impact public health and/or the environment, unless the operator of a proposed facility can demonstrate by submittal of a waste analysis and/or characterization plan that the waste treatment, processing, storage, or transfer activity can be considered a low hazard and low volume waste management activity consistent with the act.

"Major Change" means a change to any solid waste management facility location, design or construction, or to any operating, monitoring, closure or post-closure activities, involving one or more of the following items:

The total permitted volumetric capacity of the facility is to be increased by more than five percent (5%);

The facility classification will change;

The facility service area or source of waste will change and cause the original daily tonnage of waste received to increase by more than five percent (5%);

The facility may begin to accept for treatment, storage, or disposal one or more of the special wastes regulated under Chapter 8 of these rules and regulations;

The effectiveness of any liner, leachate collection or detection system, gas detection or migration system, or pollution control or treatment system may be changed; or

The facility modification will, in the judgement of the administrator, be likely to alter the fundamental nature of the facility's activities or cause noncompliance with any applicable facility standard.

"Mixed household and industrial refuse" means any mixture of municipal solid wastes, industrial solid wastes, or sludge.

"Mixed solid waste" means municipal solid waste and industrial solid waste.

"Mobile transfer, treatment and storage facility" means a facility which is mobilized to conduct transfer, treatment or storage of a solid waste at or near the point of generation.

"Monitoring" means all procedures and

techniques used to systematically collect, analyze and inspect data on operational parameters of the facility or on the quality of the air, groundwater, surface water and soil.

"Municipal solid waste" means solid waste resulting from or incidental to residential, community, trade or business activities, including garbage, rubbish, ashes, street sweepings, dead animals, tires, abandoned automobiles and all other solid waste other than industrial or hazardous waste.

"Municipal solid waste landfill" (MSWLF) means a solid waste management facility for the land burial of municipal solid waste that utilizes an engineered method of controls to avoid creating a hazard to the public health, the environment, plants, or animals.

"Municipal solid waste landfill unit" means a discrete area of land or an excavation that receives municipal solid waste and that is not a land application unit, surface impoundment, injection well, or waste pile. A MSWLF unit may also receive other types of Resource Conservation and Recovery Act (RCRA) Subtitle D waste such as commercial solid waste, nonhazardous sludge, small quantity generator waste, and industrial solid waste. Such a landfill unit may be publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit, or a lateral expansion of an existing MSWLF unit. A construction and demolition landfill that receives residential lead-based paint waste and does not receive any other household waste is not a MSWLF unit.

"Municipality" means a city, town, county, district, association, or other public body.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"New facility" means:

Any facility that did not receive solid waste on or before September 13, 1989; or

Any modification or lateral expansion

of an original permit boundary for the purpose of increasing capacity and/or site life by more than five percent (5%). An incidental facility boundary enlargement for the development of, but not limited to fire lanes, buffer zones, surface water diversion systems, and monitoring systems which are not in conflict with local zoning, land use, and/or land ownership is not considered to be a new facility.

"New municipal solid waste landfill unit" means any municipal solid waste landfill unit that did not receive waste prior to October 9, 1993.

"Occupied dwelling house" means a permanent building or fixed mobile home that is currently being used on a permanent or temporary basis for human habitation.

"100-year floodplain" means a flood that has a 1-percent (1%) or greater chance of recurring in any given year or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period.

"On-site decommissioning" means decommissioning performed within a facility's property boundary on petroleum storage tank(s) which are being proposed to be removed from the ground or abandoned in-place within the facility's property boundary.

"Open burning" means uncontrolled burning of solid waste in the open.

"Open dump" means an uncontrolled solid waste management facility at which solid wastes are placed on the land in such a manner that they present a real or potential hazard to public health and the environment. Open dump includes any solid waste management facility subject to the permitting requirements of these rules and regulations which does not have a current, valid permit.

"Operator" means the applicant who has been granted a permit, who may manage and operate the solid waste management facility or who may hire another person, who shall be known as the solid waste manager, for these responsibilities.

"Parent corporation" means a United States corporation which owns or controls the applicant.

"Person" means an individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, municipality or any other political subdivision of the state, or any interstate body or any other legal entity.

"Petroleum-contaminated soils" means solid waste consisting of any natural or manmade soil or rock material into which petroleum product has been added, excluding hardened asphalt rubble.

"Petroleum product" means any crude oil or any liquid petroleum fraction including but not limited to gasoline, diesel fuels, and used and unused motor oils.

"Pile" means any noncontainerized accumulation of solid, nonflowing waste that is used for treatment or storage.

"Plans" means maps, specifications, drawings and narrative description, prepared to describe the solid waste management facility and its operation.

"Post-closure period" means the period of time during which a closed facility is maintained and monitored. The post-closure period begins when the administrator approves certification from a registered professional engineer confirming that the provisions of the closure plan have been carried out and that the facility has been closed in compliance with the closure standards specified in these rules and regulations. The post-closure period ends when the administrator determines, upon petition by the operator, that the facility has been adequately stabilized and that the environmental monitoring or control systems have demonstrated that the facility closure is protective of public health and the environment consistent with the purposes of the act.

"Principal officer" means an officer

described in the bylaws of a corporation or appointed by the board of directors in accordance with the bylaws who serves at least at the level of vice president.

"Private industrial solid waste disposal facility" means any industrial solid waste disposal facility used solely for the disposal of solid waste generated by the owner of the facility; wastes are not transported over public roadways for delivery to the facility; and access by persons other than employees of the facility owner is restricted.

"Processing plant" means a solid waste management facility used or designed to transfer, shred, grind, bale, compost, salvage, separate, reclaim or provide other treatment of solid wastes.

"Release" includes, but is not limited to, any spilling, leaking, pumping, pouring, emptying, emitting, discharging, dumping, addition, escaping, leaching, or unauthorized disposal of any oil or hazardous substance which enters, or threatens to enter, waters of the state.

"Routine cover" means cover material that is applied to the top and side slopes of compacted solid wastes at the end of each operating day.

"Salvaging" means the controlled removal by the operator or his or her agent of solid waste from a solid waste management facility for the purpose of reuse.

"Sanitary landfill" means a ~~solid waste management facility utilizing an engineered method of land disposal primarily for municipal solid wastes~~ municipal solid waste landfill.

"Scavenging" means the removal by persons other than the operator or his agent of solid wastes from any solid waste management facility.

"Scrap tire" means a tire that is no longer used for its original purpose.

"Seismic impact zone" means an area with a

10 percent (10%) or greater probability that the maximum horizontal acceleration in hard rock, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10g in 250 years.

"Self bond" means an indemnity agreement in a sum certain executed by the permittee and/or the parent company or federal agency guarantor and made payable to the state, with or without separate surety.

"Silviculture waste" means any wood wastes generated during the management and development of forests. This includes but is not limited to all wood wastes that are generated during the operation of a sawmill.

"Sludge" means the accumulated semisolid mixture of solid wastes and water, oils, or other liquids.

"Solid waste" means garbage, and other discarded solid materials, materials, including solid waste materials resulting from industrial, commercial, and agricultural operations, and from community activities, but, unless disposed of at a solid waste management facility, does not include:

Solids or dissolved material in domestic sewerage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial waste water effluents, dissolved materials in irrigation return flows or other common water pollutants;

Liquids, solids, sludges or dissolved constituents which are collected or separated in process units for recycling, recovery or reuse including the recovery of energy, within a continuous or batch manufacturing or refining process; or

Agricultural materials which are recycled in the production of agricultural commodities.

"Solid waste manager" means any person designated by the applicant who has primary responsibility for the daily management and operation of the solid waste management facility.

~~"Solid waste management disposal facility" means any landfill or any incinerator used for the management of wastes generated by persons other than the owner of the incinerator.~~

"Solid waste management facility" means any facility for the transfer, treatment, processing, storage or disposal of solid waste, but does not include:

Lands or facilities subject to the permitting requirements of Article 3 of the act;

Facilities which would have been subject to the permitting requirements of Article 3 of the act if constructed after July 1, 1973;

Any facility described under W.S. 30-5-104(d) (vi) (A) or (B);

Lands and facilities subject to the permitting requirements of Articles 2, 3 or 4 of the act used solely for the management of wastes generated within the boundary of the permitted facility or mine operation by the facility or mine owner or operator or from a mine mouth electric power plant or coal drier;

Lands and facilities owned by a person engaged in farming or ranching and used to dispose of solid waste generated incidental to his or her farming and ranching operations; or

Transport vehicles, storage containers and treatment of the waste containers.

"Solid waste management unit" means a contiguous area of land on or in which solid waste is placed, or the largest area in which there is significant likelihood of mixing solid waste constituents in the same area of a solid waste management facility. Examples of solid waste management units include a surface impoundment at a solid waste management facility, a waste pile, a land treatment area, a municipal, construction/demolition, or industrial landfill ~~cell~~unit, an incinerator, a tank and its associated piping and underlying containment systems

at a solid waste management facility and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

"Solid waste petroleum storage tank" means any underground or aboveground storage tank that has been taken out of service and which contained any substance regulated under Subtitle I of the Resource Conservation and Recovery Act, as amended as of September 23, 1988, including but not limited to storage tanks that have held gasoline, diesel fuels, and used and unused motor oils.

"Special wastes" are those wastes which require special handling as described in Chapter 8 of these rules and regulations.

"State or federal highway" shall mean any road or primary highway designated as a "state highway" by the Wyoming State Highway Commission in accordance with W.S. 24-2-109(a).

"Storage" means the holding of solid waste for a temporary period, at the end of which time the solid waste is treated, disposed of, or stored elsewhere.

"Storage facility" means any facility that stores solid waste for a temporary period, at the end of which time the solid waste is treated, disposed, or stored elsewhere.

"Surface impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments include, but are not limited to holding, storage, settling, and aeration pits, ponds and lagoons.

"Tangible net worth" means net worth minus intangibles such as goodwill, patents or royalties.

"Tank" means a stationary device designed to contain an accumulation of waste that is constructed primarily of nonearthen materials (e.g., wood, concrete, steel, plastic) that provide structural support and integrity.

"Topsoil" means all surface soil usually including the organic layer in which plants have most of their roots, or in the case where no topsoil is present, the top six (6) inches of in-place native material.

"Transfer" means the temporary holding of solid waste pending transportation of the solid waste for treatment, storage, and/or disposal.

"Transfer facility" means any solid waste transportation related facility including loading docks, parking areas, storage areas and ancillary features.

"Treatment" means any method, technique, or process designed to change the physical, chemical, or biological character or composition of any solid waste so as to recover energy or material resources from the waste or so as to render it safer to transport, store, or dispose of, or to make it amenable for recovery, use, or storage, or for reduction in volume. Treatment includes but is not limited to baling, chipping, composting, distilling, incinerating, processing, reconditioning, recovering, recycling, rerefining, reclaiming, and shredding.

"Treatment facility" means any facility that treats solid waste. Types of treatment facilities include but are not limited to solid waste incinerators, tire shredding/chipping facilities, tire pyrolysis plants, solid waste shredding or baling facilities, drum and barrel reconditioning/recycling facilities, composting facilities, and facilities used to distill, rerefine, recover, recycle, or incinerate used antifreeze, oils or solvents.

"Type I landfill" means a ~~sanitary~~municipal solid waste landfill which is not a Type II landfill.

"Type II landfill" means a

| ~~sanitary~~ municipal solid waste landfill which:

Accepts for disposal less than twenty (20) tons of municipal solid wastes daily, and has no evidence of existing groundwater contamination from the landfill, and

Serves a community that has no practicable waste management alternatives and the landfill is located in an area that receives less than or equal to twenty-five (25) inches of precipitation annually, and

For the purposes of determining whether a landfill is a Type I or a Type II landfill, operators shall assume that each person served by the solid waste disposal facility generates an average of six and three tenths (6.3) pounds of solid waste per person per calendar day. If local data are available and the administrator approves, the applicant may use an alternate waste generation rate to calculate annual average daily tonnage of municipal solid waste which is received.

"Unprocessed household refuse" means municipal solid wastes which have not been treated, processed, or recycled at a facility subject to the requirements of these rules and regulations.

"Unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the landfill structural components responsible for preventing releases from a landfill. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and karst terranes.

"Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically connected with this aquifer within the facility's property boundary.

"Used antifreeze" means any antifreeze that has been used and as a result of such use is contaminated by physical or chemical impurities. Used antifreeze also includes new antifreeze which has not been used for its

intended purpose but is being discarded.

"Used oil" means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities. Used oil also includes new oil which has not been used for its intended purpose but is being discarded.

"Vadose zone" means the unsaturated zone between the land surface and the water table.

"Vector" means a carrier capable of transmitting a pathogen from one organism to another, including flies, mosquitoes, skunks, or rodents.

"Waste management unit boundary" For the purpose of establishing a relevant point of compliance for municipal solid waste landfills, "waste management unit boundary" means a vertical surface located at the hydraulically downgradient limit of the municipal solid waste landfill unit. This vertical surface extends down to the uppermost aquifer.

"Waste pile" means any noncontainerized accumulation of solid waste used for treatment or storage of solid waste.

"Water table" means the seasonally high surface of groundwater which is subject to atmospheric pressure in an unconfined aquifer. Water table does not mean the piezometric surface of a confined aquifer.

"Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs and similar areas.

"Working face" means that portion of the land disposal site where solid wastes are being deposited and are being spread and compacted prior to the placement of cover materials.

(ii) The singular includes the plural, the plural the singular, and the masculine the feminine or neuter, when consistent with the intent of the act and necessary to effect its purpose.

(f) Permit required for new and existing facilities:

(i) A permit or a one-time or emergency disposal authorization is required for the location, construction, operation or closure of any new or existing solid waste management facility as specified by Chapter 1, Section 5, or by the applicable chapter(s) of these rules and regulations. All facilities shall be located, designed, constructed, operated and closed in accordance with the permit or disposal authorization issued by the director or administrator.

(ii) A permit or disposal authorization ~~is not~~ may not be required for the facilities or activities specified in subsection (1) of this section.

(iii) Any facility that is regulated under more than one of the permitting chapters of these rules and regulations can apply for and receive a single solid waste management permit demonstrating compliance with each of the applicable chapters of these rules and regulations.

(g) Recordkeeping, monitoring and reporting requirements:

(i) Operators of any solid waste management facility, including those operators of open dumps, will be required to establish and maintain monitoring equipment or methods, sample effluent discharges or emissions, or provide such other information as may be reasonably required and specified by the administrator.

(ii) All records required by these rules and regulations shall be maintained by the operator of the facility for a minimum of three (3) years from the date of recording, except for those records required to be kept through the life and post-closure period of the facility as specified in Chapter 2 of these rules and regulations. All records shall be available for inspection and copying

by department personnel during reasonable business hours. Copies of these records shall be submitted to the administrator when requested.

(h) Prohibited acts: The following acts are prohibited:

(i) Open dumping;

(ii) Scavenging and animal feeding at active solid waste management facilities;

(iii) Dumping bulk liquid wastes at solid waste management facilities unless specifically authorized by the administrator;

(iv) Dumping hazardous wastes (other than hazardous wastes generated by residential households) in any facility other than a facility authorized as a hazardous waste disposal facility by these rules and regulations unless specifically authorized by the administrator;

(v) Open burning of any wastes not exempted in Chapter 1, Section 1(1); and

(vi) No solid wastes shall be speculatively accumulated at a facility intended for use as a solid waste management facility without a permit.

(i) Inspections:

(i) Inspections will be made to insure compliance with the standards included in each of the chapters of these rules and regulations. These inspections will consist of:

(A) Preapplication inspections, to evaluate suitability of locations for development of solid waste management facilities;

(B) Preconstruction inspections, to allow the administrator to evaluate planned construction designs for solid waste management facilities;

(C) Construction inspections, to determine if construction of a solid waste management facility is in accordance with plans and specifications for the facility which are contained in the permit application;

(D) Closure, post-closure, and annual operational compliance inspections to evaluate compliance with applicable standards contained in these rules and regulations; and

(E) More frequent routine or complaint-related inspections, at the administrator's discretion.

(ii) Neither advance notice nor a waiver of liability shall be required to be provided by department personnel as a condition of entry to any facility for the purpose of conducting any solid waste management facility compliance inspection under subsection (i)(i) of this section. The operator shall allow department personnel entry to the disposal facility for the purpose of inspection. Department personnel shall be required to obey all safety and other operation requirements as may be required of it's (the waste facility's) own employees.

(iii) The administrator shall provide copies of all inspection reports to the operator following completion of the inspection.

(iv) The inspection requirements for municipal solid waste landfills with lifetime permits are in Chapter 2, Section 5(bb)(iii).

(j) Deficiencies:

(i) Following any inspection by department personnel, the operator will be notified in writing of any deficiencies within thirty (30) days from the date of the inspection.

(ii) The administrator will use conference and conciliation procedures cited in W.S. 35-11-701(c) to establish a plan and schedule to correct the deficiencies. Failure of the operator to implement the plan shall be cause for the director to begin enforcement proceedings under Article 7 (Complaint) or Article 9 (Penalties) of

the act.

(iii) Denial of permit renewal and/or revocation of the facility permit may result from failure to implement corrective actions.

(k) Noncompliance: In the event of noncompliance with the rules and regulations contained herein, the director may seek remedies as prescribed under Article 7 (Complaints) and Article 9 (Penalties) of the Environmental Quality Act.

(l) Exemptions: The administrator may exempt the following from a permit or any requirement to obtain a waste management authorization under these regulations, provided that persons engaged in activities which are otherwise exempted may be required to supply information to the administrator which demonstrates that the act, practice, or facility is exempt, and shall allow entry of department inspectors for purposes of verification of such information:

~~(i) Facilities regulated by the Wyoming Oil and Gas Commission under W.S. 30-5-104(d) (vi) (A) or (B);~~

(ii) Auto salvage yards and scrap metal dealers: Baling of used motor vehicles or scrap metals, and operation of metal smelters regulated by the Air Quality Division and storage for sale or reuse of used motor vehicles, motor vehicle parts, or scrap metals at auto salvage yards or scrap metal dealers as authorized under W.S. 31-13-112(a), provided that for used oil, used antifreeze, tires, and lead acid batteries the following storage accumulation limits are not exceeded:

(A) 1,000 scrap tires, excluding any scrap tires remaining on wheels attached to vehicles;

(B) 5001,000 gallons of used motor oil, if the oil is being stored to be recycled, or to be burned in a ~~used oil-fired space heater which is exempt under this section, or in any device~~ authorized by the Air Quality Division or in an oil-fired space heater, provided that tanks are properly labeled and the heater is designed to have a maximum capacity of not more than 0.5 million btu

per hour, combustion gases are vented to the outside air, and the heater burns only used oil that the owner or operator generates or receives from do-it-yourself oil changers;

(C) 1,200 used lead acid batteries, excluding any used lead acid batteries remaining in vehicles, if the batteries are being stored in an upright position and are not leaking, for the purpose of being transferred to a recycling facility;

(D) 500 gallons of used antifreeze, if the antifreeze is being stored to be recycled, and the owner or operator only stores used antifreeze they generate or receive from do-it-yourself antifreeze changers or other similar sources.

~~(iii) The disposal of waste soil and rock directly connected with mining, subject to the Land Quality Division rules and regulations, and including overburden, reject mineral and mill tailings;~~

~~(ii)v) Single family units or households: The collection, storage and disposal of household wastes generated by a single family unit or household on their own property in such a manner that does not create a health hazard, public or private nuisance, or detriment to the environment;.~~

~~(v) The disposal of sewage waste, municipal wastewater treatment sludges, wastewaters, or bulk liquid waste at facilities, other than solid waste landfills, which are permitted in accord with the Water Quality Division rules and regulations;~~

~~(vi) Open burning of wood, brush, weeds and tree trimmings conducted in compliance with the Air Quality Division rules and regulations;~~

~~(viii) Clean fill: The disposal of clean fill consisting solely of uncontaminated natural soil and rock, hardened asphalt rubble, bricks, and concrete rubble in such a manner that does not create a health hazard, public or private nuisance or detriment to the environment;.~~

(iv) Clean wood waste storage facilities: Facilities storing clean wood waste in storage piles with a base surface area no larger than 10,000 square feet containing no greater than 100,000 cubic feet of clean wood waste. Clean wood waste at such facilities shall be stored no less than 100 feet from off-site structures, storm water shall be properly managed, and the pile shall not create a public or private nuisance.

(viii) De minimis waste management activities: The management of solid wastes, which in the judgement of the administrator, constitute de minimis quantities which are managed in a manner that does not create a health hazard, public or private nuisance, or detriment to the environment;.

~~(ix) Facilities which would have been subject to the permitting requirements of Article 3 (Water Quality) of the act if constructed after July 1, 1973;~~

~~(x) Lands and facilities subject to the permitting requirements of Articles 2 (Air Quality), 3 (Water Quality), or 4 (Land Quality) of the act used solely for the management of wastes generated within the boundary of the permitted facility or mine operation by the facility or mine owner or operator or from a mine mouth electric power plant or coal drier;~~

~~(xi) Lands and facilities owned by a person engaged in farming or ranching and used to dispose of solid waste generated incidental to his or her farming and ranching operation;~~

~~(xii) Transport vehicles, storage containers and treatment of waste in containers;~~

~~(xiii) Scrap tire storage units at permitted landfills which, in the ordinary course of operation, have fewer than 5,000 scrap tires in aboveground storage at any one time. Such landfills are subject to applicable landfill rules;~~

(xivi) Retail business facilities: Retail business facilities which have fewer than 1,000 scrap tires on the premises at any one time;.

(xvii) Facilities that store lead acid batteries: A retail business facility or a solid waste storage or transfer facility used only for the storage or transfer of no more than 1,200 used lead acid batteries for the purpose of transfer to a recycling facility, if the batteries are stored in an upright position and are not leaking any of the following wastes:.

~~(A) No more than 1200 used lead acid batteries, if the batteries are being stored in an upright position and are not leaking, for the purpose of being transferred to a recycling facility, or~~

~~(B) No more than 500 gallons of used oil and 500 gallons of used antifreeze, if the used oil or used antifreeze is being stored to be recycled or reused;~~

(viii) Commercially operated used oil management facilities: Used oil collection centers, aggregation points, transfer facilities, processors, re-refiners, burners, and used oil fuel marketers that store no more than 10,000 gallons of used oil to be recycled or burned for energy recovery, provided the storage tanks are properly labeled, and subject to the used oil management requirements contained in Chapter 12 of the Wyoming Hazardous Waste Rules and Regulations.

(ix) Used oil generators: Used oil generators are subject to the used oil management requirements contained in Chapter 12 of the Wyoming Hazardous Waste Rules and Regulations. Used oil generators that store their own used oil, or used oil received from do-it-yourself used oil generators, for transfer to a used oil recycling facility or burning in an on-site used oil-fired space heater, provided that the tanks are properly labeled and that:

(A) The heater burns only used oil that the owner or operator generates, or used oil received from household do-it-yourself used oil generators; and

(B) The heater is designed to have a maximum capacity of not more than 0.5 million

Btu per hour; and

(C) The combustion gases from the heater are vented to the ambient air.

(xvi) Facilities storing waste , other than construction/demolition waste, for transfer to a recycling facility: A solid waste storage, treatment, or transfer facility occupying ~~less~~no more than ~~10,000 square feet~~one (1) acre and used only for the storage, treatment, or transfer of ~~source-separated or presorted~~ paper, cardboard, plastic, aluminum cans, glass, ~~and metal,~~ clean wood, construction/demolition waste, or and other nonputrescible ~~household~~municipal solid wastes which may be specifically authorized by the administrator, for the primary purposes of transfer to a recycling facility or beneficial reuse in a manner approved by the administrator. Unless all waste management occurs indoors, the facility shall maintain a twenty foot buffer zone/fire lane separating waste from a fenced facility boundary. This exemption applies to the sorting, shredding, grinding, crushing, baling and storage of these wastes prior to ~~being transferred~~ to a recycling facility or approved beneficial reuse site. This exemption does not apply to drum and barrel reconditioning or recycling facilities, scrap tire management facilities, electronic waste management facilities, or to underground storage tank storage or decommissioning facilities~~.~~

(xi) Facilities storing construction/demolition waste for transfer to a recycling facility: A solid waste storage, treatment, or transfer facility occupying no more than one (1) acre and used only for the storage, treatment, or transfer of construction/demolition waste as authorized by the administrator for the primary purposes of transfer to a recycling facility or beneficial reuse in a manner approved by the administrator. Unless all waste management occurs indoors, the facility shall maintain a twenty foot buffer zone/fire lane separating waste from a fenced facility boundary. This exemption applies to the sorting, shredding, grinding, crushing, baling, and storage of these wastes prior to transfer to a recycling facility or approved beneficial reuse site. This exemption does not apply to drum and barrel reconditioning or recycling facilities, scrap tire management facilities,

electronic waste management facilities, or to underground storage tank decommissioning or storage facilities.

(~~xii~~<sup>vii</sup>) Solid waste transfer, treatment, storage, and processing facilities: Solid waste transfer, treatment, storage, and processing facilities receiving 20 cubic yards or less of solid waste per day and occupying no more than three (3) acres, including a twenty foot buffer zone within a fenced facility boundary, which individually or in combination manage no more than the following specified quantities of wastes. This exemption does not apply to facilities whose owner or operator simultaneously owns or operates more than one transfer facility within one (1) mile of each other;

~~used for transferring 20 cubic yards or less of non-liquid solid waste per day and having 40~~50 cubic yards of mixed solid wastes stored in containers; and or less total container capacity for solid wastes. This exemption does not apply to facilities whose owner or operator simultaneously owns or operates more than one transfer facility within one (1) mile of each other;

50 cubic yards of construction and demolition waste stored in containers; and

Green waste and clean wood waste storage and/or compost piles; and

Compost piles for green waste and manure operated in a manner that does not create odors, constitute a nuisance, or attract vectors; and

500 scrap tires stored in a manner that prevents fires and vector habitat; and

20 cubic yards of electronic waste stored in containers for shipment to a recycling facility; and

1,000 gallons of on-specification used oil or used oil generated by do-it-yourself used oil generators, if the used oil is stored to be recycled, reclaimed, or reused; and

1,000 gallons of used antifreeze, if the used antifreeze is stored to be recycled, reclaimed, or reused; and

250 used lead acid batteries, if the batteries are stored in an upright position and are not leaking, for the purpose of transfer to a recycling facility; and

150 cubic yards of paper, cardboard, plastic, aluminum cans, glass, and metal, or other nonputrescible municipal solid wastes which may be specifically authorized by the administrator, for the primary purposes of transfer to a recycling facility or beneficial reuse in a manner approved by the administrator. This provision applies to the sorting, shredding, grinding, crushing, baling, and storage of these wastes prior to transfer to a recycling facility or approved beneficial reuse site; and

Household hazardous waste (HHW) collected no more frequently than semiannual collection days, provided that the HHW collected is removed from the site and transported to a permitted facility within thirty (30) days.

~~(xiiiiviii)~~ Vehicle service and maintenance facilities: In addition to used oil stored pursuant to this subsection, ~~Used oil and~~ used antifreeze storage tanks located at vehicle service facilities, provided the storage tanks are properly labeled, have a used antifreeze storage ~~combined~~ capacity of no more than ~~2,000~~500 gallons for each waste, and are used only to contain ~~used oil or~~ used antifreeze that the owner or operator generates or receives from do-it-yourself antifreeze~~oil~~ changes;

~~(xix)~~ ~~Used oil-fired space heaters, provided that the heater is designed to have a maximum capacity of not more than 0.5 million btu per hour, combustion gases are vented to the outside air, and the heater burns only used oil that the owner or operator generates or receives from do-it-yourself oil changers, and~~

~~(xxiv)~~ Medical waste management facilities: Medical waste storage units, incinerators, autoclaves, or

other treatment devices, used to store or treat only medical wastes which are generated by the owner or operator of the medical facility or by doctor's offices, medical clinics, dental offices and other medical waste generators within the county or local area where the medical waste storage units, incinerators, autoclaves, or other treatment devices are located.

~~(xxi)~~xv) Beneficial use: The reuse of wastes in a manner which is both beneficial and protective of human health and the environment, as approved by the administrator.

(xvi) An exemption or solid waste management permit are not required for facilities which are not solid waste facilities as defined by W.S. 35-11-103(d) (ii):

(A) Facilities regulated by the Wyoming Oil and Gas Commission under W.S. 30-5-104(d) (vi) (A) or (B);

(B) The disposal of waste soil and rock directly connected with mining, subject to the Land Quality Division rules and regulations, and including overburden, reject mineral and mill tailings;

(C) The disposal of sewage waste, municipal wastewater treatment sludges, wastewaters, or bulk liquid waste at facilities, other than solid waste landfills, which are permitted in accord with the Water Quality Division rules and regulations;

(D) Open burning of wood, brush, weeds and tree trimmings conducted in compliance with the Air Quality Division rules and regulations;

(E) Facilities which would have been subject to the permitting requirements of Article 3 (Water Quality) of the act if constructed after July 1, 1973;

(F) Lands and facilities subject to the permitting requirements of Articles 2 (Air Quality), 3 (Water Quality), or 4 (Land Quality) of the act used solely for the management of wastes generated within the boundary of the permitted facility or mine operation by

the facility or mine owner or operator or from a mine mouth electric power plant or coal drier;

(G) Lands and facilities owned by a person engaged in farming or ranching and used to dispose of solid waste generated incidental to his or her farming and ranching operation;

(H) Transport vehicles, storage containers and treatment of waste in containers.

(m) Time:

(i) When time is prescribed by these rules and regulations in "days", the time period shall be counted as calendar days.

(ii) When time prescribed by these rules and regulations for performing any act expires on a Saturday or legal holiday, such time shall extend to and include the next succeeding business day.

## Section 2. General Permit Application Procedure.

(a) General application requirements: Each application for a solid waste management facility permit described in this section shall contain information adequate to demonstrate compliance with the minimum standards for location, design and construction, operating, monitoring, closure and post-closure as specified in the applicable chapter of these rules and regulations. Permit application procedures are set out in W.S. 35-11-502.

(b) Public notice and comment: Prior to the issuance of a permit by the director, each application for a new, renewal, or closure ~~solid waste management facility permit and any application for a major amendment,~~ shall be submitted for public notice and comment as follows:

(i) Upon receipt of notification that the application has been determined to be complete, the applicant shall comply with the following requirements:

(A) Within fifteen (15) days of being

notified that the application is complete:

(I) Provide written notice to landowners with property located within a half mile of the site, using certified, return receipt requested mail for disposal facilities and first class mail for other solid waste management facilities;

(II) Provide written notice to each member of the interested parties mailing list maintained by the administrator, the mayor of each city or town within fifty miles of the proposed facility and to the county commission and any solid waste district for the county in which the potential facility is located, using first class mail;

(III) Cause a written notice to be published once a week for two (2) consecutive weeks in a newspaper of general circulation within the county where the applicant plans to locate the facility;

(IV) Specific text for the written notice shall be provided to the applicant by the administrator. The notice shall contain information about the permit application including the identity of the applicant, the proposed facility location and size, the wastes types intended for management, the method of waste management, and the operating life. The notice shall identify the last date for filing comments on the application;

(B) Provide the administrator with documentation that the notice requirements of subsection (b)(i)(A) of this section have been followed. Documentation shall consist of copies of return receipt cards, publisher's affidavits and other documentation, as appropriate; and

(C) The public comment period shall begin on the first date of publication of the notice required in subsection (b)(i)(A)(III) of this section, and shall end at 5:00 pm on the thirtieth (30th) day following the last date of publication of the notice.

(D) The administrator may, at his or her

discretion, conduct a public hearing on the application submission.

(ii) For each new, renewal, or closure ~~solid waste management facility~~ permit application or any application for a major ~~amendment~~ change, the administrator shall issue a ~~draft~~ proposed permit following completion of the administrator's permit analysis, unless the permit is denied pursuant to Section 4 of this chapter. Upon receipt of a ~~draft~~ proposed permit, the applicant shall comply with the following requirements:

(A) Within fifteen (15) days of receiving a ~~draft~~ proposed permit:

(I) Provide written notice to landowners with property located within a half mile of the site, the mayor of each city or town within fifty (50) miles of the proposed facility, the local county commission and any solid waste district for the county in which the potential facility is located, using certified, return receipt requested mail for disposal facilities and first class mail for other solid waste management facilities;

(II) Provide written notice to each member of the interested parties mailing list maintained by the administrator using first class mail;

(III) Cause a written notice to be published once a week for two (2) consecutive weeks in a newspaper of general circulation within the county where the applicant plans to locate the facility;

(IV) Specific text for the written notice shall be provided to the applicant by the administrator. The notice shall contain information about the permit application including the identity of the applicant, the proposed facility location and size, the wastes types intended for management, the method of waste management, the operating life, and the administrator's findings. The notice shall identify the period for filing objections to the application;

(V) Deliver, in person or via

certified, return receipt requested mail, a copy of the permit application, the administrator's review and the administrator's ~~draft~~proposed permit to a local public library and the county clerk of the county of the proposed facility. The permit application and ~~draft~~proposed permit shall be maintained for public viewing at a local public library and at the county clerk's office for the duration of the public comment period specified in Section 2(b)(ii)(C) of this chapter; and

(B) Provide the administrator with documentation that the notice and filing requirements of subsection (b)(ii)(A) of this section have been followed. Documentation shall consist of copies of return receipt cards, and publisher's affidavits or affidavits of personal delivery as appropriate.

(C) The public comment period shall begin on the first date of publication of the notice required in subsection (b)(ii)(A)(III) of this section, and shall end at 5:00 pm on the thirtieth (30th) day following the last date of publication of the notice.

(D) If substantial written objections are received by the director by 5:00 pm on the last day of the public comment period, a public hearing will be held within twenty (20) days after the last day of the public comment period, unless a different schedule is deemed necessary by the council. The council or director shall publish notice of the time, date and location of the hearing in a newspaper of general circulation in the county where the applicant plans to locate the facility, once a week for two (2) consecutive weeks immediately prior to the hearing. The hearing shall be conducted as a contested case in accordance with the Wyoming Administrative Procedures Act, and right of judicial review shall be afforded as provided in that Act.

(c) Permit application procedure:

(i) The applicant shall provide the administrator with three (3) complete copies of the permit application. The application shall be organized in three-ring binders, and the information presented in an order that conforms to the order set forth in the applicable

sections of these rules and regulations, unless the administrator approves an alternate format for the organization of the application.

(ii) The administrator shall conduct a completeness review of each application and notify the applicant of the results within sixty (60) days of receipt of the application. If the administrator deems the application incomplete, he or she shall so advise and state in writing to the applicant the information required. All items not specified as incomplete at the end of the first sixty (60) day period shall be deemed complete for the purposes of this subsection.

(iii) If the applicant resubmits an application or further information, the administrator shall review the application or additional information within sixty (60) days of each submission and advise the applicant in writing if the application or additional information is complete.

(iv) After the application is determined complete, the applicant shall give written notice of the application as required in Section 2(b)(i) of this chapter. A preconstruction inspection will be conducted within sixty (60) days of a determination that the application is complete.

(v) The administrator shall review the application and unless the applicant requests a delay, advise the applicant in writing within ninety (90) days from the date of determining that the application is complete, that a proposed permit is suitable for publication under Chapter 1, Section 2(b)(ii), or that the application is deficient, or that the application is denied. All reasons for deficiency or denial shall be stated in writing to the applicant. All items not specified as being deficient at the end of the first ninety (90) day period shall be deemed sufficient for the purposes of this subsection.

(vi) If the applicant submits additional information in response to any deficiency notice, the administrator shall review such additional information within thirty (30) days of submission and advise the

applicant in writing if a proposed permit is suitable for publication under Chapter 1, Section 2(b)(ii), or that the application is still deficient, or that the application is denied.

(d) Permit issuance:

(i) If the application is determined to be complete and demonstrates compliance with the applicable standards, the administrator shall prepare a proposed permit. Public notice as specified in Chapter 1, Section 2(b)(i) and 2(b)(ii), will occur.

(ii) The director shall render a decision on the proposed permit within thirty (30) days after completion of the notice period if no hearing is requested. If a hearing is held, the council shall issue findings of fact and a decision on the proposed permit within thirty (30) days after the final hearing. The director shall issue or deny the permit no later than fifteen (15) days from receipt of any findings of fact and decision of the Environmental Quality Council. In granting permits, the director may impose such conditions as may be necessary to accomplish the purpose of the act and which are not inconsistent with the existing rules, regulations, and standards.

(iii) The operator shall notify the administrator as soon as construction has been completed. A construction inspection shall be conducted within ninety (90) days of the notification.

(e) Permit renewal applications ~~s-procedure~~:

(i) In addition to the following requirements, permit renewal applications are subject to the application procedures set forth in subsection (b), (c), and (d) of this section.

(ii) The operator subject to solid waste management facility permit requirements shall provide the administrator with a renewal application. The renewal permit application shall contain the information specified in the relevant chapter(s) of these rules and regulations and be submitted in accordance with the time frames

specified.

(iii) Except for municipal solid waste landfills with lifetime permits, ~~The~~ operator of a facility with a valid permit issued under Section 2(d) of this chapter or a valid renewal permit issued under Section 2(f) of this chapter, shall submit a permit renewal application ~~between 270 and 180 days~~ no less than 12 months prior to the expiration of said permit unless a closure permit application has been submitted. Municipal solid waste landfills with lifetime permits shall submit a renewal application no later than three (3) years prior to the expiration of the lifetime municipal solid waste landfill permit. The renewal application shall contain the information specified in the applicable chapter of these rules and regulations.

(~~iv~~) Three (3) copies of the permit renewal application shall be submitted to the administrator. The application shall be organized in three ring binders, and the information presented in an order that conforms to the order set forth in the applicable application requirements sections of these rules and regulations, unless the administrator approves an alternate format for the organization of the application. The applicant shall have the option to submit copies of only the updated and revised portion of the previous application, if the revised and updated pages and drawings are appropriately numbered and dated to facilitate incorporation into the previous permit document and the revisions are clearly identified.

~~(iv) The application shall be reviewed by the administrator within ninety (90) days after submission.~~

(v) A renewal inspection shall be conducted within sixty (60) days after the application is determined complete and technically adequate.

(f) Renewal permit issuance:

(i) ~~If the renewal permit application is determined to be complete, and technically adequate, and the application and site inspection demonstrate compliance with the renewal requirements in the applicable chapter of~~

~~these rules and regulations, a renewal permit will be issued.~~ Renewal permits are issued pursuant to subsection (d) of this section.

(ii) The term of the renewal permit shall be as specified in the applicable chapter of these rules and regulations.

(g) Closure permit applications s-~~procedure~~:

(i) In addition to the following requirements, closure permit applications are subject to the application procedures set forth in subsection (b), (c), and (d) of this section.

(ii) The operator shall provide the administrator with a closure permit application if required by the applicable chapter of these rules and regulations in accordance with the time frames specified therein.

(iii) Anticipated closure: The operator of a facility with a valid permit on the effective date of these regulations, or a valid permit or renewal permit issued under Section 2(d) or Section 2(f) of this chapter, shall submit a closure permit application to the administrator ~~between 270 and 180 days~~ no less than twelve (12) months prior to the anticipated facility closure.

(iv~~ii~~) Unanticipated closure: In the event any solid waste management facility ceases operation, as determined by nonreceipt of solid wastes for any continuous nine (9) month period or any continuous one (1) year period for landfarm facilities or petroleum-contaminated soils land treatment facilities, the facility operator shall provide written notification to the administrator no later than thirty (30) days after the end of such nine (9) month (or one (1) year) period. This notification shall be accompanied by a closure permit application unless the administrator approves interim measures with delayed final closure for good cause upon application by the operator.

(v~~iv~~) Three (3) copies of the closure permit application shall be submitted to the administrator. The

application shall be organized in three ring binders, and the information presented in an order that conforms to the order set forth in the applicable application requirements sections of these rules and regulations, unless the administrator approves an alternate format for the organization of the application.

~~(v) The application shall be reviewed by the administrator within ninety (90) days after submission.~~

(h) Closure permit issuance:

(i) Closure permit issuance: Closure permits are issued pursuant to subsection (d) of this section. ~~If the closure permit application is determined to be complete and the application demonstrates compliance with the closure/post-closure standards in the applicable chapter of these rules and regulations, a closure permit shall be issued.~~

(ii) Upon completion of closure activities, the operator shall provide a certification from a registered professional engineer confirming that the provisions of the closure plan have been carried out and that the facility has been closed in compliance with the closure standards specified in these rules and regulations.

(iii) The term of any closure permit shall be set to coincide with the duration of any closure/post-closure maintenance and monitoring period specified in the applicable chapter of these rules and regulations. No renewals of closure permits shall be required.

(i) Variance application procedure for location standards specified in W.S. 35-11-502(c):

(i) For solid waste disposal facilities which do not meet the location standards specified in paragraphs (i) through (iv) of W.S. 35-11-502(c), the applicant may apply to the director for a variance from the standards by submitting a written variance application. The variance application shall contain the following information:

(A) For proposed facilities which do not meet the location standards for proximity to towns,

schools or any occupied dwelling house in W.S. 35-11-502(c)(i) or (ii), the applicant shall:

(I) Present an analysis of additional traffic which would result from the proposed facility, and demonstrate that additional traffic caused by operation of a disposal facility will not pose a safety threat to the public;

(II) Demonstrate that the operation of the proposed facility will not present odor, dust, litter, insect, noise, health (human and animal) or aesthetic problems, and will not present a public nuisance by its proximity to the town, schools and/or dwellings. This demonstration may be made through analysis of the facility design and operation practices; and

(III) Provide design features and monitoring specifications used to preclude methane migration from affecting any buildings within one (1) mile of the proposed facility, if the facility is used for the disposal of wastes which may form methane as a decomposition product.

(B) For proposed facilities which do not meet the location standard for proximity to, and visual screening from, state or federal highways in W.S. 35-11-502(c)(iii), the applicant shall provide information describing how the design and operation of the facility will minimize visual impacts to the highway(s).

(C) For proposed facilities, excluding incinerators, which do not meet the location standard for proximity to water wells in W.S. 35-11-502(c)(iv), the applicant shall provide:

(I) A detailed description of the site's geologic and hydrologic characteristics, supported by data from on-site soil borings and groundwater monitoring wells;

(II) A detailed description of the proposed facility's containment system (cap and liner systems) and surface water diversion structures;

(III) A detailed description of the groundwater monitoring program (including location of wells, sampling frequency and sampling parameters) which would be instituted when the facility begins operations; and

(IV) An analysis of the potential for contaminants which may leak from the disposal facility to adversely affect the nearby water well(s). This analysis may be in the form of contaminant transport modeling results, an evaluation of hydrologic conditions or aquifer properties, or other applicable information.

(D) In addition to the other information requested in this subsection, all variance applications made under this subsection shall be accompanied by the following information:

(I) The proposed size of the facility;

(II) The name, address and telephone number of the applicant;

(III) The legal description of the property;

(IV) A detailed description of the facility which includes information on the amount, rate (tons per day), type (including chemical analyses if other than household refuse) and source of incoming wastes, a narrative describing the facility operating procedures, and the estimated site capacity and site life;

(V) The names and addresses of the property owners of all lands within one (1) mile of the proposed facility boundary;

(VI) A USGS topographic map (scale of 1:24,000 or 1: 62,500) which shows the boundaries of the proposed landfill site; and

(VII) Information sufficient to evaluate the conditions specified in paragraph (i) (ii) of this section.

(ii) In granting any variance as provided by this paragraph, the director shall issue written findings that the variance will not injure or threaten to injure the public health, safety, or welfare. The director shall only make such a finding if the evidence presented in the application and obtained at a public hearing demonstrates that:

(A) There are no available alternative locations which meet the location standards for a solid waste management disposal facility to meet the disposal needs of the applicant, within a reasonable distance of the boundary of the service area of the facility;

(B) It is not possible for the applicant to use existing, permitted solid waste management disposal facilities owned by another person within a reasonable distance of the boundary of the service area of the facility; and

(C) Special or unique conditions or circumstances apply to the applicant and justify granting the variance.

(iii) In granting any variance as provided by this paragraph, the director shall condition the variance such that it applies only to the facility described in the application. Changes to the facility size, type or source of waste, rate at which waste is received, or any other aspect of the facility as described in paragraph (i)(i)(D)(IV) of this section shall render the variance invalid.

(iv) The administrator shall review the variance application and provide his or her draft findings and recommendations to the director and the applicant within ninety (90) days of the date when the variance application is received, unless a delay is requested by the applicant.

(v) Upon issuance of the administrator's draft findings and recommendations, the administrator shall schedule and conduct a hearing on the variance in accordance with the procedures specified in

W.S. 35-11-601. The director shall make a final decision regarding the variance application within sixty (60) days from the date of the hearing.

(j) Permit application procedures for low hazard and low volume treatment, processing, storage, and transfer facilities:

(i) The applicant shall provide the administrator with three (3) complete copies of the permit application. The application shall be organized in three-ring binders and the information presented in an order that conforms to the order set forth in the applicable sections of these rules and regulations, unless the administrator approves an alternate format for the organization of the application;

(ii) The administrator shall conduct a completeness and technical review of each application submittal within thirty (30) days of receipt of the application. If the administrator deems the application incomplete and/or technically inadequate, the administrator shall so advise and state in writing to the applicant the information required;

(iii) For each new low hazard and low volume treatment, processing, storage, and transfer facility permit application or application for a major amendment to an existing facility , excluding mobile transfer, treatment or storage facilities, the administrator shall issue a proposed permit following completion of the administrator's permit analysis, unless the permit is denied pursuant to Section 4 of this chapter. Upon receipt of a proposed permit the applicant shall within fifteen (15) days:

(A) Cause a written notice to be published once a week for two (2) consecutive weeks in a newspaper of general circulation within the county where the applicant plans to locate the facility. Specific text of the notice shall be provided to the applicant by the administrator. The notice shall contain information about the permit application including the identity of the applicant, the proposed facility location and size, the waste types intended for management, the method of waste

management, the operating life, and the administrator's findings. The notice shall identify the period for filing objections to the application;

(B) Notify adjacent landowners by first class mail;

(C) Provide the administrator with documentation that the notice requirements of paragraphs (iii) (A) and (B) of this subsection have been followed. Documentation shall consist of the publisher's affidavits and sworn statement;

(iv) For each new mobile low hazard and low volume treatment, processing, storage, and transfer facility permit application or application for a major amendment to an existing facility, the administrator shall issue a proposed permit following completion of the administrator's permit analysis, unless the permit is denied pursuant to Section 4 of this chapter. Upon receipt of a proposed permit the applicant shall within fifteen (15) days:

(A) Cause a written notice to be published once a week for two (2) consecutive weeks in a newspaper of general circulation within the state. Specific text of the notice shall be provided to the applicant by the administrator. The notice shall contain information about the permit application including the identity of the applicant, the proposed facility service area, the waste types intended for management, the method of waste management, the operating life, and the administrator's findings. The notice shall identify the period for filing objections to the application;

(B) Provide the administrator with documentation that the notice requirements of paragraphs (iv) (A) of this subsection have been followed. Documentation shall consist of the publisher's affidavits and sworn statement;

(v) The public comment period shall begin on the first day of publication of the notice required in paragraphs (iii) (A) or (iv) (A) of this section and shall end at 5:00 pm on the thirtieth (30th) day following the

last day of publication of the notice;

(vi) If substantial written objections are received by the director by 5:00 pm on the thirtieth (30th) day following the last date of publication of the notice, a public hearing will be held within twenty (20) days after the last day of the public comment period, unless a different schedule is deemed necessary by the council. The council or director shall publish notice of the time, date, and location of the hearing in a newspaper of general circulation in the county where the applicant plans to locate the facility, once a week for two (2) consecutive weeks immediately prior to the hearing. The hearing shall be conducted as a contested case in accordance with the Wyoming Administrative Procedures Act, and right of judicial review shall be afforded as provided in that act.

(vii) The operator of a facility with a valid permit issued under Section 2(dj) of this chapter or a valid renewal permit issued under Section 2(f) of this chapter, shall submit a permit renewal application between 270 and 180 days prior to the expiration of said permit unless a closure permit application has been submitted. The renewal application shall contain the information specified in the applicable chapter of these rules and regulations.

(viii) Three (3) copies of the permit renewal application shall be submitted to the administrator. The application shall be organized in three ring binders, and the information presented in an order that conforms to the order set forth in the applicable application requirements sections of these rules and regulations, unless the administrator approves an alternate format for the organization of the application. The applicant shall have the option to submit copies of only the updated and revised portion of the previous application, if the revised and updated pages and drawings are appropriately numbered and dated to facilitate incorporation into the previous permit document and the revisions are clearly identified.

Section 3. Permit Amendments and Transfers: This section applies to all permits, renewal permits and

closure permits previously described in Chapter 1, Section 2, as follows:

(a) Permit amendments constituting a major change for municipal solid waste landfills shall comply with the requirements of Chapter 2, Section 2(g) of these rules and regulations.

(a) Permit amendments:

(i) This subsection applies to minor changes of municipal solid waste landfill permits and to all permit amendments for other solid waste facilities.

~~(ii) For amendments describing a major change,~~  
The operator shall submit a written application, describing the ~~major~~ amendments sought, including additional plates and/or drawings as necessary to completely describe the proposed amendment.

(iii) Within ~~forty-five (45)~~ sixty (60) days of receipt of any application for a ~~proposed major~~ permit amendment, the administrator shall conduct a review of the application and provide a written response to the operator ~~of its findings~~. If the amendment is deemed to be complete and demonstrates compliance with applicable standards and constitutes a major change, the public notice and comment period in Chapter 1, Section 2(b)(ii) shall commence. If the proposed amendment is determined to be inadequate, the operator shall be required to submit any additional information required by the administrator, unless there is a basis for denial as specified in Chapter 1, Section 4(a).

~~(iii) The operator shall consult with the administrator prior to instituting a change in design or operation of a permitted facility, to get a determination as to whether the change is considered to be a major change.~~

~~(iv) Following receipt of the administrator's written determination that the proposed change is not major, the operator may make the change in design or operation without prior approval of the administrator. Amendments to the application reflecting any change in~~

~~design or operation shall be included in the permit renewal application.~~

(~~iii~~v) All amendments shall comply with the location, design and construction, operating, monitoring, financial assurance and closure standards of the applicable chapter of these rules and regulations.

(~~b~~c) Permit transfers:

(i) An operator shall receive written approval from the director prior to transfer of any permit authorized by these regulations.

(ii) Applications for the approval of the transfer of any permit shall be made in writing by the operator and shall contain:

(A) The name, address and telephone number of the legal operator of the facility to whom the permit will be transferred, and, at a minimum, a summary, listing of any administrative order, civil or administrative penalty assessment, bond forfeiture, civil, misdemeanor, or felony conviction, or court proceeding for any violations of any local, state or federal law occurring within a minimum of five (5) years of application submittal relating to environmental quality or criminal racketeering, of the solid waste manager, the applicant, or if the applicant is a partnership or corporation, any partners in the partnership or executive officers or corporate directors in the corporation;

(B) The name, address and telephone number of the solid waste manager;

(C) Proposed date of the transfer of the permit;

(D) Signed and notarized documentation from the new operator indicating that the new operator has agreed to accept and be bound by the provisions of the permit and any amendments, agreed to construct and operate the facility in accordance with the approved plan, and agreed to accept responsibility for the facility's compliance with the standards specified in the applicable

chapter of these rules and regulations, including the responsibility to perform corrective actions.

(iii) The original operator shall retain responsibility for the facility according to the terms of the original permit until the application for permit transfer has been approved by the director. The new operator may not operate the facility until the permit transfer has been approved.

Section 4. Permit Denial, Revocation or Modification. This section applies to all permits, renewal permits and closure permits previously described in Chapter 1, Section 2, as follows:

(a) Permit denials: The director may deny a permit if:

(i) Permit issuance would conflict with the policy and purpose of the act; or

(ii) The applicant fails to submit the required information; or

(iii) The facility history indicates continual noncompliance with these rules and regulations; or

(iv) The application indicates that the facility would not comply with the location, design and construction, operating, monitoring, closure or post-closure standards as specified in the applicable sections of these regulations; or

(v) The application misrepresents actual site conditions; or

(vi) The applicant fails to employ a solid waste manager who meets the qualifications of the applicable chapter of these rules and regulations; or

(vii) The applicant, or any partners, executive officers, or corporate directors, has been found civilly or criminally liable for violations of environmental quality or criminal racketeering laws or regulations which in the judgement of the director constitutes evidence that

the applicant cannot be relied upon to conduct the operations described in the application in compliance with the act and these rules and regulations.

(b) Permit revocation:

(i) The director may revoke a permit in instances of continual noncompliance, or if it is determined that the permit application misrepresented actual site conditions, or if the continued operation is inconsistent with the policy and purpose of the act.

(ii) The director shall notify the operator of his or her intent to revoke the permit. The written notification shall contain the basis for revoking the permit. All permit revocation procedures shall be accomplished in accordance with the requirements of the Wyoming Administrative Procedures Act.

(iii) The director may order facility closure following permit revocation. Closure and post-closure activities shall be accomplished in accordance with a plan approved by the administrator. If a closure/post-closure plan has not been approved, closure and post-closure activities shall be accomplished in accordance with the standards specified in the applicable chapter of these rules and regulations.

(c) Permit modification: The director may modify an existing permit by notifying the facility operator in writing. The written notification shall contain the basis for modifying the permit.

Section 5. One-Time or Emergency Waste Management Authorization Permit.

(a) Authorization application procedure:

(i) This section applies to emergency situations, spilled solid wastes and residues from uncontrolled releases. This section does not apply to hazardous wastes or actions completed under either a hazardous waste permit or a hazardous waste corrective action order.

(ii) The administrator may choose to issue a one-time or emergency waste management authorization in lieu of the permits specified in Chapter 1, Section 2. This type of waste management authorization shall only be considered under the following conditions:

(A) The proposed waste management activity shall be a single occurrence of limited duration.

(B) The applicant documents that other waste management and/or reuse options were thoroughly investigated and that no other reasonable alternatives had been identified.

(C) The proposed waste disposal site would meet the location standards specified in the applicable section of Chapter 2, 3, or 4 of these rules and regulations or the proposed waste management site would meet the location standards specified in the applicable section of Chapter 8 of these rules and regulations.

(D) The proposed waste management activity would not present a significant threat to public health or the environment.

(E) The waste management activity would result in de minimis impacts which would not warrant the initiation of public participation procedures.

(F) The total waste disposal area would be ~~less~~ no more than one (1) acre.

(G) The applicant can document that permission has been obtained from the landowner to manage the materials at the proposed waste management location, if that location is not owned by the applicant.

(H) The applicant commits to promptly record a notarized notice with the county clerk, in the county where the facility is located, which adequately describes the location, nature and extent of any waste disposal activity.

(iii) Three (3) copies of the waste management authorization request shall be submitted to the

administrator. The request shall be organized in a three ring binder and the information presented in an order that conforms to the relevant application requirements section of these rules and regulations, unless the administrator approves an alternate format for the organization of the request.

(iv) The waste management authorization request shall document compliance with the conditions specified in subsection (a)(ii) of this section allowing for the administrator's consideration of a one-time or emergency waste management authorization. The request shall contain information adequate to demonstrate compliance with the standards specified in the applicable chapter of these rules and regulations.

(v) The waste management authorization request shall be reviewed by the administrator within twenty (20) days after submission.

(b) Authorization issuance:

(i) The administrator may deny waste management authorization for any of the reasons specified in Section 4(a) of this Chapter. The administrator may also deny waste management authorization if it is determined that the proposed waste management activity would not be subject to the provisions described in subsections (a)(i) and (a)(ii) of this section.

(ii) If the waste management authorization request is determined to be complete and the request demonstrates compliance with the standards in the relevant application requirements section, a waste management authorization will be granted by the administrator.

(iii) The operator shall notify the administrator following completion of authorized waste management activities. This notification shall be accompanied by site photographs adequate to demonstrate the site conditions following closure.

(iv) The term of the waste management authorization shall be no longer than one (1) year.



**SOLID WASTE  
RULES AND REGULATIONS**

**Chapter 2**

**Strikethrough/Underline Version**

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Appendix A - Constituents for Detection Monitoring

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CHAPTER 2

~~SANITARY~~ MUNICIPAL SOLID WASTE LANDFILL REGULATIONS

Section 1. In General.

(a) Authority: The authority for the rules and regulations promulgated in this chapter is the Wyoming Environmental Quality Act, W.S. 35-11-101 et seq.

(b) Applicability: This chapter governs ~~sanitary~~ municipal solid waste landfills.

(c) Objective: The objective of these rules and regulations is to set forth permit application requirements and to establish minimum standards for the location, design, construction, operation, monitoring, closure, and post-closure maintenance of ~~sanitary~~ municipal solid waste landfills.

(d) Severability: If any section or provision of these regulations, or the application of that section or provision to any person, situation, or circumstance is adjudged invalid for any reason, the adjudication does not affect any other section or provision of these regulations or the application of the adjudicated section or provision to any other person, situation, or circumstance. The Environmental Quality Council declares that it would have adopted the valid portions and applications of these regulations without the invalid part, and to this end the provisions of these regulations are declared to be severable.

(e) Reserved

(f) One-time or emergency waste management authorization: The one-time or emergency waste management authorization procedure described in Chapter 1, Section 5, will not be considered for the land disposal of municipal solid wastes or mixed wastes.

Section 2. ~~Sanitary~~ Municipal Solid Waste Landfill

Permit Application Requirements.

~~(a) Permit transition: The following rules concerning permit application submittals under Chapter 1, Section 2 will apply.~~

~~(i) Existing facilities:~~

~~(A) Existing facilities that have received wastes after September 13, 1989:~~

~~(I) The operator of any facility with a complete permit application or a permit that has not expired by September 13, 1989 shall be required to submit a renewal application, unless the operator elects to close the facility before January 1, 1994. The renewal application shall be submitted after January 1, 1992, as specified by the administrator, but no later than January 1, 1994.~~

~~(II) The operator of any facility without a complete application or valid permit on September 13, 1989 shall either:~~

~~(1.) Submit a renewal application after September 13, 1989, as specified by the administrator, but no later than October 1, 1990; or~~

~~(2.) Submit a closure permit application after September 13, 1989, as specified by the administrator, but no later than January 1, 1991, and cease receipt of wastes within six (6) months following submission of a closure permit application but no later than July 1, 1991.~~

~~(B) Existing facilities that have not received wastes after September 13, 1989:~~

~~(I) The operator may be required to submit a closure permit application upon request by the administrator.~~

~~(II) The administrator may request such an application whenever the administrator has reason~~

~~to believe that health and safety hazards are present, there has been evidence of environmental contamination, or the facility does not comply with the location, monitoring, closure or post-closure standards.~~

~~\_\_\_\_\_ (ii) New facilities:~~

~~\_\_\_\_\_ (A) The operator of any new facility with a complete application or a valid permit on September 13, 1989 shall be required to submit a renewal application, unless the operator elects to close the facility before January 1, 1994. The renewal application shall be submitted by January 1, 1994. For any new facility with a complete application which has met public notice requirements in accord with the Wyoming Solid Waste Management Rules and Regulations, 1975, the director may issue initial letters of approval for construction and operation under those rules.~~

~~\_\_\_\_\_ (B) The operator of any other new facility shall submit a permit application in accordance with the permit application procedures specified in Chapter 1, Section 2(b) and 2(c).~~

~~\_\_\_\_\_ (iii) Closing facilities:~~

~~\_\_\_\_\_ (A) Anticipated closure: The operator of a facility with a valid permit on September 13, 1989, or a valid permit or renewal permit issued under Chapter 1, Section 2(d) or Section 2(f), shall submit a closure permit application to the administrator between 270 and 180 days prior to the anticipated facility closure.~~

~~\_\_\_\_\_ (B) Unanticipated closure: In the event any solid waste management facility ceases operation, as determined by nonreceipt of solid wastes for any continuous nine (9) month period, the facility operator shall provide written notification to the administrator no later than thirty (30) days after the end of such nine (9) month period. This notification shall be accompanied by a closure permit application unless the administrator approves interim measures with delayed final closure for good cause upon application by the operator.~~

~~\_\_\_\_\_ (C) Facilities closing because the operator cannot make the demonstration required in Section 3(b) of this chapter: Existing facilities which must close because the operator cannot make the demonstration required in Section 3(b)(i)(A) [airport proximity], Section 3(b)(i)(B) [floodplains], or Section 3(b)(i)(F) [unstable areas] of this chapter must close by October 9, 1996, in compliance with the requirements of Section 7 of this chapter. A closure permit under section 2(d) of this chapter is also required. The closure deadline specified in this subsection may be extended by up to two (2) years if the owner demonstrates to the administrator that:~~

~~\_\_\_\_\_ (I) There is no available alternative disposal capacity; and~~

~~\_\_\_\_\_ (II) There is no immediate threat to human health and the environment.~~

~~\_\_\_\_\_ (iv) All sanitary landfills shall be subject to the standards contained in Chapter 15 of these rules, until such time as they are permitted under Chapter 1, Section 2, except that all existing sanitary landfills shall comply with the following standards contained in this chapter:~~

~~\_\_\_\_\_ (A) Section 3(b) [location standards],~~

~~\_\_\_\_\_ (B) Sections 4(j) and 4(k) [engineered containment systems],~~

~~\_\_\_\_\_ (C) Section 4(o) [methane control systems for onsite structures],~~

~~\_\_\_\_\_ (D) Section 5(a) [qualified solid waste manager],~~

~~\_\_\_\_\_ (E) Section 5(d) [unauthorized access],~~

~~\_\_\_\_\_ (F) Section 5(e) [liquid wastes],~~

~~\_\_\_\_\_ (G) Section 5(f) [hazardous wastes],~~

~~\_\_\_\_\_ (H) Section 5(j) [burning]~~

- ~~(I) Section 5(q) [routine cover],~~
- ~~(J) Section 5(t) [methane migration],~~
- ~~(K) Section 5(v) [surface water discharges],~~
- ~~(L) Section 5(y) [recordkeeping], and~~
- ~~(M) Section 7 [closure and post-closure standards].~~

(a) Permit transition: The following rules concerning permit application submittals under Chapter 1, Section 2 will apply.

(i) Existing facilities:

(A) Existing facilities that have received wastes after September 13, 1989:

(I) Existing facilities with closure permits issued before July 1, 2012, shall continue closure and post-closure under their existing permits.

(II) Existing facilities that intend to cease disposal of all waste before July 1, 2017, need not submit a renewal application, but shall submit a closure permit application no later than twelve (12) months prior to the expiration date of the facility's existing permit or the date the facility is anticipated to cease disposal of waste, whichever comes first.

(III) Existing facilities that do not have a lifetime permit and intend to continue disposal of waste after July 1, 2017, shall submit a permit renewal application twelve (12) months prior to the expiration of their current permit.

(B) Existing facilities that have not received wastes after September 13, 1989:

(I) The operator may be required to

submit a closure permit application upon request by the administrator.

(II) The administrator may request such an application whenever the administrator has reason to believe that health and safety hazards are present, there has been evidence of environmental contamination, or the facility does not comply with the location, monitoring, closure or post-closure standards.

(ii) New facilities:

(A) The operator of any new facility shall submit an operating permit application in accord with the requirements set forth in these rules.

(iii) Closing facilities:

(A) Anticipated closure: For facilities where disposal of all waste is anticipated to cease before July 1, 2017, the operator shall submit a closure permit application no later than twelve (12) months prior to the expiration date of the facility's existing permit or the date the facility is anticipated to cease disposal of waste, whichever comes first. For facilities where disposal is anticipated to continue after July 1, 2017, the operator shall submit a closure permit application no later than twelve (12) months prior to the date the facility is anticipated to cease disposal of waste.

(B) Unanticipated closure: In the event any solid waste management facility ceases operation, as determined by nonreceipt of solid wastes for any continuous nine (9) month period, the facility operator shall provide written notification to the administrator no later than thirty (30) days after the end of such nine (9) month period. This notification shall be accompanied by a closure permit application unless the administrator approves interim measures with delayed final closure for good cause upon application by the operator.

(b) Permit application requirements:

(i) All permit application forms shall be

signed by the operator, the landowner and any real property lien holder of public record. All applications shall be signed by the operator under oath subject to penalty of perjury. All persons signing the application shall be duly authorized agents. The following persons are considered duly authorized agents:

(A) For a municipality, state, federal or other public agency, by the head of the agency or ranking elected official;

(B) For corporations, at least two principal officers;

(C) For a sole proprietorship or partnership, a proprietor or general partner, respectively.

(ii) All permit applications shall be prepared under the supervision of a professional engineer registered in the State of Wyoming. All permit application forms shall be stamped, signed and dated by a professional engineer. In addition, all portions of the permit application which require geological services or work shall be stamped, signed and dated by a professional geologist.

(iii) The permit application shall contain a completed application form, and the information required in this subsection.

(A) A written report shall be submitted containing the following information:

(I) The name, address and telephone number of the legal operator of the facility to whom the permit would be issued and, at a minimum, a summary, listing of any administrative order, civil or administrative penalty assessment, bond forfeiture, civil, misdemeanor, or felony conviction, or court proceeding for any violations of any local, state or federal law occurring within a minimum of five (5) years of application submittal relating to environmental quality or criminal racketeering, of the solid waste manager, the

applicant, or if the applicant is a partnership or corporation, any partners in the partnership or executive officers or corporate directors in the corporation;

(II) Name, address and telephone number of the solid waste manager. A description of the solid waste manager training and examination program to be used by the operator to assure compliance with the requirements of Chapter 2, Section 5(a). The description shall include a specific listing of the training courses, and the required frequency of attendance at each course by the solid waste manager;

(III) Legal description of the property to be used as a disposal site. The complete legal description shall consist of a plat and legal description, monumented and signed in accordance with W.S. 33-29-111, by a Wyoming licensed land surveyor;

(IV) A brief narrative describing the disposal facility. The narrative should include an estimate of the size of the facility, the type of waste disposal activities that are planned (area fill, trench fill, special waste areas) and the type, amount, and source of incoming waste. The narrative should also describe the service area of the disposal facility;

(V) Information describing surface and mineral ownership of the site and surface ownership of all lands within one (1) mile of the facility boundary;

(VI) Demonstration that the facility meets the minimum location standards specified in Chapter 2, Section 3.

(VII) A summary description of any available regional geologic or hydrologic information, including copies of all available well logs for wells located within one (1) mile of the proposed site.

(VIII) Any information known to the applicant that would limit the site's suitability as a ~~sanitary~~ municipal solid waste landfill.

(IX) Site specific data describing the underlying soils, geology and groundwater, including:

(1.) A description of the soil types according to the Unified Soil Classification System, and the estimated thickness of the unconsolidated soil materials;

(2.) Information on the geologic conditions, including structure, bedrock types, estimated thickness and attitude, and fracture patterns;

(3.) Identification of unstable areas caused by natural features or man-made features or events, and which may result in geologic hazards including, but not limited to, slope failures, landslides, rockfalls, differential and excessive settling or severe erosion;

(4.) Identification of any seismic impact zones, fault areas, floodplains, and wetlands;

(5.) Depth to the uppermost groundwater. Information on groundwater aquifer thickness and hydrologic properties such as the groundwater flow direction and rate, and the potentiometric surface;

(6.) Existing quality of groundwater beneath the facility; identification of background water quality data;

(7.) Supporting documentation such as well completion logs, geologic cross-sections, soil boring lithologic logs, potentiometric surface maps and soil or groundwater testing data should be supplied as an appendix.

(X) A detailed description of the facility operating procedures, site design and construction methods. The description shall include the following information:

(1.) The service area (source of wastes) and the type and quantity of waste (on a daily, weekly or monthly basis) that will be disposed at the facility;

(2.) Estimated site capacity, in tons and cubic yards of waste, and site life, including the calculations on which these estimates are based;

(3.) An evaluation of the facility's potential to impact surface and groundwater quality, based on the facility design and the hydrogeologic information required in subsection (b) (iii) (A) (IX) of this section;

(4.) An evaluation of the availability of cover material sufficient to properly operate the facility through the closure period;

(5.) A detailed description of the facility liners, caps, berms, or other containment devices that will be used, along with the methods of construction and associated construction quality control program;

(6.) A description of the systems used for monitoring, collection, treatment and disposal of leachate, if required;

(7.) A description of the fire and other emergency protection measures;

(8.) A description of the topsoil handling procedures to be used, including measures to be used to protect the piles from erosion;

(9.) A description of the signs that will be posted to identify the landfill and listing the information required in Chapter 2, Section 4(c);

(10.) A description of the litter control program, including the frequency for litter collection for internal fences, perimeter roads and off-site areas special operating procedures to be used during

periods of high wind, and a summary of any wind speed and direction data available for the local area;

(11.) Type and amount of equipment to be provided at the site for excavating, earth moving, spreading, compaction and other needs; the specific purpose for each piece of equipment and the source and procedure used to obtain backup equipment;

(12.) A description of the special waste areas, and how they will be operated;

(13.) Any other information necessary to demonstrate compliance with the design, construction and operating standards specified in Chapter 2, Section 4 and Chapter 2, Section 5.

(XI) A detailed descriptive statement of the environmental monitoring program, including the following information:

(1.) A description of the monitoring well location, design, construction, and development;

(2.) A description of the groundwater sampling program including sampling frequency, test parameters, sampling procedures, test methods and quality control;

(3.) A description of the methane gas system for venting and/or monitoring including system location, design and construction;

(4.) A description of the methane gas monitoring frequency, procedures and test parameters, if required;

(5.) Any other information necessary to demonstrate compliance with the monitoring standards specified in Chapter 2, Section 6.

(XII) A detailed descriptive statement of the closure/post-closure stage of landfill

development, including the following information:

(1.) A description of the land use anticipated after closure;

(2.) The wording of the deed notice;

(3.) A copy of the notice of closure for the public;

(4.) A description of the final soil cover, as well as methods used to revegetate the site;

(5.) The method and length of time that surface water will be diverted from the site;

(6.) The methods by which surface erosion or water ponding problems will be corrected, including the frequency of planned inspections to discover such problems during the post-closure period;

(7.) The method by which any environmental monitoring systems and corrective action systems will be maintained, including the time period over which this will occur;

(8.) The length of time and method by which the operator will maintain access restrictions to any closed facility;

(9.) Any other information necessary to demonstrate compliance with the closure/post-closure standards specified in Chapter 2, Section 7.

(B) An original USGS topographic map with a scale of 1:24,000 with the proposed facility location shown; an original USGS topographic map with a scale of 1:62,500 or other suitable topographic map may be submitted if a 1:24,000 map is unavailable.

(C) A map or aerial photograph of the area shall be submitted showing land ownership, land use and

zoning within one (1) mile of the disposal site. The map or photograph shall be of sufficient scale to show all city boundaries, each occupied dwelling house, schools, hospitals, industrial buildings, water wells, water courses, roads and other applicable details and shall indicate the general topography.

(D) A general facility plot plan at a scale not greater than 200 feet to the inch with five (5) foot contour intervals shall be submitted. The general facility plot plan shall illustrate the following features:

(I) Facility boundaries, including any buffer zones proposed between the solid waste boundary and the property boundary;

(II) Points of access;

(III) Location of soil borings, groundwater monitor wells, and methane monitor wells;

(IV) Location of proposed trenches or area fill locations;

(V) Working area/perimeter fire lane;

(VI) Locations of any facility buildings to house equipment or for other uses;

(VII) Working area/perimeter fence location;

(E) Additional facility plot plans at the same scale as the general facility plot plan, shall be submitted as necessary to show orderly development and use of the facility through the life of the site. These plot plans shall contain the following information:

(I) Excavation plans for development of trenches or preparation of area fill locations.

(II) Development of temporary surface water diversion structures which may be necessary to

adequately control surface water run-on and run-off;

(III) Access to active waste disposal areas, including development of internal roads;

(IV) Daily cover stockpile locations;

(V) Topsoil storage pile locations;

(VI) Litter screen placement information;

(VII) Location of special waste management or disposal areas;

(VIII) Other details pertinent to the development and use of the facility.

~~(F) As an alternative to subsection (b) (iii) (E) of this section, which requires site development plans to be supplied for the life of the site, the applicant may submit detailed site development plans containing information specified in subsection (b) (iii) (E) but covering only the first permit term.~~

~~(G) For Type II facilities, site development information may be depicted on the general plot plan required in subsection (b) (iii) (D) of this section. For these facilities the administrator may waive the requirement to prepare sequential plot plans as required in subsection (b) (iii) (E) of this section.~~

(H) A map showing proposed final contours prepared at a scale no greater than 200 feet to the inch, with five (5) foot contour intervals, shall be submitted.

(I) Cross sections and/or drawing details shall be submitted with sufficient specifications to describe:

(I) Internal litter catch screens or fences;

(II) Working area/perimeter fencing;

- (III) Access roads;
- (IV) Trench or area fill method;
- (V) Special waste areas, where appropriate;
- (VI) Systems used for monitoring, collection, treatment and disposal of leachate, if required;
- (VII) Groundwater monitoring well design;
- (VIII) Methane gas venting and monitoring system;
- (IX) Surface and subsurface drain systems to control run-on and run-off and/or inflow;
- (X) All components of engineered containment systems, if applicable, which include, but are not limited to, liners, caps and berms;
- (XI) Any other design details requested by the administrator.

(~~J~~H) A copy of the recordkeeping log maintained during the operating life and closure/post-closure maintenance period shall be submitted.

(~~K~~I) Facilities for which engineered containment systems are required shall submit construction quality assurance/quality control (QA/QC) plans describing the following construction and testing characteristics:

(I) For engineered clay barrier layers, the QA/QC plan shall describe how clay moisture content will be maintained or adjusted, the technique by which lift thickness will be maintained, the manner in which clay lifts will be compacted, the method used to measure clay moisture content and density in the field during construction, and the frequency of moisture content

and density testing.

(II) For synthetic membranes, the QA/QC plan shall describe the method used to test 100% of all seams for leaks, the frequency of destructive testing for seam strength, the layout pattern for each roll of membrane material, the procedure to be followed for post-installation defect identification and repair, the results of testing or literature review which demonstrates the compatibility of the membrane material with the waste and/or waste leachate, and the procedures used to assure each roll of membrane material meets the manufacturer's specifications for material properties.

(III) For lateral drainage layers, the QA/QC plan shall describe the method used to assure achievement of the approved grain size uniformity and layer thickness for granular layers, the method by which drainage layers shall be installed without damaging any imbedded leachate collection system, leak detection system or membrane, and the installation procedure for the filter fabric or granular filter layer overlying the drainage layer.

(iv) The permit application shall contain information demonstrating compliance with the standards in Chapters 6, 7, 8, and/or 10, if applicable.

(c) Renewal application requirements:

(i) Renewal applications shall be submitted as required in Chapter 1, Section 2(e).

(A) Each renewal application ~~submitted in accordance with the requirements of subsection (a) of this section,~~ shall include a compilation of any available previous permit application materials and supplemental information updated and revised as necessary to fulfill the information requirements specified in subsection (b) of this section, except for (b)(iii)(A)(V) [mineral and surface ownership] and (b)(iii)(A)(VIII) [site suitability].

(B) Each renewal application submitted in

accordance with the requirements of Chapter 1, Section 2(e)(ii) shall include a copy of the approved permit application or the previous approved renewal permit application, with drawings and narrative updated and revised as necessary to document the facility operations and activities carried out during the previous permit ~~periods~~term. If such activities differed from those in the approved permit or previously approved renewal permit, the ~~narrative should~~application shall describe the minor changes and approved major amendments. The applicant shall have the option to submit copies of only the updated and revised portion of the previous application, if the revised and updated pages and drawings are appropriately numbered and dated to facilitate incorporation into the previous permit document.

(ii) All renewal applications shall contain the following information:

(A) Any necessary plan revisions for the upcoming permit renewal period. Any requests for approval of amendments ~~which describe major changes in facility operation;~~

(B) Detailed construction and operation specifications for the upcoming permit period, if such specifications were not included in an approved facility permit application ~~in accord with subsection (b)(iii)(F) of this section;~~

(C) Assessment of site life remaining. If less than five (5) years of capacity remains, a description of steps taken to secure a new facility or alternate waste management options shall be included;

(D) Description of intermediate reclamation efforts, with evaluation of revegetation results;

(E) A description of steps taken to mitigate or correct practices that have resulted in past operational deficiencies; and

(F) Any necessary information

demonstrating compliance with the standards in Chapters 6, 7, 8 and/or 10, if applicable.

(d) Closure permit application requirements:

(i) Closure permit applications shall be submitted as required in Section 2(a) of this chapter.

(A) Each closure permit application submitted in accordance with the requirements of Section 2(a) of this chapter, shall contain the following information in addition to the information required in subsection (d)(i)(B) of this section:

(I) A narrative describing the site operating history including the dates of operation, the disposal methods used and the types and amounts of waste accepted;

(II) A general facility plot plan at a scale not greater than 200 feet to the inch illustrating past areas of waste deposition, estimated dates of fill and any other pertinent features;

(III) Data on site geology and hydrology as specified in subsections (b)(iii)(A)(VII) and (b)(iii)(A)(IX) of this section;

(IV) A map of the site area as specified in subsection (b)(iii)(C) of this section;

(V) An evaluation of the facility's potential to impact surface water and groundwater quality, based on the hydrogeologic information and the facility's design and operating history.

(B) Each closure permit application shall contain a permit application form signed in the manner described in Sections 2(b)(i) and 2(b)(ii) of this chapter and the following information; a copy of the pertinent materials from the approved permit application or approved renewal permit application, revised and updated as necessary, may be used to fulfill these requirements:

(I) General site information specified in subsections (b)(iii)(A)(I) through (b)(iii)(A)(III) of this section;

(II) Environmental monitoring system information specified in subsection (b)(iii)(A)(XI) of this section;

(III) Closure/post-closure information specified in subsection (b)(iii)(A)(XII) of this section;

(IV) A final contour map specified in subsection (b)(iii)(H) of this section; and

(V) Any supporting documentation listed in subsections (b)(iii)(I) and (J) of this section that is pertinent to the closure/post-closure phase.

(ii) The closure permit application requirements shall contain information demonstrating compliance with the closure standards in Chapters 6, 7 and/or 8, if applicable.

(e) Permit terms:

~~(i) Type I sanitary landfill permits will be issued for a four (4) year term, and Type II sanitary landfill permits will be issued for an eight (8) year term.~~

~~(ii) Renewal permits for Type I sanitary landfills will be issued for four (4) year terms, and renewal permits for Type II sanitary landfills will be issued for eight (8) year terms.~~

(i) Effective July 1, 2012, new municipal solid waste landfill operating permits and renewal permits for existing municipal solid waste landfills shall be lifetime permits.

(iii) Closure permits ~~will~~shall be issued for a period which includes the time required to complete closure activities and the minimum post-closure term

specified ~~at~~ in Section 7 ~~(bq)~~ of this chapter. The closure permit period will extend until the administrator finds that the facility has been adequately stabilized and the environmental monitoring or control systems have demonstrated that the facility closure is protective of human health and the environment consistent with the purposes of the act.

(f) Financial assurance requirement: Any operator of a ~~sanitary~~ municipal solid waste landfill subject to the financial assurance requirements of Chapter 7 shall provide and maintain adequate assurance of financial responsibility as specified therein, prior to issuance of a permit by the director.

(g) Permit amendments constituting a major change: All amendments constituting a major change shall comply with the location, design and construction, operating, monitoring, financial assurance and closure standards of the applicable chapters of these rules and regulations. No amendment shall be implemented by the operator without the prior written authorization of the administrator.

(i) The operator shall submit two (2) complete paper copies and one (1) complete electronic copy of the proposed amendment. Permit amendments may be proposed independently or in conjunction with a permit renewal or closure permit application. Permit amendments may be proposed in conjunction with annual reports, but must be separately designated as amendments. Permit amendments proposed in conjunction with annual reports will be processed in accordance with Chapter 1, Section 3 of these rules. The application shall include a cover letter describing in detail the amendment sought. The application for amendment shall include revisions to the permit application sufficient to fully describe the proposed amendment including a revised table of contents and replacement text, plates, and/or drawings which are fully formatted and numbered for insertion into the permit application.

(ii) The administrator shall conduct a completeness review and notify the applicant within sixty (60) days of receipt of the application whether or not it

is complete. If the administrator deems the application incomplete, he or she shall so advise and state in writing to the applicant the information required. All items not specified as incomplete at the end of the first sixty (60) day period shall be deemed complete for the purposes of this subsection.

(A) If the applicant resubmits an application or further information, the administrator shall review the application or additional information within sixty (60) days of each submission and advise the applicant in writing if the application is complete.

(B) After the application is determined complete, the applicant shall give written notice of the application as required in Chapter 1, Section 2(b) (i)

(iii) The administrator shall review the application and unless the applicant requests a delay, advise the applicant in writing within ninety (90) days from the date of determining that the application is complete, that a proposed permit amendment is suitable for publication under Chapter 1, Section 2(b) (ii), or that the application is deficient, or that the application is denied. All reasons for deficiency or denial shall be stated in writing to the applicant. All items not specified as being deficient at the end of the first ninety (90) day period shall be deemed sufficient for the purposes of this subsection.

(A) If the applicant submits additional information in response to any deficiency notice, the administrator shall review such additional information within thirty (30) days of submission and advise the applicant in writing if a proposed permit amendment is suitable for publication, or that the application is still deficient, or that the application is denied.

(B) If the application is determined to be complete and demonstrates compliance with the applicable standards, the administrator shall prepare a proposed permit amendment. The applicant shall provide public notice as specified in Chapter 1, Section 2(b) (ii).

(C) If no hearing is requested, the director shall render a decision on the proposed permit amendment within thirty (30) days after completion of the notice period. If substantial written objections are received by the director by 5:00 pm on the last day of the public comment period, a public hearing will be held within twenty (20) days after the last day of the public comment period, unless a different schedule is deemed necessary by the council. The council or director shall publish notice of the time, date, and location of the hearing in a newspaper of general circulation in the county where the applicant plans to locate the facility or where the facility is located, once a week for two (2) consecutive weeks immediately prior to the hearing. The hearing shall be conducted as a contested case in accordance with the Wyoming Administrative Procedures Act, and right of judicial review shall be afforded as provided in that Act. The director shall issue or deny the permit amendment no later than fifteen (15) days from receipt of any findings of fact and decision of the environmental quality council.

(D) In granting permit amendments, the director may impose such conditions as may be necessary to accomplish the purpose of the act and which are not inconsistent with the existing rules, regulations, and standards.

### Section 3. Location Standards.

(a) New facilities: New ~~sanitary~~municipal solid waste landfills shall not be located in violation of the standards described in this section.

(i) Airport proximity: Facilities containing putrescible wastes capable of attracting birds are prohibited within 5,000 feet of any airport runway used by only piston-type aircraft, and within 10,000 feet of any airport runway used by turbojet aircraft. Effective April 5, 2000, new municipal landfill units must comply with Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century. The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century requires that after April 15, 2000, no new facility that

receives putrescible waste capable of attracting birds shall be constructed within 6 miles of a public airport that has received grants under 49 U.S.C. Chapter 471 and is primarily served by general aviation aircraft and regularly scheduled flights of aircraft designed for 60 passengers or less unless the Wyoming Department of Transportation, Aeronautics Division requests that the Administrator of the Federal Aviation Administration exempt the landfill from this requirement and the Administrator determines that such exemption would have no adverse impact on aviation safety. For the purposes of this section putrescible waste means solid waste which contains organic matter capable of being decomposed by microorganisms and of such a character and proportion as to be capable of attracting or providing food for birds.

(ii) Local zoning ordinances: Facility locations shall not be in conflict with local zoning ordinances or land use plans that have been adopted by a county commission or municipality.

(iii) Distance to residences and other buildings: Except upon a variance granted by the director in accord with W.S. 35-11-502(c), no facility greater than one (1) acre in size shall be located between 1,000 feet and one (1) mile of a public school except with the written consent of the school district board of trustees, or between 1,000 feet and one (1) mile of an occupied dwelling house except with the written consent of the owner. Additionally, facilities of any size shall not be located within 1,000 feet of any occupied dwelling house, school or hospital, and shall not be located within 300 feet of any building unless provisions have been made for protection from methane gas accumulation.

(iv) Distance to roads and parks:

(A) Except upon a variance granted by the director in accord with W.S. 35-11-502(c), no facility greater than one (1) acre in size shall be located between 1,000 feet and one-half ( $\frac{1}{2}$ ) mile of the center line of the right-of-way of a state or federal highway unless screened from view as approved by the administrator. Additionally, facilities of any size shall not be located within 1,000

feet of any interstate or primary highway right-of-way, unless the facility is screened from view by natural objects, plantings, fences or other appropriate means, and is authorized by the state highway commission in accord with provisions of the Junkyard Control Act, W.S. 33-19-103 et seq.

(B) Facilities shall not be located within 1,000 feet of any public park or recreation area unless the facility is screened from view by natural objects, plantings, fences or other appropriate means.

(v) Distance to drinking water sources: Except upon a variance granted by the director in accord with W.S. 35-11-502(c), no facility greater than one (1) acre in size shall be located between 1,000 feet and one-half ( $\frac{1}{2}$ ) mile of a water well permitted or certificated for domestic or stock watering purposes except with written consent of the owner of the permit or certificate. Additionally, facilities of any size shall not be located within 1,000 feet of any drinking water source such as a well or surface water intake.

(vi) Distance to other surface waters:

(A) Facilities shall not be located within 1,000 feet of any perennial lake or pond which is either naturally occurring, or which contains water used for any purpose not directly related to an industrial process.

(B) Facilities shall not be located within 300 feet of any industrial process water or storm water management pond.

(C) Facilities shall not be located within 300 feet of any perennial river or stream.

(vii) Floodplains: Facilities shall not be located within the boundaries of a 100-year floodplain.

(viii) Wetlands: Facilities shall not be located in wetlands.

(ix) Wild and Scenic Rivers Act: Facility locations shall not diminish the scenic, recreational and

fish and wildlife values for any section of river designated for protection under the Wild and Scenic Rivers Act, 16 USC 1271 et seq., and implementing regulations.

(x) National Historic Preservation Act: Facilities shall not be located in areas where they may pose a threat to an irreplaceable historic or archeological site listed pursuant to the National Historic Preservation Act, 16 USC 470 et seq. and implementing regulations, or to a natural landmark designated by the National Park Service.

(xi) Endangered Species Act: Facilities shall not be located within a critical habitat of an endangered or threatened species listed pursuant to the Endangered Species Act, 16 USC 1531 et seq., and implementing regulations, where the facility may cause destruction or adverse modification of the critical habitat, may jeopardize the continued existence of endangered or threatened species or contribute to the taking of such species.

(xii) Big game winter range/~~grouse breeding grounds~~: Facilities shall not be located within critical winter ranges for big game ~~or breeding grounds for grouse,~~ unless after ~~consultation with~~ considering information from the Wyoming Game and Fish Department, the administrator determines that facility development would not conflict with the conservation of Wyoming's wildlife resources.

(xiii) Fault areas: Facilities shall not be located within 200 feet of a fault that has had displacement in Holocene time.

(xiv) Avalanche areas: Facilities shall not be located in documented avalanche prone areas.

(xv) Hydrogeologic conditions: Facilities shall not be located in an area where the administrator, after investigation by the applicant, finds that there is a reasonable probability that solid waste disposal will have a detrimental effect on surface water or groundwater quality.

(xvi) Distance from incorporated cities or towns: Except upon a variance granted by the director in accord with W.S. 35-11-502(c), no facility greater than one (1) acre in size shall be located within one (1) mile of the boundaries of an incorporated city or town.

(xvii) Compliance with other standards: Facilities which are also subject to regulation under Chapters 6 or 8 of these rules and regulations shall not be located in violation of the standards in those chapters.

(b) Existing facilities:

(i) Applicability: Effective on the dates specified in paragraph (b)(ii) of this section, existing ~~sanitary~~ municipal solid waste landfills must make the following determinations demonstrating that the requirements of this paragraph have been met, place those determinations in the operating record of the facility, and notify the administrator that the determinations have been placed in the operating record:

(A) Airports: Existing facilities, new landfill ~~cells~~ units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not be located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used by only piston-type aircraft, unless the owner demonstrates to the administrator that the facilities, ~~cells~~ units, or area fills are designed and operated so that they do not pose a bird hazard to aircraft. Owners proposing to place solid wastes in new landfill ~~cells~~ units at existing facilities, or place solid wastes onto horizontal expansions of area fills at existing facilities which are located within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the federal aviation administration;

(B) Floodplains: Existing facilities, new landfill ~~cells~~ units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not

be located within the boundaries of a 100-year floodplain, unless the owner demonstrates to the administrator that the facility, ~~cell~~unit, or fill will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment;

(C) Wetlands: New landfill ~~cells~~units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not be located in wetlands unless the owner demonstrates to the administrator that:

(I) There is no practicable alternative location;

(II) There will not be a violation of any state or federal water quality standard, the Endangered Species Act of 1973, or the Marine Protection, Research, and Sanctuaries Act of 1972;

(III) The ~~cell~~unit or area fill will not cause or contribute to degradation of the wetlands, considering all factors necessary to demonstrate that ecological resources in the wetlands are sufficiently protected including:

(1) Erosion, stability, and migration potential of native wetland soils, muds and deposits used to support the unit;

(2) Erosion, stability, and migration potential of dredged and fill materials used to support the unit;

(3) The volume and chemical nature of the waste managed in the unit;

(4) Impacts on fish, wildlife, and other aquatic resources and their habitat from release of the waste;

(5) The potential effects of catastrophic release of waste to the wetland and the

resulting impacts on the environment;

(6) Any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected;

(IV) There will be no net loss of wetlands, considering any mitigation steps taken by the owner; and

(V) The owner has sufficient information to make a reasonable determination with respect to items (I) through (IV) of this subsection;

(D) Fault areas: New landfill ~~cells~~units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not be located within 200 feet (60 meters) of a fault that has had displacement in Holocene time, unless the owner demonstrates to the administrator that an alternative setback distance of less than 200 feet (60 meters) will prevent damage to the structural integrity of the ~~cell~~unit or area fill and will be protective of human health and the environment;

(E) Seismic impact zones: New landfill ~~cells~~units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not be located in seismic impact zones, unless the owner demonstrates to the administrator that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site;

(F) Unstable areas: ~~Existing facilities,~~ ~~n~~New landfill ~~cells~~units at existing facilities, and horizontal expansions of area fills at existing facilities, shall not be located in an unstable area unless the owner has demonstrated to the administrator that engineering measures have been incorporated into the facility's, ~~cell's~~unit's, or area fill's design to ensure that the integrity of the structural components of the facility, ~~cell~~unit, or area fill will not be disrupted. The demonstration must consider:

(I) On-site or local soil conditions that may result in significant differential settling;

(II) On-site or local geologic or geomorphologic features; and

(III) On-site or local human-made features or events (both surface and subsurface).

~~(ii) The location standards of paragraph (b) of this section are effective on the following dates:~~

~~\_\_\_\_\_ (A) October 9, 1993, for Type I sanitary landfills;~~

~~\_\_\_\_\_ (B) April 9, 1994, for Type I sanitary landfills which receive less than one hundred (100) tons per day of municipal solid wastes; and~~

~~\_\_\_\_\_ (C) October 9, 1997, for Type II sanitary landfills.~~

(c) Access roads: The Roads leading to ~~sanitary~~municipal solid waste landfills shall not be subject to the location standards described in this section.

Section 4. Design and Construction Standards. Each facility shall be designed and constructed in compliance with the standards listed in this section.

(a) Surveyed corners: All site boundary corners shall be surveyed and marked with permanent survey caps.

(b) Access restrictions:

(i) The working area of all facilities shall be fenced in such a manner as to discourage people and livestock from entering the facility and to contain litter within the facility. Additional fencing may be required to restrict access to reclaimed areas or other areas that may present public health and safety hazards.

(ii) All access roads shall be equipped with a gate which can be locked when the facility is unattended.

(c) Posting: Each point of access shall be identified by a sign, which shall be easily readable and shall be maintained in good condition, and which contains at a minimum the following information:

(i) The facility name;

(ii) The name and phone number of the responsible person to contact in the event of emergencies;

(iii) The hours of operation;

(iv) Wastes that are prohibited from disposal at the facility;

(v) A requirement to notify the landfill operator of any asbestos wastes.

(d) Access roads: Facility access roads shall be constructed to enable use under inclement weather conditions.

(e) Firelanes: All facilities shall have a fire lane which is a minimum of ten (10) feet wide around all active solid waste management units or within the perimeter fence.

(f) Buffer zones: All facilities shall have a buffer zone which is a minimum of twenty (20) feet within the facility perimeter fence.

(g) Topsoil: Topsoil from all disturbed areas shall be stripped and stockpiled in an area which will not be disturbed during facility operation. These stockpiles shall be identified by signs, and vegetated as required for stabilization. This topsoil will be used for site reclamation. Topsoil shall not be removed from the facility without written authorization from the administrator.

(h) Structural stability: Engineering measures

shall be incorporated into the landfill design and construction to ensure stability of structural components in unstable areas, fault areas, and seismic impact zones. Landfill designs in unstable areas shall consider the factors described in Section 3(b)(i)(F). Landfill designs in seismic impact zones shall consider the factors described in Section 3(b)(i)(E).

(i) Surface water structures: Surface water structures shall be designed and constructed to control surface water run-on and run-off as follows:

(i) Temporary structures anticipated to be used for periods less than five (5) years shall accommodate a 25-year, 24-hour precipitation event;

(ii) Permanent structures and temporary structures anticipated to be used for five (5) years or longer shall accommodate a 100-year, 24-hour precipitation event.

(iii) Sediment control structures shall be designed and constructed in accordance with Chapter 11 of the Water Quality Division Rules and Regulations.

(j) Engineered containment system requirement: The following engineered containment system requirements are set out in W.S. 35-11-526 and W.S. 35-11-527.

(i) Performance based design and performance based evaluation in consideration and approval of engineered containment systems as part of municipal solid waste landfill permits.

(A) A person submitting an application for a permit pursuant to W.S. 35-11-502 which contains a performance based design for a municipal solid waste landfill that does not incorporate an engineered containment system utilizing a composite liner and leachate collection system, shall submit a report with the application. The report shall contain the applicant's findings as to the proposed performance based design's compliance with applicable state and federal laws and regulations. The report shall contain scientific and

engineering data supporting the implementation of the proposed design.

(B) In reviewing scientific and engineering data related to a permit application and report containing a performance based design which does not incorporate an engineered containment system utilizing a composite liner and leachate collection system, the administrator shall prepare a detailed performance evaluation based on applied scientific and engineering data that adheres to W.S. 35-11-527. The administrator shall determine in the performance evaluation whether to validate or invalidate the performance based design or an alternative performance based standard for landfill design contained in the permit application. The administrator shall base the performance based evaluation on acceptable applied scientific and engineering data and an analysis of that data using statistical procedures, including statistical power, when applicable.

(C) The applicant or other interested party may appeal the administrator's determination contained in a performance based evaluation of a permit pursuant to W.S. 35-11-502. If the council determines that the performance based evaluation does not accurately or adequately identify and evaluate all the data and criteria required under this section and W.S. 35-11-527, the council shall direct the administrator to reevaluate his determination. A decision by the council that the performance based evaluation is accurate and adequate shall be a final decision of the agency pursuant to the Wyoming Administrative Procedure Act.

(ii) Performance based design evaluation criteria for municipal solid waste landfill units.

(A) New municipal solid waste landfill units and lateral expansions approved by the administrator under W.S. 35-11-502 and 35-11-526 shall be constructed:

(I) In accordance with a performance based design approved by the administrator in a performance based evaluation pursuant to W.S. 35-11-526. Any performance based design approved must ensure that the

concentration values for pollutants listed in the National Primary Drinking Water Regulations, 40 C.F.R. Part 141, will not be exceeded in the uppermost aquifer at the relevant point of compliance as determined under subsection (c) of this section; or

(II) With an engineered containment system that utilizes a composite liner and a leachate collection system that is designed and constructed to maintain less than a thirty (30) centimeter depth of leachate over the liner.

(B) When approving a design that complies with paragraph (a)(i) of this section, in addition to the requirements of W.S. 35-11-526 the administrator shall consider other relevant factors, including, but not limited to:

(I) The hydrogeologic characteristics of the facility and surrounding land;

(II) The climatic factors of the area; and

(III) The physical and chemical characteristics and volume of the leachate.

(C) The relevant point of compliance specified by the administrator for the allowable concentration values for pollutants under paragraph (a)(i) of this section shall be no more than one hundred fifty (150) meters from the waste management unit boundary and shall be located on land owned by the owner of the municipal solid waste landfill. In determining the relevant point of compliance, the administrator shall consider at least the following factors:

(I) The hydrogeologic characteristics of the facility and surrounding land;

(II) The physical and chemical characteristics and volume of the leachate;

(III) The quantity, quality and

direction of flow of ground water in the area;

(IV) The proximity and withdrawal rate of ground water users;

(V) The availability of alternative sources of drinking water supplies;

(VI) The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water and whether the ground water is currently used or reasonably expected to be used for drinking water;

(VII) Public health, safety and welfare effects; and

(VIII) Practicable capability of the owner or operator.

~~\_\_\_\_\_ (i) Applicability: Effective on the dates specified in paragraph (j) (ii) of this section, new Type I sanitary landfills, new landfill cells at existing Type I sanitary landfills, and horizontal expansions of area fills at existing Type I sanitary landfills must meet the requirements of Sections 4(j) and 4(k) of this chapter, unless the operator demonstrates to the administrator that all of the following conditions are met:~~

~~\_\_\_\_\_ (A) Native soils underlying the landfill are sufficiently impermeable to prevent potential contamination of groundwater through operation of the facility; and~~

~~\_\_\_\_\_ (B) Waste types or operating practices minimize the potential for contamination of underlying soils and/or groundwater; and~~

~~\_\_\_\_\_ (C) Site hydrologic conditions are sufficient to protect groundwater from contamination; and~~

~~\_\_\_\_\_ (D) The facility receives less than 500 short tons of unprocessed household refuse or mixed household and industrial refuse per operating day, on a~~

~~monthly average. Containment systems at these facilities shall include leachate collection and leak detection systems.~~

~~(ii) The engineered containment system requirements of paragraph (i) of this section are effective on the following dates:~~

~~(A) October 9, 1993, for Type I sanitary landfills; and~~

~~(B) April 9, 1994, for Type I sanitary landfills which receive less than one hundred (100) tons per day of municipal solid wastes.~~

~~(iii) For Type II facilities, the administrator may determine, based on consideration of the factors in paragraph (j)(i) of this section, that an engineered containment system is required to protect public health and the environment. Following such a determination, the administrator shall notify the facility owner or operator and shall specify an effective date for the determination. The owner or operator shall be required to comply with the requirements of paragraph (j) of this section for any new trench or expansion of any new area fill at the facility constructed after the effective date of the administrator's notification.~~

(k) Design/construction of engineered containment systems: Engineered containment systems shall be designed and constructed to meet these standards:

(i) Engineered barrier layers forming caps and/or liners constructed of clay shall have a maximum vertical hydraulic conductivity of  $1 \times 10E-7$  cm/sec (0.1 ft/yr). These barrier layers shall have a minimum thickness of 24 inches. Clay barrier layers shall be constructed in lifts which do not exceed six (6) inches in thickness, and uniform compaction of these lifts shall be assured through the use of appropriate equipment. Clay barrier layers forming a cap shall be overlain by a layer of soil which is of suitable thickness to protect the clay barrier layer from frost penetration.

(ii) All engineered containment system components shall be supported by material of sufficient bearing strength to prevent subsidence and failure of any component. This bearing strength shall be documented through materials testing as specified by the administrator.

(iii) Synthetic membranes used as part of any containment system shall be of a material and thickness which is suitable for the intended use, but in no case shall be less than 0.030 inches thick (30 mils). All synthetic membranes shall be underlain by a suitable bedding material.

(iv) Lateral drainage layers included in composite cap and liner system designs shall be composed of either granular material or a synthetic drain net of suitable lateral permeability to promote acceptable drainage, as approved by the administrator. Lateral drainage layers shall be protected from soil clogging by either a synthetic filter fabric or a graded granular layer of a design approved by the administrator.

(v) Leachate collection systems installed as part of an engineered containment system shall be sized and designed to efficiently collect and transport leachate. Leak detection systems shall be designed to efficiently identify failure of the overlying barrier layer.

(vi) The quality assurance/quality control (QA/QC) plan for engineered containment systems shall assure adequate construction and testing of the containment system components, as called for in the design specifications in the facility plan.

(vii) Detailed design plans, including but not limited to plans for liners, leachate collection and management systems, caps and associated QA/QC plans shall be submitted as part of the lifetime permit or renewal as applicable. Additional or modified detailed design plans for engineered containment systems shall be submitted as a minor change unless a design change is proposed that constitutes a major change.

(l) Volumetric capacity limit for refuse ~~cells~~units with engineered containment systems: No refuse ~~cell~~unit for which an engineered containment system is required shall have a volumetric capacity of greater than 1,000,000 cubic yards, unless the operator can demonstrate that the liner leak detection system is capable of isolating the location of any leak which occurs in the primary liner.

(m) Slope stability for excavations: Trench walls shall not exceed a ratio of 1.5:1 (horizontal:vertical) unless a slope stability analysis demonstrates steeper slopes can be safely constructed and maintained. This analysis may be based on site specific soil stability calculations or Wyoming Occupational Safety and Health Administration regulations for excavations.

(n) Litter control structures: Litter control structures shall be designed and constructed to control litter within the facility.

(o) Methane control systems for on-site structures: All structures on the landfill facility will be designed to prevent the accumulation of methane such that the concentration of methane gas in facility structures does not exceed twenty-five percent (25%) of the lower explosive limit (LEL) for methane.

(p) Special waste management standards: Any facility used for the management of a special waste regulated under Chapter 8, Special Waste Management Standards, shall also comply with the applicable design and construction standards established under Chapter 8.

(q) Transfer, treatment and storage facility standards: Any facility used for the transfer, treatment or storage of solid wastes shall also comply with the applicable design and construction standards established under Chapter 6.

Section 5. Operating Standards. All facilities shall be operated in accordance with the standards described in this section.

(a) Qualified Solid Waste Manager: Each facility shall be managed by a qualified solid waste manager. In the event that a qualified solid waste manager terminates employment for any reason, a new solid waste manager shall be designated within three (3) months of such termination. For any facility which is constructed, operated and monitored in compliance, the solid waste manager's qualifications shall be presumed to be adequate. For any facility which is not being constructed, operated, or monitored in compliance, the solid waste manager may be required to complete additional training and/or demonstrate his or her qualifications by written or oral examination. A qualified solid waste manager shall:

(i) Possess a complete working knowledge of the facility construction, operating and monitoring procedures, as specified in the permit application and the permit letter issued by the director.

(ii) Attend the classroom or field training program described in the approved permit application, which shall include training for the identification of PCB wastes and hazardous wastes regulated under Subtitle C of the Federal Resource Conservation and Recovery Act and the state hazardous wastes rules and regulations.

(iii) Attend any training course sponsored by the administrator, which the administrator requires to provide training on changes to state or federal solid waste rules or guidelines. For any such mandatory training course, the administrator shall provide each operator with a minimum of ninety (90) days notice prior to the scheduled training course.

(iv) Comply with the requirements of this subsection:

(A) No later than six (6) months following assumption of responsibility for operating a facility, for a new solid waste manager; or

(B) No later than six (6) months following the date the facility is permitted under this chapter, for an existing solid waste manager.

(b) Copy of plan: A copy of the operating plan shall be available at the facility when landfill personnel are on-site.

(c) Equipment/backup equipment: All facilities shall have equipment that is adequate to deposit, compact and cover refuse. In the event of equipment breakdown, backup equipment shall be obtained to insure compliance with the compaction and covering requirements of these rules and regulations.

(d) Access Restrictions:

(i) Public access shall be controlled and unauthorized vehicular traffic and illegal dumping of wastes shall be prevented by using artificial barriers, natural barriers, or both, as appropriate to protect human health and the environment.

(ii) Effective on the dates in paragraph (f)(iii) of this section, facility access gate(s) shall be closed and locked to restrict access by the public to the active disposal area of the facility at the end of each operating day.

(iii) The requirements of paragraph (f)(ii) of this section shall be effective on:

(A) October 9, 1993, for Type I ~~sanitary~~municipal solid waste landfills;

(B) April 9, 1994, for Type I ~~sanitary~~municipal solid waste landfills receiving less than one hundred (100) tons per day of municipal solid wastes; and

(C) October 9, 1997, for Type II ~~sanitary~~municipal solid waste landfills.

(e) Liquid wastes: Bulk or noncontainerized liquid wastes may not be placed in a ~~sanitary~~municipal solid waste landfill, unless the facility has been permitted by the director to receive such wastes at a separate solid

waste management unit or unless the wastes have been treated to pass the paint filter liquids test. Containerized liquid wastes that are not household wastes, and are in containers that are larger than those normally disposed by households, may not be placed in a ~~sanitary~~municipal solid waste landfill unless the facility has been permitted by the director to receive such wastes and the wastes have been treated to pass the paint filter liquids test.

(f) Hazardous wastes:

(i) No ~~sanitary~~municipal solid waste landfill may accept regulated quantities of hazardous wastes. Hazardous waste excluded under Subtitle C of the Federal Resource Conservation and Recovery Act and Chapter 2 of the state hazardous waste rules and regulations may be accepted if specific authorization is granted in writing by the administrator;

(ii) The facility operator shall implement a program of random inspections of incoming solid wastes or take other steps to detect and prevent the disposal of regulated hazardous wastes and PCB wastes; and

(iii) The facility operator shall promptly notify the administrator if regulated hazardous wastes or PCB wastes are discovered at the facility.

(g) Dead animals: Dead animals shall be covered daily whenever carcasses are disposed. Dead animals may be disposed with municipal solid waste or in a separate area.

(h) Traffic: Signs shall be posted to direct traffic to the proper area for dumping.

(i) Salvaging: Salvaging, if permitted, shall be conducted in such a manner as not to interfere with normal operations.

(j) Burning: No open burning of solid waste is allowed, with the exception of infrequent burning of clean wood, tree trimmings, brush, agricultural wastes,

silvicultural wastes, land clearing debris, diseased trees, or debris from emergency cleanup operations; this exception is valid only when the operator has obtained a permit from the Air Quality Division.

(k) Fire protection and other emergency protection measures: Facilities shall maintain, at a minimum, an unobstructed ten (10) foot firelane around all solid waste management units or within the perimeter fence. The landfill personnel shall have access to portable fire extinguishers when on-site. Depending on the facility location, personnel may be required to have a communication system (radio, telephone, etc.) with which to alert the local fire department.

(l) Litter: Each facility shall maintain an effective routine litter collection program. These routine programs shall take place both within the landfill perimeter, as well as off-site. Special operating practices may be required for use during high wind periods.

(m) Vectors: On-site populations of disease vectors shall be prevented or controlled using techniques appropriate for the protection of human health and the environment.

(n) Dust and odors: Adequate measures shall be taken to minimize dust and odors.

(o) Working face: The working face shall be confined to the smallest practical area using signs and physical barriers, if necessary. All solid wastes shall be deposited in a manner to limit windblown litter.

(p) Compaction: All solid waste shall be effectively compacted in order to reduce long-term settling and conserve landfill space.

(q) Routine cover:

(i) Effective October 9, 1995, Type I ~~sanitary~~ municipal solid waste landfills shall cover all solid waste, excluding those wastes listed in paragraph

(s) (ii) of this section, which have been received during the day with an approved cover material at the end of each day that the facility is open for the receipt of wastes.

(ii) Effective October 9, 1997, Type II ~~sanitary~~ municipal solid waste landfills shall install an approved cover material over all solid waste, excluding those wastes listed in paragraph (q) (iii) of this section, which have been received as per the following schedule:

(A) At the end of each day that the facility is open to the public if the facility accepts for disposal more than ten (10) tons of municipal solid wastes daily;

(B) A minimum of once every seven (7) days if the facility accepts for disposal an average of less than ten (10) but more than three (3) tons of municipal solid wastes daily;

(C) A minimum of once every sixteen (16) days if the facility accepts for disposal an average of less than three (3) tons of municipal solid wastes daily;

(D) Prior to October 9, 1997, Type II ~~sanitary~~ municipal solid waste landfills shall be subject to the minimum periodic soil cover requirements specified in Section 7 of Chapter 15 of these rules.

(iii) Solid wastes which are not subject to the routine cover requirements of this paragraph are:

(A) Brush, tree trimmings, and clean wood intended to be burned periodically under authority of Section 5(k) of this chapter;

(B) Scrap tires managed in compliance with the requirements of Chapter 8 of these rules;

(C) Inert construction/demolition debris, which is to be covered as described in the facility permit application and subject to any permit limitation;

(D) White goods, cars, or other metallic

wastes being stored for shipment to a metal recycler, if stored as described in the facility permit application;

(E) Petroleum contaminated soils being managed in compliance with the requirements of Chapter 8 of these rules;

(F) Friable asbestos wastes being managed in compliance with the requirements of Chapter 8 of these rules; and

(G) Any other solid wastes which the administrator determines to be unlikely to cause, or to contribute to, disease vectors, fires, odors, blowing litter, and scavenging.

(iv) An approved cover material shall be:

(A) Any cover including no less than six (6) inches of compacted soil or any alternative material approved by the administrator to adequately control infiltration, disease vectors, fires, odors, blowing litter, and scavenging;

(B) For balefills, no less than six (6) inches of compacted soil, or any alternative material approved by the administrator to adequately control disease vectors, fires, odors, blowing litter, and scavenging, applied to the top and sides of an active balefill disposal area; balefill operations shall not be required to cover the vertical working face of the balefill facility, unless required by the administrator to control litter, fire, odor, disease vectors, or scavenging.

(v) At any facility where an alternate daily routine cover material has been approved for use by the administrator, the owner or operator shall adequately compact all wastes and apply no less than six (6) inches of compacted soil at least once every thirty (30) calendar days, as a fire control measure.

(r) Intermediate cover: For any area where wastes will not be disposed for a period of 180 days, that area

shall be covered with the required six (6) inches of cover material and an additional twelve (12) inches of intermediate cover.

(s) Phased reclamation: All completed refuse fill areas shall be promptly reclaimed with final cover, topsoil and revegetation in order to stabilize the landfill surface and reduce the potential for leachate generation.

(t) Methane migration:

(i) Facilities shall be operated such that the concentration of methane gas in facility structures and at the facility boundary does not exceed twenty-five percent (25%) of the lower explosive limit (LEL) for methane. If methane levels exceeding the limits specified in this paragraph are detected, the operator must:

(A) Immediately notify the administrator and take steps to protect human health

(B) Within seven (7) days of detection, place a copy of the methane test data in the operating record, and a written description of the steps taken to protect human health; and

(C) Within sixty (60) days of detection, implement a remediation plan which has been approved by the administrator, and place a copy of that plan in the operating record.

(ii) The administrator may establish alternative schedules for demonstrating compliance with the requirements of paragraphs (t)(i)(B) and (t)(i)(C) of this section.

(u) Surface water contact: Standing or running water shall not be allowed to come into contact with solid waste. Adequate measures shall be taken to prevent and/or alleviate ponding of water over filled areas. Surfaces shall be graded to promote lateral surface water run-off.

(v) Surface water discharges: Facilities shall be

operated such that leachate, contaminated groundwater, and/or surface water run-off from the active portion of the facility is not allowed to enter any waters of the United States, either on-site or off-site, unless authorized by a National Pollutant Discharge Elimination System (NPDES) permit issued pursuant to the Clean Water Act. Facilities shall not be operated to cause a violation of any requirement of the Clean Water Act, including Sections 402 pertaining to NPDES permits, and Sections 208 or 319 pertaining to area-wide or state-wide nonpoint source discharge water quality management plans.

(w) Groundwater contact: Wastes shall not be allowed to be placed in contact with groundwater.

(x) Groundwater discharges: Solid waste disposal facilities shall not be allowed to alter groundwater quality, as determined by groundwater monitoring.

(y) Recordkeeping:

(i) The following records shall be maintained at the facility or an approved alternative location and available for inspection and copying as specified by Chapter 1, Section 1(g):

(A) Log of litter collection activities specifying the dates and areas of litter collection;

(B) Log of refuse compaction and covering procedures specifying the dates on which compaction and covering operations were conducted, areas compacted and covered;

(C) Types and disposition of special wastes, specifying the volume, date of disposition, and source of waste;

(D) Records of waste sold or otherwise salvaged;

(E) Record of any problems causing operations to cease, including but not limited to fire or equipment failure;

(F) Copy of the department permit letter;

(ii) The owner or operator shall maintain through the end of the post-closure period, in addition to the records required in paragraph (y)(i) of this section, an operating record which shall contain the following information:

(A) Any permit application prepared under Section 2(b), 2(c), or 2(d) of this chapter;

(B) If not contained in the permit application, any location restriction demonstration which is required under Section 3(b) of this chapter;

(C) Log of random inspections or other screening activities for regulated hazardous wastes and PCB wastes specifying the date, time, and name(s) of the inspection personnel, as required under Section 5(f)(ii) of this chapter, and any notifications to the administrator under Section 5(f)(iii) of this chapter;

(D) Records of training of landfill operators to detect hazardous wastes and PCB wastes required under Section 5(a)(ii) of this chapter;

(E) Methane monitoring results prepared under Section 6 of this chapter, and any methane notification or remediation plan prepared under Section 5(t) of this chapter;

(F) Groundwater monitoring results, and any other groundwater demonstration, certification, or finding not already contained in the permit application, which is required under this chapter;

(G) As-built specifications for length, width and depth of trenches, and location;

(H) Dates when trenches completed, and contents of the trench;

(I) Closure and post-closure plans, if not already contained in the permit application, and any

monitoring, testing, or analytical data required in the plans;

(J) Any cost estimates and financial assurance documentation required under Chapter 7 of these rules and regulations;

(K) Any information demonstrating the classification of the landfill as a Type I or Type II landfill as defined in Chapter 1, Section 1(e) of these rules and regulations; and

(L) If not contained in the permit application, any engineered containment demonstration which is required under Section 4(j) of this chapter.

(M) Dates when reclamation activities take place.

(z) Special waste management standards: Any facility used for the management of a special waste regulated under Chapter 8, Special Waste Management Standards, shall also comply with the applicable operating standards established under Chapter 8.

(aa) Transfer, treatment and storage facility standards: Any facility used for the transfer, treatment or storage of solid wastes shall also comply with the applicable operating standards established under Chapter 6.

(bb) Annual reports:

(i) Facilities with lifetime permits:

Effective January 1, 2012, every operator shall file an annual report with the administrator on or within thirty (30) days prior to the anniversary date of each lifetime permit. The report shall include:

(A) The facility name, the name and address of the operator and the permit number;

(B) A report in such detail as the administrator shall require supplemented with maps, cross sections, aerial photographs, photographs or other

material indicating:

(I) The extent to which the landfill operations have been carried out;

(II) The progress of all landfill work;

(III) The extent to which regulatory requirements, expectations and predictions made in the original permit or any previous annual reports have been fulfilled, and any deviation there from, including but not limited to the capacity of landfill used, the results of any environmental monitoring, any remediation required or completed and the remaining usable municipal solid waste landfill capacity.

(C) A revised schedule or timetable of landfill operations and an estimate of the available capacity to be affected during the next one (1) year period.

(ii) Upon receipt of the annual report the administrator shall make such further inquiry as deemed necessary. If the administrator objects to any part of the report or requires further information he shall notify the operator as soon as possible and shall allow a reasonable opportunity to provide the required information, or take such action as necessary to resolve the objection.

(iii) Within forty-five (45) days after the receipt of the annual report the administrator shall conduct an inspection of the landfill. A report of this inspection shall be made a part of the operator's annual report and a copy shall be delivered to the operator.

(iv) Within sixty (60) days after receipt of the annual report, inspection report and other required materials, if the administrator finds the annual report in order and consistent with the landfill operation plan and solid waste management plan as set forth in the permit, or as amended to adjust to conditions encountered during landfill operations as provided by law, the director shall

determine if any adjustment is necessary to the size of the bond required pursuant to W.S. 35 11 504.

(v) Landfill gas reporting: The following information related to landfill gas emissions shall be reported annually in a format specified by the administrator and may be part of the annual report set forth in this subsection:

(A) The maximum design capacity of the landfill in megagrams (Mg) and cubic meters (m3) of waste, including any modifications or expansions in the last year which have increased or decreased the maximum design capacity in megagrams (Mg) and cubic meters (m3) of waste. If the design capacity is converted from mass to volume or volume to mass, the calculations must be provided. Information regarding the site-specific waste density and how it was estimated must also be provided.

Section 6. Monitoring Standards. All facilities required to institute monitoring shall meet the standards described in this section.

(a) Collection and management of samples: Groundwater, soil core, vadose zone, and decomposition gas samples shall be collected and managed in accordance with department guidance or equivalent methods approved by the administrator.

(b) Groundwater monitoring:

(i) Except as provided in paragraph (b) (i) (A) of this section, Type I landfills shall comply with the following groundwater monitoring requirements:

(A) Applicability:

(I) The administrator may suspend the groundwater monitoring requirements of paragraph (B) of this section if the owner or operator demonstrates that there is no potential for migration of hazardous constituents from the facility to the uppermost aquifer. This demonstration must be made by a qualified scientist or engineer, and must consider:

(1.) Site-specific field measurements, and information about the specific wastes to be disposed at the facility; and

(2.) Contaminant fate and transport predictions, including use of the hydrologic evaluation of landfill performance model, which maximize contaminant migration and consider impacts on human health and the environment.

(II) Owners and operators of Type I landfills must comply with the requirements of paragraph (b) of this section as follows, unless an alternate schedule is approved by the administrator under paragraph (b) (i) (A) (III) of this section:

(1.) Facilities less than one (1) mile from a drinking water intake or well, by October 9, 1994;

(2.) Facilities less than two (2) miles but greater than one (1) mile from a drinking water intake or well, by October 9, 1995;

(3.) Facilities greater than two (2) miles from a drinking water intake or well, by October 9, 1996; and

(4.) New facilities must be in compliance before wastes are deposited in the facility.

(III) The administrator may establish schedules of compliance for individual existing solid waste disposal facilities with the requirement of paragraph (b) (i) of this section, provided that half of all existing facilities are in compliance by October 9, 1994 and all are in compliance by October 9, 1996. The administrator shall consider potential risks to human health and the environment in establishing an alternate schedule of compliance for an individual facility.

(IV) Once established at a facility, the groundwater monitoring program shall be conducted

throughout the active life and post-closure care period for the facility, unless modified by the administrator under paragraphs (b) (i) (D) or (b) (i) (E) of this section.

(V) The administrator may establish an alternate schedule for compliance with any deadline specified in paragraphs (b) (i) (B), (b) (i) (C), (b) (i) (D), or (b) (i) (E) of this section, or Section 8(c) of this chapter.

~~(VI) The groundwater monitoring requirements of paragraph (b) (i) of this section do not apply to the following facilities:~~

~~(1.) Type I landfills receiving one hundred (100) tons per day or less of solid wastes which ceased receiving wastes before April 9, 1994, and~~

~~(2.) Type I landfills receiving greater than one hundred (100) tons per day of solid wastes which ceased receiving wastes before October 9, 1993.~~

(B) Groundwater monitoring systems:

(I) A groundwater system must be installed which consists of a sufficient number of wells to monitor water from the uppermost aquifer which may be affected by leakage from the facility. The system must be capable of monitoring background and downgradient water quality. Well locations must be approved by the administrator, and downgradient wells shall be placed in locations ~~as close as possible but in no case greater than~~ within 150 meters ~~from~~ of the ~~disposal facility waste boundary~~ waste management unit boundary on land owned, leased, or otherwise controlled by the operator.

(II) The administrator may approve a groundwater monitoring system designed to monitor groundwater from the facility, in lieu of individual waste disposal trenches, if the system is determined to be capable of adequately detecting groundwater pollution. In approving a facility-wide groundwater monitor system, the administrator shall consider:

(1.) Number, spacing, and orientation of the individual waste units at the facility;

(2.) Hydrologic setting;

(3.) Site history and design;  
and

(4.) Type of waste accepted at the individual waste units at the facility.

(III) The design of the groundwater monitoring system must be based on site-specific information on aquifer thickness, aquifer properties, groundwater flow direction and rate (including seasonal variations), and on geologic information on the soils, any aquitards, aquicludes, or confining formations, at the site. The design of the system must be approved by the administrator. The owner or operator must include the system design information in the facility operating record, within fourteen (14) days of the date of approval of the system design by the administrator.

(C) Groundwater sampling and analysis requirements:

(I) Each facility must have an approved groundwater sampling and analytical plan and maintain that plan as a part of the facility permit application. The plan must address:

(1.) Sample collection;

(2.) Sample preservation and shipment;

(3.) Analytical procedures;

(4.) Chain of custody control;  
and

(5.) Quality assurance and quality control.

(II) The groundwater sampling and analysis methods must be appropriate and accurate. Sample handling procedures shall be as required by the administrator. Groundwater samples shall not be field filtered prior to laboratory analysis.

(III) Groundwater elevations must be measured in each well prior to purging for sample collection, each time groundwater is sampled. The owner or operator must determine groundwater flow direction at each sampling event. The owner or operator must measure or calculate groundwater flow rate(s) as appropriate to establish an adequate groundwater monitoring system, or when requested to do so by the administrator.

(IV) The owner or operator must establish background water quality in a hydraulically upgradient or other background well approved by the administrator.

(V) Prior to conducting the statistical analysis of groundwater data, the owner or operator shall collect a sufficient number of samples to meet the requirements of the statistical analysis procedure selected under paragraph (b) (i) (C) (VI) of this section.

(VI) The owner or operator must include in the permit application a description of the statistical method to be used to evaluate groundwater quality data. The statistical test shall be conducted separately for each hazardous constituent in each well. The owner or operator may select any of the following statistical analysis procedures:

(1.) A parametric analysis of variance followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent;

(2.) An analysis of variance

based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent;

(3.) A tolerance or prediction interval procedure in which an interval for each distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit;

(4.) A control chart approach that gives control limits for each constituent; or

(5.) Another statistical method approved by the administrator.

(VII) Any statistical method chosen under paragraph (b) (i) (C) (VI) of this section shall comply with the following performance standards:

(1.) The method shall be appropriate for the distribution of chemical parameters or constituents. If the distribution is not normal, then the data should be transformed or a distribution-free theory test should be used. If the distributions for different constituents differ, more than one statistical method may be needed;

(2.) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment-wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts;

(3.) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values must be approved by the administrator;

(4.) If a tolerance interval or a predictional interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be approved by the administrator;

(5.) Any data reported as below detection limits shall be entered into the statistical analysis as a value equal to one-half the practical quantitation limit (PQL) for the constituent. The PQL shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility; and

(6.) If approved by the administrator, the statistical method may include procedures to adjust data to account for seasonal and spatial variability, as well as temporal correlation.

(VIII) The owner or operator must determine whether or not there is a statistically significant increase over background values for each parameter or constituent required in the particular groundwater monitoring program that applies to the facility under paragraph (b) (i) (D) or (b) (i) (E) of this section, as follows:

(1.) The owner or operator must compare the groundwater quality of each parameter or constituent at each monitoring well using the approved statistical method; and

(2.) Within thirty (30) days after completing sampling and analysis, the owner or operator must determine whether there has been a statistically significant increase over background at each monitoring well.

(D) Detection monitoring:

(I) Each facility shall institute a detection monitoring program by sampling each well at least semiannually, and testing each sample for the constituents specified in Appendix A, unless the administrator:

(1.) Deletes a constituent because the owner or operator shows that it is not likely to be present in the waste disposed at the facility;

(2.) Establishes an alternate list of inorganic constituents which provide a reliable indication of inorganic releases from the facility, considering the following factors:

a. The types, quantities, and concentrations of constituents in wastes managed at the facility;

b. The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the facility;

c. The detectability of indicator parameters, waste constituents, and reaction products in the groundwater; and

d. The concentration or values and coefficients of variation of monitoring parameters or constituents in the groundwater background;  
or

(3.) Determines that a different, but no less frequent than annual, monitoring schedule is appropriate, considering the following factors:

a. Lithology of the aquifer and unsaturated zone;

b. Hydraulic conductivity

of the aquifer and unsaturated zone;

c. Groundwater flow rates;

d. Minimum distance between the edge of the waste boundary at the facility and the downgradient monitor well(s); and

e. The classification of the aquifer under Chapter 8 of the Water Quality Rules and Regulations.

(II) A minimum of four (4) individual samples is required to be collected and analyzed from each well (background and downgradient) during the first year of sampling. At least one (1) sample must be collected and analyzed from each well during subsequent sampling events, which must be conducted on the sampling frequency determined under paragraph (b) (i) (D) (I) of this section.

(III) If a statistically significant difference in water quality between background and any downgradient well is detected, the operator must:

(1.) Notify the administrator and place a note in the facility operating record within fourteen (14) days and start assessment monitoring within ninety (90) days as provided in paragraph (b) (i) (E) of this section; or

(2.) Demonstrate to the administrator that the statistically significant water quality difference is not due to the solid waste disposal facility, but that the difference is due to another source of pollution, error in sampling, analysis or statistical evaluation, or natural variation in groundwater quality. The owner or operator shall prepare a report documenting this demonstration, and following approval by the administrator, place the report in the operating record for the facility. If the report is approved, the owner or operator shall continue detection monitoring as required in paragraph (b) (i) (D) of this section. If, after ninety (90) days, a successful demonstration is not made, the owner or operator must initiate an assessment monitoring

program as required in paragraph (b) (i) (E) of this section.

(E) Assessment monitoring:

(I) Assessment monitoring is required whenever a statistically significant increase over background water quality has been detected under paragraph (b) (i) (D) of this section.

(II) Within ninety (90) days of triggering an assessment monitoring requirement, and annually thereafter, the owner or operator must sample and analyze all downgradient monitor wells for all Appendix B constituents. A minimum of one (1) sample from each downgradient well must be collected during each annual sampling event. If any Appendix B constituent is detected in any downgradient well, the owner or operator must promptly collect a minimum of four (4) additional independent samples from each background and downgradient well. These samples must be analyzed for each Appendix B constituent which was detected in the initial assessment monitoring sampling event.

(III) The administrator may specify an appropriate subset of wells to be sampled and analyzed during assessment monitoring, and may delete Appendix B constituents from the monitoring requirements if it can be shown that the deleted constituents are not reasonably expected to be in or derived from the waste contained in the facility. The administrator may also specify an appropriate alternate frequency for the collection of the additional independent samples under paragraph (b) (i) (E) (II) of this section, considering the following factors:

(1.) Lithology of the aquifer and unsaturated zone;

(2.) Hydraulic conductivity of the aquifer and unsaturated zone;

(3.) Groundwater flow rates;

(4.) Minimum distance between the facility and the downgradient monitor well(s);

(5.) Classification of the aquifer under Chapter 8 of the Water Quality Rules and Regulations; and

(6.) Nature (fate and transport) of any constituents detected under assessment monitoring.

(IV) After obtaining the results from any sampling event under paragraph (b) (i) (E) (II) of this section, the owner or operator must:

(1.) Within fourteen (14) days, notify the administrator and place a notice in the operating record identifying the Appendix B constituents that have been detected;

(2.) Within ninety (90) days, and on at least a semiannual basis thereafter, resample all wells, conduct analyses for all constituents required under detection monitoring [paragraph (b) (i) (D) of this section], and for all Appendix B constituents which have been detected under assessment monitoring [paragraph (b) (i) (E) (II) of this section], and record their concentrations in the operating record. At least one (1) sample must be collected from each well during each sampling event under this paragraph. The administrator may approve an alternate sampling frequency, no less than annual, considering the factors in paragraph (b) (i) (E) (III) of this section;

(3.) Establish background concentrations for any constituents detected pursuant to paragraph (b) (i) (E) (II) or (b) (i) (E) (IV) (2.) of this section; and

(4.) Request the administrator to establish groundwater protection standards for all constituents detected pursuant to paragraph (b) (i) (E) (II) or (b) (i) (E) (IV) (2.) of this section. The groundwater protection standards shall be established in accordance with paragraphs (b) (i) (E) (VIII) or (b) (i) (E) (IX) of this

section.

(V) If the concentrations of all Appendix B constituents are at or below background values using the approved statistical procedures, for two (2) consecutive sampling events, the owner or operator must notify the administrator and may return to detection monitoring under paragraph (b) (i) (D) of this section.

(VI) If the concentrations of any Appendix B constituents are above background values, but all concentrations are below the groundwater protection standard established under paragraphs (b) (i) (E) (VIII) or (b) (i) (E) (IX) of this section, using the approved statistical procedures, the owner or operator must continue assessment monitoring under paragraph (b) (i) (E) of this section.

(VII) If one (1) or more Appendix B constituents are detected at statistically significant levels above the groundwater protection standard established under paragraphs (b) (i) (E) (VIII) or (b) (i) (E) (IX) of this section in any sampling event, the owner or operator must, within fourteen (14) days of this finding place a notice in the operating record identifying the Appendix B constituents, notify the administrator and all appropriate local government officials, and:

(1.) Characterize the nature and extent of the release by installing additional monitor wells as necessary;

(2.) Install at least one (1) additional monitor well at the facility boundary downgradient of the release and sample the well in accord with paragraph (b) (i) (E) (IV) (2.) of this section;

(3.) Notify all persons who own or reside on the land that directly overlies any part of the plume of contamination, if that plume has migrated off-site; and

(4.) Initiate an assessment of corrective measures as required by Section 8(a) of this

chapter within ninety (90) days; or

(5.) Demonstrate to the administrator that the contamination was caused by another source, resulted from an error in sampling, analysis or statistical evaluation, or from natural variation in groundwater quality. If a successful demonstration is made, the owner or operator must continue monitoring under the assessment monitoring program as required by paragraph (b) (i) (E) of this section, or may return to detection monitoring if all Appendix B constituents are at or below background as specified in paragraph (b) (i) (E) (V) of this section. Until a successful demonstration is made, the owner or operator must comply with paragraph (b) (i) (E) (VII) of this section including initiating an assessment of corrective measures under Section 8(b) of this chapter.

(VIII) The owner or operator must request that the administrator establish a groundwater protection standard for each Appendix B constituent detected in the groundwater. The administrator shall establish groundwater protection standards, which shall be:

(1.) For constituents where a maximum contaminant level (MCL) has been promulgated, the MCL for that constituent;

(2.) For constituents for which MCL's have not been promulgated, the background concentration established from wells in accordance with paragraph (b) (i) (B) (I); or

(3.) For constituents for which the background level is higher than the MCL or health-based levels identified under paragraph (b) (i) (E) (IX) of this section, the background concentration.

(IX) The administrator may establish an alternative groundwater protection standard for constituents for which MCL's have not been established. These groundwater protection standards shall be health-based levels meeting the requirements of Chapter 8 of the

Water Quality Rules and Regulations.

(ii) Type II landfills, and any Type I landfill excluded from groundwater monitoring requirements under paragraph (b)(i)(A)(VI) of this section, shall, if required by the administrator, comply with the following groundwater monitoring and corrective action requirements:

(A) Well placement: All facilities required to install monitoring wells shall place them in accordance with the department's requirements. Following initial placement of the wells, the operator shall confirm that the wells are capable of measuring groundwater quality that is representative of conditions hydraulically upgradient and downgradient of the solid waste disposal facility.

(B) Well design, construction/installation and abandonment: All wells shall be designed, constructed and installed in accordance with the Water Quality Division Chapter 11 requirements. All abandoned monitoring wells shall be plugged and sealed in accordance with the Water Quality Division Chapter 11 requirements.

(C) Permits required: Prior to well installation, the monitoring well design, construction and location specifications shall be approved by the administrator. A construction permit under Chapter 3 of the Water Quality Division rules and regulations is not required. All monitoring wells shall be permitted by the Wyoming State Engineer's Office.

(D) Analyses:

(I) Baseline monitoring: The initial samples acquired in a monitoring program shall be analyzed for pH, Total Dissolved Solids (T.S.), Chemical Oxygen Demand (COD), Total Organic Carbon (TO), Ammonia as N, Nitrate as N, Bicarbonate, Carbonate, Chloride, Fluoride, Calcium, Magnesium, Potassium, Sodium, Sulfate, Copper, Iron, Manganese, Nickel, Zinc, Arsenic, Barium, Cadmium, Chromium, Cyanide, Lead, Mercury, Selenium, and Silver. Water temperature, specific conductance, pH, and static water level measurements shall also be taken in the field

during each monitoring event. The length of this initial monitoring period shall not exceed one (1) year; samples acquired during this period shall be taken at least quarterly.

(II) Detection monitoring: Following the baseline monitoring period, the administrator may specify a reduced set of sampling parameters to be analyzed at least semi-annually. The reduced set of parameters shall include, at a minimum: Total Dissolved Solids (T.S.), Chlorides, Ammonia (as N), Iron, Hardness, and Total Organic Carbon (TO). Water temperature, specific conductance, pH, and static water level measurements shall also be taken in the field during each monitoring event.

(III) Assessment monitoring: Should groundwater monitoring data indicate that the facility is impacting groundwater quality, additional wells, a revised set of sampling parameters and revised sampling schedule may be required by the administrator to define the nature and extent of contamination.

(IV) The administrator may specify additional water quality parameters for analyses, including organic chemical constituents, based on its review of the wastes likely to be disposed at any specific solid waste disposal facility.

(E) Corrective actions: Whenever there is a release of contamination which adversely impacts groundwater quality, the operator shall institute corrective actions approved by the administrator, as specified in Section 8 of this chapter.

(iii) Groundwater monitoring data shall be provided to the administrator as follows:

(A) Operators of all facilities shall submit paper copies of all groundwater monitoring data;

(B) Operators of Type I facilities shall also submit groundwater monitoring data on magnetic media or electronically transmitted files in a format specified

by the administrator;

(C) Operators of Type II facilities with three (3) or more groundwater monitoring wells may also be required to submit groundwater monitoring data on magnetic media or electronically transmitted files in a format specified by the administrator.

(c) Methane:

(i) Methane probe system design: Methane probe design, construction, installation and location shall be adequate to monitor compliance with the standards specified in Chapter 2, Sections 4 and 5.

(ii) Abandonment of methane probe boreholes: Abandoned methane probe boreholes shall be plugged and sealed in accordance with department recommendations.

(iii) Analyses: Methane analyses shall be conducted at least quarterly. Analyses shall be conducted using a gas-scope and/or organic vapor analyzer, using the manufacturer's recommended procedures.

(d) Air monitoring: Air monitoring, if required, shall be conducted in accord with Air Quality Division regulations.

(e) Soil core monitoring: Soil core monitoring, if required, shall be conducted in accord with a plan approved by the administrator.

(f) Vadose zone monitoring: Vadose zone monitoring, if required, shall be conducted in accord with a plan approved by the administrator.

(g) Reporting of environmental monitoring data: On an annual basis, operators of all facilities shall provide the administrator with copies of all required environmental monitoring data. An analysis of environmental monitoring data shall also be submitted as follows:

(i) Operators of Type I facilities shall provide copies of all required statistical analyses;

(ii) Operators of all facilities may be required to submit supporting charts and/or maps which represent the data.

Section 7. Closure and Post-Closure Standards. All facilities shall be closed in accordance with the standards described in this section, as well as the requirements of Chapter 1, Sections 2(g) and 2(h).

(a) Commencement of closure: Closure activities as specified in this section and in the approved facility closure plan shall commence no later than thirty (30) days following the time the facility ceases to receive solid wastes and shall be completed within one hundred eighty (180) days following commencement of closure. The administrator may approve:

(i) Delayed closure of a facility if the facility has additional remaining disposal capacity, and the owner demonstrates that there will be no threats to human health or the environment from the unclosed facility, and

(ii) Extensions of the closure period if needed to adequately complete closure activities and the owner demonstrates that there will be no threats to human health or the environment from the unclosed facility.

(b) Notification of closure: Prior to the commencement of closure activities, a notice of closure shall be published in an area newspaper and posted at all facility access points.

(c) Prevention of erosion or ponding problems: Facilities shall be engineered to inhibit future problems with erosion or ponding of surface water over filled areas. This may be done via site grading and revegetation, placement of rip rap or other appropriate means.

(d) Final cover: At closure, an infiltration

barrier layer of subsoil, or a combination of materials as specified in the permit, a minimum of two (2) feet thick shall be constructed over the refuse or any intermediate cover already in place. This infiltration barrier layer shall be covered with a minimum of six (6) inches of topsoil and graded to prevent erosion or surface water ponding. The infiltration barrier layer shall meet the following minimum specifications:

(i) The infiltration barrier layer in the final cover of a Type I or Type II ~~sanitary~~municipal solid waste landfill that ceased receipt of wastes before October 9, 1991 shall minimize the amount of moisture which infiltrates the final cover system. The administrator may specify more stringent specifications if the administrator determines that the site poses a significant threat to public health or the environment.

(ii) The infiltration barrier layer in the final cover for a Type I or Type II ~~sanitary~~municipal solid waste landfill that receives wastes on or after October 9, 1991 shall have a minimum permeability less than or equal to the permeability of the bottom liner or natural subsoils, or a permeability of  $1 \times 10E-5$  cm/sec (10 ft/yr), whichever is less, or such lower value as specified in the facility permit. The administrator may approve alternative infiltration barrier layer designs which achieve an equivalent reduction in the annual flux of infiltration through the final cover system. The administrator may require monitoring of alternative infiltration barrier layer designs to demonstrate the performance of the designs.

(e) Revegetation: At closure, any portion of the facility that has been disturbed by solid waste disposal activities shall be revegetated to minimize wind and water erosion of the final cover, consistent with the post-closure land use. Vegetation shall be a diverse mix selected to be compatible with the climatic conditions, require little maintenance, and have root depths that will not exceed the depth of the final cover.

(f) Surveyed corners: At closure, all facility boundary corners shall be surveyed and marked with

permanent survey caps.

(g) Notice on deed: At closure, an instrument which clearly gives notice of the restrictions that apply to future activities on the disposal facility property shall be filed for recording by the registrar of deeds (county clerk) in the county where the facility is located. Wording of such an instrument shall indicate that the property has been used as a solid waste disposal facility. This shall be recorded prior to any property transaction resulting in another use for the property. The owner/operator, or its successors, shall assure that post-closure use of the property will be restricted to prevent any disturbance to the facility's containment system including caps and liners, or the functioning of the facility's monitoring system.

(h) Access control: Facility fences, gates and any other access restrictions shall be maintained until the site has been satisfactorily closed and revegetated, if post-closure land use requires establishment of vegetative cover.

(i) Waste containment systems: Waste containment systems, including but not limited to liners, leachate detection, collection and management systems and final cover systems shall be maintained throughout the closure and post-closure periods.

(j) Surface water structures: Surface water structures shall be maintained and operated throughout the closure and post-closure periods.

(k) Environmental monitoring systems: Environmental monitoring systems shall be maintained and operated throughout the closure and post-closure periods.

(l) Corrective action systems: The operator shall respond to any pollution problem reasonably related to the facility's activities. Corrective action systems shall be maintained and operated throughout the closure and post-closure periods.

(m) Special waste management standards: Any

facility used for the management of a special waste regulated under Chapter 8, Special Waste Management Standards, shall also comply with the applicable closure standards established under Chapter 8.

(n) Transfer, treatment and storage facility standards: Any facility used for the transfer, treatment or storage of solid wastes shall also comply with the applicable closure standards established under Chapter 6.

(o) Certification of closure: Completion of closure activities shall be certified by a Wyoming registered professional engineer, as required by Section 2(h)(ii) of Chapter 1.

(p) Post-closure land use: Each facility shall be returned to the post-closure land use specified in the permit, unless an alternative use is approved by the administrator.

(q) Post-closure period:

(i) The post-closure period for Type I ~~sanitary~~municipal solid waste landfills which continued to receive wastes on or after October 9, 1993 and Type II ~~sanitary~~municipal solid waste landfills which continue to receive wastes on or after October 9, 1997 shall extend for a period of not less than thirty (30) years after certification of closure activities is approved by the administrator. The minimum post-closure period may be terminated by the administrator at an earlier date if the administrator determines that the facility has been adequately stabilized and that the environmental monitoring or control systems have demonstrated that the facility closure is protective of public health and the environment consistent with the purposes of the act.

(ii) The post-closure period for Type I ~~sanitary~~municipal solid waste landfills which received waste after October 9, 1991 but ceased receipt of wastes before October 9, 1993 and installed an approved final cover system by October 9, 1994 shall extend for a period of not less than five (5) years after certification of closure activities is approved by the administrator.

(iii) The post-closure period for Type II ~~sanitary~~municipal solid waste landfills which received waste after October 9, 1991 but ceased receipt of wastes before October 9, 1997 and installed an approved final cover system by October 9, 1998 shall extend for a period of not less than five (5) years after certification of closure activities is approved by the administrator.

(iv) The post-closure period for Type I ~~sanitary~~municipal solid waste landfills which received waste after October 9, 1991 and ceased receipt of wastes before October 9, 1993 but did not install an approved final cover system by October 9, 1994 shall extend for a period of not less than thirty (30) years after certification of closure activities is approved by the administrator. The minimum post-closure period may be terminated by the administrator at an earlier date if the administrator determines that the facility has been adequately stabilized and that the environmental monitoring or control systems have demonstrated that the facility closure is protective of public health and the environment consistent with the purposes of the act.

(v) The post-closure period for Type II ~~sanitary~~municipal solid waste landfills which received waste after October 9, 1991 and ceased receipt of wastes before October 9, 1997 but did not install an approved final cover system by October 9, 1998 shall extend for a period of not less than thirty (30) years after certification of closure activities is approved by the administrator. The minimum post-closure period may be terminated by the administrator at an earlier date if the administrator determines that the facility has been adequately stabilized and that the environmental monitoring or control systems have demonstrated that the facility closure is protective of public health and the environment consistent with the purposes of the act.

(vi) The post-closure period for Type I and Type II ~~sanitary~~municipal solid waste landfills which ceased receipt of wastes before October 9, 1991 shall extend for a period of not less than five (5) years after certification of closure activities is approved by the

administrator.

(vii) Following the initial minimum post-closure period specified in this subsection, the post-closure period shall be automatically extended until such time when the administrator determines, upon petition by the operator accompanied by submission of relevant information, that the facility has been adequately stabilized in a manner protective of human health and the environment.

(viii) Petitions to terminate the post-closure period shall include certification from a Wyoming registered professional engineer that post-closure care has been completed in compliance with the post-closure plan and in a manner protective of human health and the environment.

#### Section 8. Standards For Corrective Action:

(a) Assessment of corrective measures: All facilities required to start a corrective measures assessment under paragraph (b) (i) (E) (VII) or (b) (ii) (E) of Section 6 of this chapter shall initiate assessment of corrective measures within ninety (90) days of a groundwater quality exceedance as described at Section 6(b) (i) (E) (VII) of this chapter and complete the assessment in a reasonable time, determined by the administrator. The owner or operator shall:

(i) Continue to conduct an assessment monitoring program under paragraph (b) (i) (E) or (b) (ii) (D) (II) of Section 6 of this chapter, as applicable;

(ii) Analyze the effectiveness of potential corrective measures to meet any alternate remedies which are being considered under paragraph (b) of this section, considering:

(A) The performance, reliability, ease of implementation, and potential impacts of appropriate alternate remedies, including safety impacts, cross-media impacts, and control of exposure to any residual

contamination;

(B) The time required to begin and complete the remedy;

(C) The costs of remedy implementation;  
and

(D) The institutional requirements such as state or local permits or other environmental or public health requirements that may substantially affect implementation of the remedy.

(iii) Provide an opportunity for public review of the corrective measures assessment, prior to selection of the remedy.

(b) Selection of remedy:

(i) The landfill operator must demonstrate to the administrator how the selected corrective action remedy meets the remedy standards established in this subsection. The administrator must approve the selected remedy and the remedial activities schedule before it is implemented.

(ii) The selected remedy must:

(A) Be protective of human health and the environment;

(B) Attain the groundwater protection standard;

(C) Control the source of releases of pollution so as to reduce or eliminate, to the maximum extent practicable, further releases of Appendix B constituents into the environment that may pose a threat to human health or the environment; and

(D) Comply with standards for management of wastes specified in this chapter.

(iii) The selection of the corrective action

remedy must consider the following factors:

(A) Short- and long-term effectiveness of the remedy, and the degree of certainty that the remedy will be effective, considering:

(I) Magnitude of reduction of existing risk to public health and the environment;

(II) Magnitude of risk of further releases of pollution;

(III) Type and degree of long-term management required, including monitoring, operation, and maintenance;

(IV) Short-term risks of exposure to the community, workers, or the environment during any excavation, transportation and redisposal of wastes;

(V) Time until full protection is achieved;

(VI) Potential for exposure to humans and the environment from remaining wastes;

(VII) Long-term reliability of the engineering and any institutional controls; and

(VIII) Potential need for replacement of the remedy.

(B) The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:

(I) The extent to which containment will reduce further releases; and

(II) The extent to which treatment technologies will be used.

(C) The ease or difficulty of implementing the potential remedy, considering:

(I) Difficulty in constructing the technology;

(II) Expected reliability of the technology;

(III) Availability of necessary equipment and specialists; and

(IV) Available capacity of needed treatment, storage, and disposal facilities.

(D) Practicable capability of the owner or operator, including a consideration of the technical and economic capability.

(E) The degree to which community concerns are addressed by a potential remedy.

(iv) The administrator shall specify a schedule for initiating and completing remedial activities, considering the following factors:

(A) Extent and nature of contamination;

(B) Practical capabilities of remedial technologies in achieving compliance with groundwater protection standards;

(C) Availability of treatment or disposal capacity for wastes managed during implementation of the remedy;

(D) Desirability of utilizing technologies that are not currently available but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives;

(E) Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;

(F) Classification of the aquifer under

Chapter 8 of the Water Quality Rules and Regulations, plus a consideration of the following factors:

- (I) Current and future uses;
- (II) Proximity and withdrawal rate of users;
- (III) Groundwater quantity;
- (IV) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste;
- (V) The hydrologic characteristics of the facility and surrounding lands;
- (VI) Groundwater removal and treatment costs; and
- (VII) The cost and availability of alternative water supplies;
- (G) Practicable capability of the owner or operator; and
- (H) Any other factor considered relevant by the administrator.

(v) The administrator may determine that remediation of a release of an Appendix B constituent from a facility is not necessary if the owner or operator demonstrates to the satisfaction of the administrator that:

(A) The groundwater is additionally contaminated by substances that have originated from a source other than the facility, and those substances are present in concentrations such that the cleanup of the release from the facility would provide no significant reduction in risk to actual or potential receptors; or

(B) The constituent(s) is present in groundwater that:

(I) Is not currently or reasonably expected to be a source of drinking water; and

(II) Is not hydraulically connected with waters to which the hazardous constituents are migrating or are likely to migrate in a concentration(s) that would exceed the groundwater protection standards established under Section 6 of this chapter; or

(III) Remediation of the release(s) is technically impracticable; or

(IV) Remediation results in unacceptable cross-media impacts.

(vi) A determination by the administrator not to require remediation under paragraph (v) of this section shall not affect the authority of the administrator to require the owner or operator to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically practicable and significantly reduce threats to human health or the environment.

(c) Corrective action implementation:

(i) The operator must:

(A) Implement the selected remedy as approved by the administrator;

(B) Continue groundwater monitoring to meet the requirements of the assessment monitoring program and to demonstrate the effectiveness of the selected remedy in meeting established water quality standards; and

(C) Take interim measures as determined necessary by the administrator to ensure protection of public health and the environment. The administrator shall consider the following factors in determining the need for interim measures:

(I) Time required to develop and implement a final remedy;

(II) Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;

(III) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(IV) Further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;

(V) Weather conditions that may cause hazardous constituents to migrate or be released;

(VI) Risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and

(VII) Other situations that may pose threats to human health and the environment.

(ii) If the selected remedy is not meeting the corrective action standards, the owner or operator shall implement other methods or techniques which have been approved by the administrator that could practicably achieve compliance with the requirements, unless there is no practicable alternative and the owner or operator meets the requirements of paragraph (c)(iii) of this section.

(iii) If a selected remedy cannot be practically achieved with any currently available methods, the owner or operator must:

(A) Demonstrate to the satisfaction of the administrator that the remedy cannot be achieved;

(B) Implement alternative measures which have been approved by the administrator to control

exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment; and

(C) Implement alternate measures for control of the sources of contamination, which are consistent with the overall objective of the remedy and which are technically practicable.

(iv) All solid wastes managed pursuant to a remedy or interim measure under this section shall be managed in a manner that complies with the requirements of this chapter and that is protective of human health and the environment.

(v) Remedies shall be considered complete when:

(A) The owner or operator complies with the groundwater protection standards established under Section 6(b) (i) (E) (VIII) or (IX), at all points within the plume of contamination that lie beyond the groundwater monitoring well system established under Section 6(b) (i) (B);

(B) Compliance with the groundwater protection standards shall be considered complete when concentrations of Appendix B constituents have not exceeded the groundwater protection standard(s) for a period of three (3) consecutive years using the approved statistical procedures. The administrator may approve an alternate length of time during which the owner or operator must demonstrate compliance with the standard(s), considering:

(I) Extent and concentration of the release(s);

(II) Behavior characteristics of the hazardous constituents in the groundwater;

(III) Accuracy of the data; and

(IV) Characteristics of the groundwater; and

(C) All actions required to complete the remedy have been satisfied.

(vi) When the corrective action remedy is complete, the operator must:

(A) Place a notice in the facility operating record; and

(B) Petition the administrator to be released from the financial assurance requirements for corrective action under Chapter 7 of these rules and regulations.

## Appendix A - Constituents for Detection Monitoring<sup>1</sup>

Common name <sup>2</sup>	CAS RN <sup>3</sup>	Chemical abstracts service index name <sup>4</sup>	Suggested methods <sup>5</sup>	PQL ( $\mu\text{g/L}$ ) <sup>6</sup>
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### Inorganics (15)

Antimony	(Total)	Antimony	6010 7040 7041	300 2000 30
Arsenic	(Total)	Arsenic	6010 7060 7061	500 10 20
Barium	(Total)	Barium	6010 7080	20 1000
Beryllium	(Total)	Beryllium	6010 7090 7091	3 50 2
Cadmium	(Total)	Cadmium	6010 7130 7131	40 50 1
Chromium	(Total)	Chromium	6010 7190 7191	70 500 10
Cobalt	(Total)	Cobalt	6010 7200 7201	70 500 10
Copper	(Total)	Copper	6010 7210 7211	60 200 10
Lead	(Total)	Lead	6010 7420 7421	400 1000 10
Nickel	(Total)	Nickel	6010 7520	150 400
Selenium	(Total)	Selenium	6010 7740 7741	750 20 20
Silver	(Total)	Silver	6010 7760	70 100
Thallium	(Total)	Thallium	6010 7840 7841	400 1000 10
Vanadium	(Total)	Vanadium	6010 7910 7911	80 2000 40
Zinc	(Total)	Zinc	6010 7950 7951	20 50 0.5

### Volatiles (47)

Acetone	67-64-1	2-Propanone	8260	100
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Acrylonitrile	107-13-1	2-Propenenitrile	8030 8260	5 200
Benzene	71-43-2	Benzene	8020 8021 8260	2 0.1 5
Bromochloromethane; Chlorobromomethane	74-97-5	Methane, bromochloro-	8021 8260	0.1 5
Bromodichloromethane; Dibromochloromethane	75-27-4	Methane, bromodichloro-	8010 8021 8260	1 0.2 5
Bromoform; Tribromomethane	75-25-2	Methane, tribromo-	8010 8021 8260	2 15 5
Carbon disulfide	75-15-0	Carbon disulfide	8260	100
Carbon tetrachloride	56-23-5	Methane, tetrachloro-	8010 8021 8260	1 0.1 10
Chlorobenzene	108-90-7	Benzene, chloro-	8010 8020 8021 8260	2 2 0.1 5
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-	8010 8021 8060	5 1 10
Chloroform; Trichloromethane	67-66-3	Methane, trichloro-	8010 8021 8260	0.5 0.2 5
Dibromochloromethane; Chlorodibromomethane	124-48-1	Methane, dibromochloro-	8010 8021 8260	1 0.3 5
1,2-Dibromo-3-chloropropane; DBCP	96-12-8	Propane, 1,2-dibromo-3-chloro-	8011 8021 8260	0.1 30 25
1,2-Dibromoethane; Ethylene dibromide; EDB	106-93-4	Ethane, 1,2-dibromo-	8011 8021	0.1 10
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-	8010 8020 8021 8120 8260 8270	2 5 0.5 10 5 10
p-Dichlorobenzene; 1,4 Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-	8010	2
trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-	8260	100
1,1-Dichloroethane; Ethylidene chloride	75-34-3	Ethane, 1,1-dichloro-	8010 8021 8260	1 0.5 5
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,1-dichloro-	8010 8021 8260	0.5 0.3 5
1,1-Dichloroethylene; 1,1- Dichloroethene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro-	8010 8021 8260	1 0.5 5
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2	Ethene, 1,2-dichloro-, (Z)-	8021 8260	0.2 5
trans-1,2-Dichloroethylene trans-1,2-Dichloroethene	156-60-5	Ethene, 1,2-dichloro-, (E)-	8010 8021 8260	1 0.5 5
1,2-Dichloropropane;	78-87-5	Propane, 1,2-dichloro-	8010	0.5

Propylene dichloride			8021 8260	0.05 5
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-, (Z)-	8010 8260	20 10
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-, (E)-	8010 8260	5 5
Ethylbenzene	100-41-4	Benzene, ethyl-	8020 8221 8260	2 0.05 5
2-Hexanone; Methyl butyl ketone	591-78-6	2-Hexanone	8260	50
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-	8010 8021	20 10
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-	8010 8021	1 0.3
Methylene bromide; Dibromomethane	74-95-3	Methane, dibromo-	8010 8021 8260	15 20 10
Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-	8010 8021 8260	5 0.2 10
Methyl ethyl ketone; MEK; 2-Butanone	78-93-3	2-Butanone	8015 8260	10 100
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-	8010 8260	40 10
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1	2-Pentanone, 4-methyl-	8015 8260	5 100
Styrene	100-42-5	Benzene, ethenyl-	8020 8021 8260	1 0.1 10
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-	8010 8021 8260	5 0.05 5
1,1,2,2-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-	8010 8021 8260	0.5 0.1 5
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4	Ethene, tetrachloro-	8010 8021 8260	0.5 0.5 5
Toluene	108-88-3	Benzene, methyl-	8020 8021 8260	2 0.1 5
1,1,1-Trichloroethane; Methylchloroform	71-55-6	Ethane, 1,1,1-trichloro-	8010 8021 8260	0.3 0.3 5
1,1,2-Trichloroethane	79-00-5	Ethane, 1,1,2-trichloro-	8010 8260	0.2 5
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-	8010 8021 8260	1 0.2 5
Trichlorofluoromethane; CFC- 11	75-69-4	Methane, trichlorofluoro-	8010 8021 8260	10 0.3 5
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-	8010 8021 8260	10 5 15

Vinyl acetate	108-05-4	Acetic acid, ethenyl ester	8260	50
Vinyl chloride; Chloroethene	75-01-4	Ethene, chloro-	8010 8021 8260	2 0.4 10
Xylene (total)	See Note 11	Benzene, dimethyl-	8020 8021 8260	5 0.2 5

<sup>1</sup>The regulatory requirements pertain only to the list of substances; the right hand columns (Methods and PQL) are given for informational purposes only. See also footnotes 5 and 6.

<sup>2</sup>Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

<sup>3</sup>Chemical Abstracts Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.

<sup>4</sup>CAS index names are those used in the 9th Collective Index.

<sup>5</sup>Suggested Methods refer to analytical procedure numbers used in EPA Report SW-846 "Test Methods for Evaluating Solid Waste", third edition, November 1986, as revised, December 1987. Analytical details can be found in SW-846 and in documentation on file at the department. CAUTION: The methods listed are representative SW-846 procedures and may not always be the most suitable method(s) for monitoring an analyte under the regulations.

<sup>6</sup>Practical Quantitation Limits (PQLs) are the lowest concentrations of analytes in groundwaters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions. The PQLs listed are generally stated to one significant figure. PQLs are based on 5 mL samples for volatile organics and 1 L samples for semivolatile organics. CAUTION: The PQL values in many cases are based only on a general estimate for the method and not on a determination for individual compounds; PQLs are not a part of the regulation.

## Appendix B - Constituents for Assessment Monitoring<sup>1</sup>

Common name <sup>2</sup>	CAS RN <sup>3</sup> 10061-02-6	Chemical abstracts service index name <sup>4</sup>	Suggested methods <sup>5</sup>	PQL ( $\mu\text{g/L}$ ) <sup>6</sup>
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### Inorganics (19)

Antimony	(Total)	Antimony	6010 7040 7041	300 2000 30
Arsenic	(Total)	Arsenic	6010 7060 7061	500 10 20
Barium	(Total)	Barium	6010 7080	20 1000
Beryllium	(Total)	Beryllium	6010 7090 7091	3 50 2
Cadmium	(Total)	Cadmium	6010 7130 7131	40 50 1
Chromium	(Total)	Chromium	6010 7190 7191	70 500 10
Cobalt	(Total)	Cobalt	6010 7200 7201	70 500 10
Copper	(Total)	Copper	6010 7210 7211	60 200 10
Cyanide	57-12-5	Cyanide	9010	200
Lead	(Total)	Lead	6010 7420 7421	400 1000 10
Mercury	(Total)	Mercury	7470	2
Nickel	(Total)	Nickel	6010 7520	150 400
Selenium	(Total)	Selenium	6010 7740 7741	750 20 20
Silver	(Total)	Silver	6010 7760	70 100
Sulfide	18496-25-8	Sulfide	9030	4000
Thallium	(Total)	Thallium	6010 7840 7841	400 1000 10
Tin	(Total)	Tin	6010	40
Vanadium	(Total)	Vanadium	6010 7910 7911	80 2000 40
Zinc	(Total)	Zinc	6010 7950 7951	20 50 0.5

Volatiles (64)

Acetone	67-64-1	2-Propanone	8260	100
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile	8015	100
Acrolein	107-02-8	2-Propenal	8030 8260	5 100
Acrylonitrile	107-13-1	2-Propenenitrile	8030 8260	5 200
Allyl chloride	107-05-1	1-Propene, 3-chloro-	8010 8260	5 10
Benzene	71-43-2	Benzene	8020 8021 8260	2 0.1 5
Bromochloromethane; Chlorobromomethane	74-97-5	Methane, bromochloro-	8021 8260	0.1 5
Bromodichloromethane; Dibromochloromethane	75-27-4	Methane, bromodichloro-	8010 8021 8260	1 0.2 5
Bromoform; Tribromomethane	75-25-2	Methane, tribromo-	8010 8021 8260	2 15 5
Carbon disulfide	75-15-0	Carbon disulfide	8260	100
Carbon tetrachloride	56-23-5	Methane, tetrachloro-	8010 8021 8260	1 0.1 10
Chlorobenzene	108-90-7	Benzene, chloro-	8010 8020 8021 8260	2 2 0.1 5
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-	8010 8021 8060	5 1 10
Chloroform; Trichloromethane	67-66-3	Methane, trichloro-	8010 8021 8260	0.5 0.2 5
Chloroprene	126-99-8	1,3-Butadiene, 2-chloro-	8010 8260	50 20
Dibromochloromethane; Chlorodibromomethane	124-48-1	Methane, dibromochloro-	8010 8021 8260	1 0.3 5
1,2-Dibromo-3-chloropropane; DBCP	96-12-8	Propane, 1,2-dibromo-3-chloro-	8011 8021 8260	0.1 30 25
1,2-Dibromoethane; Ethylene dibromide; EDB	106-93-4	Ethane, 1,2-dibromo-	8011 8021	0.1 10
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-	8010 8020 8021 8120 8260 8270	2 5 0.5 10 5 10
m-Dichlorobenzene; 1,3-Dichlorobenzene	541-73-1	Benzene, 1,3-dichloro-	8010 8020 8021 8120 8260 8270	5 5 0.2 10 5 10

p-Dichlorobenzene; 1,4-Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-	8020 8021 8120 8260 8270	5 0.2 10 5 10
p-Dichlorobenzene; 1,4 Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-	8010	2
trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-	8260	100
Dichlorodifluoromethane	75-71-8	Methane, dichlorodifluoro-	8021 8260	0.5 5
1,1-Dichloroethane; Ethylidene chloride	75-34-3	Ethane, 1,1-dichloro-	8010 8021 8260	1 0.5 5
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,1-dichloro-	8010 8021 8260	0.5 0.3 5
1,1-Dichloroethylene; 1,1- Dichloroethene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro-	8010 8021 8260	1 0.5 5
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2	Ethene, 1,2-dichloro-, (Z)-	8021 8260	0.2 5
trans-1,2-Dichloroethylene trans-1,2-Dichloroethene	156-60-5	Ethene, 1,2-dichloro-, (E)-	8010 8021 8260	1 0.5 5
1,2-Dichloropropane; Propylene dichloride	78-87-5	Propane, 1,2-dichloro-	8010 8021 8260	0.5 0.05 5
1,3-Dichloropropane; Trimethylene dichloride	142-28-9	Propane, 1,3-dichloro-	8021 8260	0.3 15
2,2-Dichloropropane; Isopropylidene chloride	594-20-7	Propane, 2,2-dichloro-	8021 8260	0.5 5
1,1-Dichloropropene;	563-58-6	1-Propene, 1,1-dichloro-	8021 8260	0.2 5
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-, (Z)-	8010 8260	20 10
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-, (E)-	8010 8260	5 5
Ethylbenzene	100-41-4	Benzene, ethyl-	8020 8221 8260	2 0.05 5
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	8015 8260 8270	5 10 10
2-Hexanone; Methyl butyl ketone	591-78-6	2-Hexanone	8260	50
Isobutyl alcohol	78-83-1	1-Propanol, 2-methyl-	8015 8240	50 100
Methacrylonitrile	126-98-7	2-Propenenitrile, 2-methyl-	8015 8260	5 100
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-	8010 8021	20 10
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-	8010 8021	1 0.3
Methylene bromide; Dibromomethane	74-95-3	Methane, dibromo-	8010 8021 8260	15 20 10

Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-	8010 8021 8260	5 0.2 10
Methyl ethyl ketone; MEK; 2-Butanone	78-93-3	2-Butanone	8015 8260	10 100
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-	8010 8260	40 10
Methyl methacrylate	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester	8015 8260	2 30
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1	2-Pentanone, 4-methyl-	8015 8260	5 100
Naphthalene	91-20-3	Naphthalene	8021 8100 8260 8270	0.5 200 5 10
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile	8015 8260	60 150
Styrene	100-42-5	Benzene, ethenyl-	8020 8021 8260	1 0.1 10
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-	8010 8021 8260	5 0.05 5
1,1,2,2-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-	8010 8021 8260	0.5 0.1 5
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4	Ethene, tetrachloro-	8010 8021 8260	0.5 0.5 5
Toluene	108-88-3	Benzene, methyl-	8020 8021 8260	2 0.1 5
1,2,4-Trichlorobenzene	120-82-1	Benzene, 1,2,4-trichloro-	8021 8120 8260 8270	0.3 0.5 10 10
1,1,1-Trichloroethane; Methylchloroform	71-55-6	Ethane, 1,1,1-trichloro-	8010 8021 8260	0.3 0.3 5
1,1,2-Trichloroethane	79-00-5	Ethane, 1,1,2-trichloro-	8010 8260	0.2 5
Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-	8010 8021 8260	1 0.2 5
Trichlorofluoromethane; CFC- 11	75-69-4	Methane, trichlorofluoro-	8010 8021 8260	10 0.3 5
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-	8010 8021 8260	10 5 15
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester	8260	50
Vinyl chloride; Chloroethene	75-01-4	Ethene, chloro-	8010 8021 8260	2 0.4 10
Xylene (total)	See Note 11	Benzene, dimethyl-	8020 8021 8260	5 0.2 5

Semi-Volatiles (108)

Acenaphthene	83-32-9	Acenaphthylene, 1,2-dihydro-	8100 8270	200 10
Acenaphthylene	208-96-8	Acenaphthylene	8100 8270	200 10
Acetophenone	98-86-2	Ethanone, 1-phenyl-	8270	10
2-Acetylaminofluorene; 2-AAF	53-96-3	Acetamide, N-9H-fluoren-2-yl-	8270	20
4-Aminobiphenyl	92-67-1	[1,1'-Biphenyl]-4-amine	8270	20
Anthracene	120-12-7	Anthracene	8100 8270	200 10
Benzo[a]anthracene; Benzanthracene	56-55-3	Benz[a]anthracene	8100 8270	200 10
Benzo[b]fluoranthene	205-99-2	Benz[e]acephenanthrylene	8100 8270	200 10
Benzo[k]fluoranthene	207-08-9	Benzo[k]fluoranthene	8100 8270	200 10
Benzo[ghi]perylene	191-24-2	Benzo[ghi]perylene	8100 8270	200 10
Benzo[a]pyrene	50-32-8	Benzo[a]pyrene	8100 8270	200 10
Benzyl alcohol	100-51-6	Benzenemethanol	8270	20
Bis(2-chloroethoxy)methane	111-91-1	Ethane, 1,1'-[methylenebis (oxy)]bis[2-chloro-	8110 8270	5 10
Bis(2-chloroethyl)ether; Dichloroethyl ether	111-44-4	Ethane, 1,1'-oxybis[2-chloro-	8110 8270	3 10
Bis(2-chloro-1-methylethyl) ether; 2,2'- Dichlorodiisopropyl ether; DCIP, See note 7	108-60-1	Propane, 2,2'-oxybis[1-chloro-	8110 8270	10 10
Bis(2-ethylhexyl) phthalate	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl)ester	8060	20
4-Bromophenyl phenyl ether	101-55-3	Benzene, 1-bromo-4-phenoxy-	8110 8270	25 10
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester	8060 8270	5 10
p-Chloroaniline	106-47-8	Benzenamine, 4-chloro-	8270	20
Chlorobenzilate	510-15-6	Benzeneacetic acid, 4-chloro- $\alpha$ -(4-chlorophenyl)- $\alpha$ -hydroxy-, ethyl ester	8270	10
p-Chloro-m-cresol; 4-Chloro-3-methylphenol	59-50-7	Phenol, 4-chloro-3-methyl-	8040 8270	5 20
2-Chloronaphthalene	91-58-7	Naphthalene, 2-chloro-	8120 8270	10 10
2-Chlorophenol	95-57-8	Phenol, 2-chloro-	8040 8270	5 10
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4-phenoxy-	8110 8270	40 10
Chrysene	218-01-9	Chrysene	8100 8270	200 10
m-Cresol; 3-methylphenol	108-39-4	Phenol, 3-methyl-	8270	10

o-Cresol; 2-methylphenol	95-48-7	Phenol, 2-methyl-	8270	10
p-Cresol; 4-methylphenol	106-44-5	Phenol, 4-methyl-	8270	10
Diallate	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S- (2,3-dichloro-2-propenyl) ester	8270	10
Dibenz[a,h]anthracene	53-70-3	Dibenz[a,h]anthracene	8100 8270	200 10
Dibenzofuran	132-64-9	Dibenzofuran	8270	10
3,3'-Dichlorobenzidine	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	8270	20
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-	8040 8270	5 10
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-	8270	10
Diethyl phthalate	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	8060 8270	5 10
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	8141 8270	5 20
Dimethoate	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester	8141 8270	3 20
p-(Dimethylamino)azobenzene	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-	8270	10
7,12-Dimethylbenz[a]anthracene	57-97-6	Benz[a]anthracene, 7,12-dimethyl-	8270	10
3,3'-Dimethylbenzidine	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	8270	10
2,4-Dimethylphenol; m-Xylenol	105-67-9	Phenol, 2,4-dimethyl-	8040 8270	5 10
Dimethyl phthalate	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	8060 8270	5 10
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-	8270	20
4,6-Dinitro-o-cresol; 4,6-Dinitro-2-methylphenol	534-52-1	Phenol, 2-methyl-4,6-dinitro-	8040 8270	150 50
2,4-Dinitrophenol	51-28-5	Phenol, 2,4-dinitro-	8040 8270	150 50
2,4-Dinitrotoluene	121-14-2	Benzene, 1-methyl-2,4-dinitro-	8090 8270	0.2 10
Di-n-butyl phthalate	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester	8060 8270	5 10
2,6-Dinitrotoluene	606-20-2	Benzene, 2-methyl-1,3-dinitro-	8090 8270	0.1 10
Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	8150 8270	1 20
Di-n-octyl phthalate	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester	8060 8270	30 10
Diphenylamine	122-39-4	Benzenamine, N-phenyl-	8270	10
Disulfoton	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester	8140 8141 8270	2 0.5 10
Ethyl methanesulfonate	62-50-0	Methanesulfonic acid, ethyl ester	8270	20

Famphur	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl]-O,O-dimethyl ester	8270	20
Fluoranthene	206-44-0	Fluoranthene	8100 8270	200 10
Fluorene	86-73-7	9H-Fluorene	8100 8270	200 10
Hexachlorobenzene	118-74-1	Benzene, hexachloro-	8120 8270	0.5 10
Hexachlorobutadiene	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	8021 8120 8260 8270	0.5 5 10 10
Hexachlorocyclopentadiene	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	8120 8270	5 10
Hexachloroethane	67-72-1	Ethane, hexachloro-	8120 8260 8270	0.5 10 10
Hexachloropropene	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-	8270	10
Indeno (1,2,3-cd)pyrene	193-39-5	Indeno [1,2,3-cd]pyrene	8100 8270	200 10
Isodrin	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1a,4a,4aB,5B,8B,8aB)-	8270 8260	20 10
Isophorone	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl-	8090 8270	60 10
Isosafrole	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-	8270	10
Kepone	143-50-0	1,3,4-Metheno-2H-cyclobuta-[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachloro-octahydro-	8270	20
Methapyrilene	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	8270	100
3-Methylcholanthrene	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	8270	10
Methyl methanesulfonate	66-27-3	Methanesulfonic acid, methyl ester	8270	10
2-Methylnaphthalene	91-57-6	Naphthalene, 2-methyl-	8270	10
Methyl parathion; Parathion methyl	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	8140 8141 8270	0.5 1 10
1,4-Naphthoquinone	130-15-4	1,4-Naphthalenedione	8270	10
1-Naphthylamine	134-32-7	1-Naphthalenamine	8270	10
2-Naphthylamine	91-59-8	2-Naphthalenamine	8270	10
o-Nitroaniline; 2-Nitroaniline	88-74-4	Benzenamine, 2-nitro-	8270	50
m-Nitroaniline; 3-Nitroaniline	99-09-2	Benzenamine, 3-nitro-	8270	50
p-Nitroaniline; 4-Nitroaniline	100-01-6	Benzenamine, 4-nitro-	8270	50

Nitrobenzene	98-95-3	Benzene, nitro-	8090 8270	40 10
o-Nitrophenol; 2-Nitrophenol	88-75-5	Phenol, 2-nitro-	8040 8270	5 10
p-Nitrophenol; 4-Nitrophenol	100-02-7	Phenol, 4-nitro-	8040 8270	10 50
N-Nitrosodiethylamine	55-18-5	Ethanamine, N-ethyl-N-nitroso-	8270	20
N-Nitrosodimethylamine	62-75-9	Methanamine, N-methyl-N-nitroso-	8070	2
N-Nitrosodi-n-butylamine	924-16-3	1-Butanamine, N-butyl-N-nitroso-	8270	10
N-Nitrosodiphenylamine	86-30-6	Benzenamine, N-nitroso-N-phenyl-	8070	5
N-Nitrosodipropylamine; N-Nitroso-N-dipropylamine; Di-n-propylnitrosamine	621-64-7	1-Propanamine, N-nitroso-N-propyl-	8070	10
N-Nitrosomethylethylamine	10595-95-6	Ethanamine, N-methyl-N-nitroso-	8270	10
N-Nitrosomorpholine	59-89-2	Morpholine, 4-nitroso-	8270	10
N-Nitrosopiperidine	100-75-4	Piperidine, 1-nitroso-	8270	20
N-Nitrosopyrrolidine	930-55-2	Pyrrolidine, 1-nitroso-	8270	40
5-Nitro-o-toluidine	99-55-8	Benzenamine, 2-methyl-5-nitro-	8270	10
Pentachlorophenol	87-86-5	Phenol, pentachloro-	8040 8270	5 50
Phenanthrene	85-01-8	Phenanthrene	8100 8270	200 10
Phenol	108-95-2	Phenol	8040	1
p-Phenylenediamine	106-50-3	1,4-Benzenediamine	8270	10
Pentachlorobenzene	608-93-5	Benzene, pentachloro-	8270	10
Pentachloronitrobenzene	82-68-8	Benzene, pentachloronitro-	8270	20
Phenacetin	62-44-2	Acetamide, N-(4-ethoxyphenyl)	8270	20
Phorate	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	8140 8141 8270	2 0.5 10
Pronamide	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	8270	10
Pyrene	129-00-0	Pyrene	8100 8270	200 10
Safrole	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	8270	10
1,2,4,5-Tetrachloro-benzene	95-94-3	Benzene, 1,2,4,5-tetrachloro-	8270	10
2,3,4,6-Tetrachlorophenol	58-90-2	Phenol, 2,3,4,6-tetrachloro-	8270	10
o-Toluidine	95-53-4	Benzenamine, 2-methyl-	8270	10
2,4,5-Trichlorophenol	95-95-4	Phenol, 2,4,5-trichloro-	8270	10
2,4,6-Trichlorophenol	88-06-2	Phenol, 2,4,6-trichloro-	8040 8270	5 10

O,O,O-Triethyl phosphorothioate	126-68-1	Phosphorothioic acid, O,O,O-triethyl ester	8270	10
sym-Trinitrobenzene	99-35-4	Benzene, 1,3,5-trinitro-	8270	10

## Pesticides (20)

Aldrin	309-00-2	1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1a,4a,4a $\beta$ ,5a,8a,8a $\beta$ )-	8080 8270	0.05 10
alpha-BHC	319-84-6	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1a,2a,3 $\beta$ ,4a,5 $\beta$ ,6 $\beta$ )-	8080 8270	0.05 10
beta-BHC	319-85-7	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1a,2 $\beta$ ,3a,4 $\beta$ ,5a,6 $\beta$ )-	8080 8270	0.05 20
delta-BHC	319-86-8	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1a,2a,3a,4 $\beta$ ,5a,6 $\beta$ )-	8080 8270	0.1 20
gamma-BHC; Lindane	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1a,2a,3 $\beta$ ,4a,5a,6 $\beta$ )-	8080 8270	0.05 20
Chlordane	See Note 8	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	8080 8270	0.1 50
4,4'-DDD	72-54-8	Benzene 1,1'-(2,2-dichloroethylidene)bis[4-chloro-	8080 8270	0.1 10
4,4'-DDE	72-55-9	Benzene, 1,1'-(dichloroethenylidene)bis[4-chloro-	8080 8270	0.05 10
4,4'-DDT	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-	8080 8270	0.1 10
Dieldrin	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1a,2 $\beta$ ,2a $\alpha$ ,3 $\beta$ ,6 $\beta$ ,6a $\alpha$ ,7 $\beta$ ,7a $\alpha$ )-	8080 8270	0.05 10
Endosulfan I	959-98-8	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3a,5a $\beta$ ,6a,9a,9a $\beta$ )-	8080 8250	0.1 10
Endosulfan II	33213-65-9	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3a,5a $\alpha$ ,6 $\beta$ ,9 $\beta$ ,9a $\alpha$ )-	8080 8270	0.05 20
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3,3-dioxide	8080 8270	0.5 10
Endrin	72-20-8	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1a $\alpha$ ,2 $\beta$ ,2a $\beta$ ,3a,6a,6a $\beta$ ,7 $\beta$ ,7a $\alpha$ )-	8080 8270	0.1 20

Endrin aldehyde	7421-93-4	1,2,4-Methenocyclopenta[cd]pentalene-5-carboxaldehyde, 2,2a,3,3,4,7-hexachlorodecahydro-, (1 $\alpha$ ,2 $\beta$ ,2a $\beta$ ,4 $\beta$ ,4a $\beta$ ,5 $\beta$ ,6 $\beta$ ,7R*)-	8080 8270	0.2 10
Heptachlor	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	8080 8270	0.05 10
Heptachlor epoxide	1024-57-3	2,5-Methano-2H-indeno[1,2-b]oxirene, 2,3,4,5,6,7,7-hexachloro-1a,1b,5,5a,6,6a,-hexahydro-, (1a $\alpha$ ,1b $\beta$ ,2a,5a,5a $\beta$ ,6 $\beta$ ,6a $\alpha$ )	8080 8270	1 10
Methoxychlor	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-	8080 8270	2 10
Parathion	56-38-2	Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester	8141 8270	0.5 10
Toxaphene	See Note 10	Toxaphene	8080	2

### Herbicides (3)

2,4-D; 2,4-Dichlorophenoxy-acetic acid	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-	8150	10
2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-	8150	2
Silvex; 2,4,5-TP	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	8150	2

### PCBs (7)

Polychlorinated biphenyls; PCBs; Aroclors	See Note 9	1,1'-Biphenyl, chloro derivatives	8080 8270	50 200
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<sup>1</sup>The regulatory requirements pertain only to the list of substances; the right hand columns (Methods and PQL) are given for informational purposes only. See also footnotes 5 and 6.

<sup>2</sup>Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

<sup>3</sup>Chemical Abstracts Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.

<sup>4</sup>CAS index names are those used in the 9th Collective Index.

<sup>5</sup>Suggested Methods refer to analytical procedure numbers used in EPA Report SW-846 "Test Methods for Evaluating Solid Waste", third edition, November 1986, as revised, December 1987. Analytical details can be found in SW-846 and in documentation on file at the department. CAUTION: The methods listed are representative SW-846 procedures and may not always be the most suitable method(s) for monitoring an analyte under the regulations.

<sup>6</sup>Practical Quantitation Limits (PQLs) are the lowest concentrations of analytes in groundwaters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions. The PQLs listed are generally stated to one significant figure. PQLs are based on 5 mL samples for volatile organics and 1 L samples for semivolatile organics. CAUTION: The PQL values in many cases are based only on a general estimate for the method and not on a determination for individual compounds; PQLs are not a part of the regulation.

<sup>7</sup>This substance is often called Bis(2-chloroisopropyl) ether, the name Chemical Abstracts Service applies to its noncommercial isomer, Propane, 2,2"-oxybis[2-chloro- (CAS RN 39638-32-9)

<sup>8</sup>Chlordane: This entry includes alpha-chlordane (CAS RN 5103-71-9), beta-chlordane (CAS RN 5103-74-2), gamma-chlordane (CAS RN 5566-34-7), and constituents of chlordane (CAS RN 57-74-9 and CAS RN 12789-03-6). PQL shown is for technical chlordane. PQLs of specific isomers are about 20 µg/L by method 8270.

<sup>9</sup>Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor 1016 (CAS RN 12674-11-2), Aroclor 1221 (CAS RN 11104-28-2), Aroclor 1232 (CAS RN 11141-16-5), Aroclor 1242 (CAS RN 53469-21-9), Aroclor 1248 (CAS RN 12672-29-6), Aroclor 1254 (CAS RN 11097-69-1), and Aroclor 1260 (CAS RN

11096-82-5). The PQL shown is an average value for PCB congeners.

<sup>10</sup>Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001-35-2), i.e., chlorinated camphene.

<sup>11</sup>Xylene (total): This entry includes o-xylene (CAS RN 96-47-6), m-xylene (CAS RN 108-38-3), p-xylene (CAS RN. 106-42-3), and unspecified xylenes (dimethylbenzenes) (CAS RN 1330-20-7). PQLs for method 8021 are 0.2 for o-xylene, and 0.1 for m- or p-xylene. The PQL for m-xylene is 2.0  $\mu\text{g/L}$  by method 8020 or 8260.



**SOLID WASTE  
RULES AND REGULATIONS**

**Chapter 7**

**Strikethrough/Underline Version**

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## CHAPTER 7

### FINANCIAL ASSURANCE REQUIREMENTS

#### Section 1. In General.

(a) Authority: The authority for the rules and regulations promulgated in this chapter is the Wyoming Environmental Quality Act, W.S. 35-11-306 and W.S. 35-11-504.

#### (b) Applicability:

(i) This chapter governs all solid waste management facilities that are required to demonstrate financial assurance under W.S. 35-11-504. Exempt solid waste management facilities include those:

(A) Solid waste landfills regulated under Chapter 2 of these rules and regulations which are owned or operated by a municipality provided that the facility is a participating facility under W.S. 35-11-515(o) (iii);

(B) Owned and operated by the person disposing of solid waste generated at the facility who annually demonstrates to the director compliance with the financial assurance requirements of the Resource Conservation and Recovery Act, P.L. 94-580, as amended as of January 1, 1989;

(C) Which are also subject to bonding or financial assurance requirements under Article 2, 3, or 4 of the act if the director determines that the bond or financial assurance under Articles 2, 3, or 4 satisfies the requirements of this chapter;

(D) Which are subject to bonding or financial assurance requirements under W.S. 30-5-104(d) (i) (D) or 30 U.S.C. 226(g) as amended as of January 1, 1989;

(E) Owned or operated by an electric utility disposing of solid waste generated by an electric generation facility pursuant to a permit or license issued by the department, provided that the exemption may be

revoked by the council upon petition of the director for a period of time established by the council to secure remedial action in the event of any discharge of pollution to the air, land or to waters of the state which is in violation of a permit, standard, rule or requirement established under the provisions of the act;

(F) Solid waste management facilities other than those regulated under Chapter 2, which are owned or operated by a municipality;

(G) Type I and Type II sanitary landfills regulated under Chapter 2 which ceased receipt of wastes before October 9, 1991;

(H) Type I sanitary landfills regulated under Chapter 2 which received waste after October 9, 1991 but ceased receipt of waste before October 9, 1993 and installed an approved final cover system before October 9, 1994;

(I) Type II sanitary landfills regulated under Chapter 2 which received waste after October 9, 1991 but cease receipt of wastes before October 9, 1997 and install an approved final cover system before October 9, 1998; and

(J) Mobile transfer, treatment and storage facilities regulated under Chapter 6 of these rules and regulations.

(c) Objective: The objective of these rules and regulations is to provide financial assurance for the purposes specified in W.S. 35-11-504(a) and to establish the procedures for participating facilities as provided in W.S. 35-11-515.

(d) Severability: If any section or provision of this chapter, or the application of that section or provision to any person, situation, or circumstance is adjudged invalid for any reason, the adjudication does not affect any other section or provision of these regulations or the application of the adjudicated section or provision to any other person, situation, or circumstance. The Environmental Quality Council declares that it would have

adopted the valid portions and applications of this chapter without the invalid part, and to this end the provisions of this chapter are declared to be severable.

Section 2. Requirements to Demonstrate Financial Assurance.

(a) Financial assurance requirement for new nonmunicipally owned solid waste management facilities: Financial assurance and compliance with the department's rules and regulations will be required of all new nonmunicipally owned facilities, as specified by Section 1(b) of this chapter, prior to issuance of a permit.

(b) Financial assurance requirement for existing nonmunicipally owned solid waste management facilities: Compliance with these financial assurance rules and regulations will be required of all existing nonmunicipally owned solid waste management facilities as specified by Section 1(b) of this chapter no later than June 8, 1991.

(c) Financial assurance requirement for conditionally exempt facilities: Financial assurance will be required of all existing, conditionally exempt solid waste management facilities specified in Section 1(b) (i) (E) :

(i) If the director determines the facility is in violation of the department's rules and regulations resulting in the release of contamination to the air, land or water, the director shall issue an order to the operator of the regulated facility to show cause why financial assurance is not required. Opportunity for a public hearing before the council shall be provided. If a hearing is requested the director shall inform all interested parties of the time and place of the hearing. Upon failure of the operator to show cause why financial assurance should not be required, the council shall require financial assurance for a period of time needed to secure remedial action. The financial assurance requirement may be removed when the violations have been corrected to the director's satisfaction. No financial assurance requirement shall be unreasonably prolonged.

(ii) The financial assurance requirement specified in paragraph (c) of this section shall become effective upon thirty (30) days notice to the applicant.

(d) Financial assurance requirements for municipally-owned or operated solid waste landfills regulated under Chapter 2 of these rules and regulations: Compliance with these financial assurance rules and regulations will be required of all new and existing municipally-owned or operated Type I solid waste landfills regulated under Chapter 2 of these rules and regulations effective April 9, 1997. Compliance for Type II solid waste landfills regulated under Chapter 2 of these rules and regulations will be required effective October 9, 1997. Notwithstanding these effective dates, if the effective date for compliance with financial assurance requirements for any category of existing sanitary landfills contained in 40 CFR part 258 is modified by the U.S. Environmental Protection Agency, then the effective dates for compliance specified by this subsection shall be the modified USEPA date, for the applicable category of landfills. Compliance shall be demonstrated as follows:

(i) For financial assurance for the costs of closure and post-closure care, operators shall demonstrate compliance using either the requirements of Sections 3 through 8 of these rules and regulations, or the requirements of Section 9;

(ii) For financial assurance for the costs of corrective action requirements, if needed, operators shall demonstrate compliance using the requirements of Sections 3 through 8 of these rules and regulations.

### Section 3. Coverage.

(a) General purpose and scope: Permits for regulated facilities require closure, post-closure and corrective action financial assurance plans as prescribed in this chapter for the purpose of assuring that operators of these facilities are financially responsible for protection of public health and the environment. This chapter contains general requirements governing closure, post-closure care and corrective action for violations of a permit, standard, rule or requirement. These

requirements may be supplemented by site specific closure, post-closure care and corrective action permit conditions. Together with the factors used to produce cost estimates, these maintenance requirements form the basis of the financial assurance standards included in this chapter.

(b) Closure and post-closure requirements:

(i) Notification:

(A) An operator intending to close a regulated facility shall notify the administrator of the intention to do so at least 180 days prior to the anticipated date for initiation of closure. Simultaneous notice shall be made by the operator to the governing body of each locality and adjacent property owners by certified or registered mail.

(B) If the facility has been open to the general public, the operator shall publish notice of closure in an area newspaper, as well as post one sign at each facility access point notifying all persons of the closing and prohibition against further receipt of waste materials. Further, suitable barriers shall be installed at former accesses to prevent new waste from being deposited.

(ii) Closure and post-closure standards:

(A) Closure and post-closure maintenance shall occur in accord with approved plans. A closure plan and a post-closure plan shall be submitted with the permit application. The operator shall submit a revised closure plan and post-closure plan to the administrator for review and approval as necessary to describe any plan changes.

(B) The operator shall close the facility in a manner that minimizes the need for post-closure maintenance and controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, the post-closure escape of leachate, surface run-off or waste decomposition products to the groundwater, surface water or the atmosphere. The post-closure monitoring period shall continue for a minimum of thirty (30) years after the date of completing

closure of the regulated facility, unless shortened by the director under Chapter 2, Section 7(b) of these rules and regulations. The minimum post-closure monitoring period shall be extended if the director determines it is needed to protect human health and the environment.

(iii) Inspection:

(A) The administrator shall inspect all closed regulated facilities to determine if the closure is complete and adequate in accordance with the approved plan after being notified by the operator that closure has been completed. The administrator shall provide written inspection results to the operator of a closed facility after the inspection. If the closure is not satisfactory, the administrator shall specify necessary construction or such other steps as may be appropriate to bring unsatisfactory sites into compliance with closure requirements.

(B) Notification by the administrator that the closure is satisfactory does not relieve the operator of responsibility for corrective action in accordance with regulations of the department to prevent or abate problems caused by the regulated facility which are subsequently discovered.

(c) Corrective action requirements.

(i) Notification:

(A) The administrator shall notify the operator of the need to take corrective action to remedy a violation of a permit condition, standard, rule or requirement relating to a regulated facility. The notification shall describe the nature of the violation.

(B) If deemed necessary by the administrator, the operator will be required to close the facility and cease further receipt of waste materials.

(C) If the facility is closed, the operator shall post one sign notifying all persons of the closing and prohibition against further receipt of waste materials. Further, suitable barriers shall be installed

at former accesses to prevent new waste from being deposited.

(ii) Remediation activities: In the event of a release, the operator shall:

(A) Initiate immediate measures to:

(I) Prevent further release to the environment.

(II) Prevent further migration of the released substance into surrounding soils and waters of the state.

(III) Identify, monitor and mitigate any safety hazards or health risks associated with the violation.

(B) Prepare a plan to conduct an investigation of the release, the release site and any surrounding area which may be affected by the release. The plan shall include:

(I) A comprehensive subsurface investigation to define the extent and degree of contamination.

(II) A schedule for conducting the investigation.

(III) A cost estimate for a third party to perform the tasks identified by the plan.

(C) Submit the investigation plan to the administrator within thirty (30) days. The extent of contamination study should begin as soon as the plan has been approved and all necessary permits obtained.

(D) Conduct the extent of contamination study in accordance with the approved plan and submit a written report of the findings to the administrator.

(E) If required by the administrator, develop a comprehensive plan for mitigation and cleanup.

The remediation plan shall be submitted to the administrator for approval. The remediation plan shall be implemented as soon as the administrator has approved the plan and all necessary permits have been obtained. The remediation plan shall contain an estimate of the costs for a third party to perform the tasks identified by the plan.

(d) Financial assurance: In order to assure that the costs associated with protecting the public health and safety from the consequences of an abandonment, or a failure to properly execute closure, post-closure care or required corrective action and cleanup of a regulated facility are recovered from the operator of such a facility, the operator shall provide financial assurance in one, or a combination of the forms described in this chapter including a self bond, a surety bond, a federally insured certificate of deposit, government-backed securities, an irrevocable letter of credit, or cash. Such financial assurance shall be in the amount calculated as the cost estimate using the procedures set forth in Sections 3(e)(i), 3(e)(ii) and 3(e)(iii) of this chapter. Evidence of the selected forms of financial assurance shall be filed with the director as part of the permit application procedures and prior to the issuance of an operating permit. The director may reject the proposed forms of assurance of financial responsibility if the evidence submitted does not adequately assure that funds will be available as required by these rules. The operator shall be notified in writing within sixty (60) days of receipt of the evidence of financial assurance of the decision to accept or reject the proposed forms of financial assurance.

(e) Cost estimates:

(i) Cost estimate for facility closure:

(A) In submitting a closure plan as required by these regulations, the operator of a regulated facility shall include therein an itemized written estimate of the cost of closing the facility. The estimated closing cost shall be determined by the director on a case-by-case basis, considering information supplied by the operator. Such costs shall be based on the work

required for a third party contractor. If written bids are used to estimate costs, the director may obtain additional bids to substantiate the accuracy of the estimated costs.

(B) The estimated closing cost shall be based on the work required for a third party contractor to effect proper closure at the most expensive point in the life of the facility. Those factors to be considered in estimating the closure cost shall include:

(I) The size and topography of the site.

(II) The daily or weekly volume of waste to be received at the site.

(III) Availability of cover and fill material needed for site grading.

(IV) The type of waste to be received at the site.

(V) Disposal method and sequential disposal plan.

(VI) The location of the site and the character of the surrounding area.

(VII) Requirements for surface drainage.

(VIII) Operation and maintenance of the leachate collection and treatment system, and the off-site disposal of leachate.

(IX) Environmental quality monitoring system.

(X) Structures and other improvements to be dismantled and removed. Salvage values cannot be used to offset demolition costs.

(XI) Site storage capacity for solid waste, incinerator residue and compost material.

(XII) Off-site disposal requirements.

(XIII) Vector control requirements.

(XIV) A minimum of fifteen percent (15%) variable contingency fee to cover other closure costs as determined appropriate by the director.

(XV) Other site specific factors.

~~(C) In lieu of the procedures specified in subsection (B) of this section, closure costs for low-hazard/low-volume transfer, treatment and storage facilities, excluding mobile transfer, treatment and storage facilities, may be estimated as follows:~~

~~(I) \$0.15 per gallon for used oil or used antifreeze management units; or~~

~~(II) \$1 per tire for scrap tire management units; or~~

~~(III) \$1,000 per 100,000 cubic feet for wood waste management units; or~~

~~(IV) \$500 per facility for all other types of low-hazard/low-volume facilities.~~

(D) Revised closure cost estimates will be submitted to the director as specified in this subsection. When the revised estimates are approved by the director, the operator shall submit revised financial assurance for the revised closure costs.

(I) If written bids are used to estimate closure costs, the operator shall provide revised closure cost estimates on an annual basis.

(II) If written bids are not used to estimate closure costs, the operator shall provide revised closure cost estimates every four years or with the permit renewal application, whichever comes first.

(ii) Cost estimate for facility post-closure:

(A) In submitting a closure plan as required by these regulations, the operator of a regulated facility shall include therein a written estimate of the cost of post-closure care, monitoring and maintenance. Unless on-site disposal of wastes or residues from the treatment or storage of wastes is planned or required, an incinerator, resource recovery facility, compost facility or storage surface impoundment will not be required to include a post-closure cost estimate in its closure plan. The estimated post-closure cost shall be determined by the director on a case-by-case basis considering information supplied by the operator. Such costs shall be based on the work required for a third party contractor. If written bids are used to estimate costs, the director may obtain additional bids to substantiate the accuracy of the estimated costs.

(B) Those factors to be considered in estimating post-closure maintenance costs shall include:

(I) The size and topography of the site.

(II) The type and quantity of waste received.

(III) Disposal method and sequential disposal plan.

(IV) The potential for significant leachate production and the possibility of contaminating water supplies.

(V) Environmental quality monitoring systems.

(VI) Soil conditions.

(VII) The location of the site and the character of the surrounding area.

(VIII) A minimum of fifteen percent (15%) contingency fee to cover other post-closure costs as determined appropriate by the director.

(IX) Other site specific factors.

(C) Estimated costs of post-closure activities shall be determined on a case-by-case basis. Revised post-closure cost estimates will be submitted to the director on an annual basis as specified in this subsection. When the revised estimates are approved, the operator shall submit revised financial assurance for the revised post-closure costs.

(I) If written bids are used to estimate post-closure costs, the operator shall provide revised post-closure cost estimates on an annual basis.

(II) If written bids are not used to estimate post-closure costs, the operator shall provide revised post-closure cost estimates every four years or with the permit renewal application whichever comes first.

(iii) Cost estimate for corrective action:

(A) For solid waste management facilities regulated under W.S. 35-11-504, the operator shall provide a supplemental financial assurance in an amount sufficient to meet the requirements of Section 3(c) of this chapter no later than thirty (30) days after the director approves the investigation or mitigation plan under Section 3(c)(ii)(C) or (E).

(B) The factors to be considered in estimating the cost of corrective actions and cleanup of a release shall include the following:

(I) Soils, geologic and hydrogeologic conditions at the site.

(II) The type and quantity of waste received.

(III) Disposal method and sequential disposal plan.

(IV) The potential for significant leachate production and the possibility of contaminating groundwater.

(V) Environmental quality monitoring systems.

(VI) The location of the site and the character of the surrounding area.

(VII) A minimum of fifteen percent (15%) contingency fee to cover other corrective action and cleanup costs as determined appropriate by the director.

(VIII) The ability of the facility to prevent and detect a release and to facilitate cleanup activities. The criteria used to evaluate this ability shall include design, construction, operation, monitoring and contingency plans submitted as part of the application package.

(IX) The class, use, value and environmental vulnerability of surface and groundwater resources which may be impacted by a release.

(X) Other site specific factors.

(f) Financial assurance for facility closure, post-closure and corrective action:

(i) General:

(A) For each regulated facility for which a permit is applied, financial assurance shall be provided for closure and post-closure activities, and for corrective action if required under Section 3(e)(iii).

(B) Determination of the financial assurance requirements for corrective action and cleanup of commercial oil field waste disposal facilities will be made by the Water Quality Division when the construction permit application is evaluated.

(ii) Forms of financial assurance: Financial assurance may be provided in one or a combination of the following forms executed in the amount calculated as the estimated closure and post-closure costs in accordance with W.S. 35-11-504(a)(i). These forms may also be available for financial assurance for corrective actions

at a regulated facility.

- (A) Self bond;
- (B) Surety bond;
- (C) Federally insured certificates of deposit;
- (D) Government-backed securities;
- (E) Cash;
- (F) Letters of credit.

(g) Transfer of permits: Permits may be transferred from one operator to another only if the new operator can demonstrate compliance with the financial assurance requirements of this chapter.

#### Section 4. Forms of Financial Assurance.

(a) Self bonding:

(i) Initial application to self bond: Initial application to self bond shall be made at the time the operator makes written application to the director to construct, operate or modify a regulated facility. The application shall be on forms furnished by the director and shall contain:

(A) Identification of operator by:

(I) For corporations, name, address, telephone number, state of incorporation, principal place of business and name, title and authority of person signing application, a corporate resolution authorizing the application, and statement of authority to do business in the State of Wyoming, or

(II) For all other forms of business enterprises, name, address and telephone number and statement of how the enterprise is organized, law of the state under which it is formed, place of business, and relationship and authority of the person signing the

application.

(B) Amount of bond required, to be determined in accordance with W.S. 35-11-504(a)(i) or W.S. 35-11-306(d). If the self bond amount is proposed to be less than the full bond amount, the amount which is proposed to be under a self bond is the bond required.

(C) Type of operation and anticipated dates performance is to be commenced and completed.

(D) Brief chronological history of business operations conducted within the last five (5) years which would illustrate a continuous operation for five (5) years immediately preceding the time of application.

(I) The director may allow a joint venture or partnership with less than five (5) years of continuous operation to qualify under this requirement, if each member of the joint venture or partnership has been in continuous operation for at least five (5) years immediately preceding the time of application.

(II) When calculating the period of continuous operation, the director may exclude past periods of interruption to the operation of the business entity that were beyond the applicant's control and that do not affect the applicant's likelihood of remaining in business during the proposed operation of the regulated facility.

(E) Information in sufficient detail to show good faith performance of past operation and closure/post-closure obligations.

(F) A statement, in detail, to show a history of financial solvency. For an initial bond, each operator must provide audited financial statements supporting the following comparative documents, prepared and certified by an independent Certified Public Accountant who, by reason of education, experience or special training, and disinterest, is competent to analyze and interpret the operator's financial solvency. All statements shall be prepared following generally accepted

principles of accounting.

(I) A comparative balance sheet which shows assets, liabilities and owner equity for five (5) years. The operator may provide common-size documents for confidentiality.

(II) A comparative income statement which shows all revenues and expenses for five (5) years. The operator may provide common-size documents for confidentiality.

(III) A report for the most recently completed fiscal year containing the accountant's audit opinion or review opinion of the balance sheet and income statement with no adverse opinion.

(IV) Notwithstanding the language in (F) above, unaudited financial statements may be submitted to support the comparative documents where current fiscal year quarters have ended but a CPA opinion has not yet been obtained because the fiscal year has not yet ended.

(G) Financial information in sufficient detail to show that the operator meets one of the following criteria (the specific criterion relied upon shall be identified).

(I) The operator has a rating for all bond issuance actions over the past five (5) years of "A" or higher as issued by either Moody's Investor Service or Standard and Poor's Corporation (the rating service should be identified together with any further breakdown of specific ratings);

(II) The operator has a tangible net worth of at least \$10 million, and a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater. The two ratio requirements must be met for the past year, and documented for the four (4) years preceding the past year. Explanations should be included for any year where the ratios fall below the stated limits.

(III) The operator's fixed assets in the United States total at least \$20 million, and the

operator has a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater. The two ratio requirements must be met for the past year and documented for the four (4) years preceding the past year. Explanations should be included for any year where the ratios fall below the stated limits.

(IV) If the operator chooses (II) or (III), the two ratios shall be calculated with the proposed self bond amount added to the current or total liabilities for the current year. The operator may deduct the costs currently accrued for reclamation which appear on the balance sheet.

(H) A statement listing any notices issued by the Securities and Exchange Commission or proceedings initiated by any party alleging a failure to comply with any public disclosure or reporting requirements under the securities laws of the United States. Such statement shall include a summary of each such allegation, including the date, the requirement alleged to be violated, the party making the allegation, and the disposition or current status thereof.

(I) A statement which:

(I) Identifies by name, address and telephone number, a registered office which may be but need not be, the same as the operator's place of business,

(II) Identifies by name, address and telephone number, a registered agent, which agent must be either an individual resident in this state, whose business office is identical with such registered office, or a domestic corporation, or a foreign corporation authorized to transact business in the state, having a business office identical with such registered office. The registered agent so appointed by the operator shall be an agent to such operator upon whom any process, notice or demand required or permitted by law to be served upon the operator may be served.

(III) Acknowledges that if the operator fails to appoint or maintain a registered agent

in this state, or whenever any such registered agent cannot be reasonably found at the registered office, then the Wyoming Secretary of State shall be an agent for such operator upon whom any process, notice or demand may be served. In the event of any such process, the Wyoming Secretary of State shall immediately cause one copy of such process, notice or demand to be forwarded, by registered or certified mail, to the operator at his principle place of business. The Wyoming Secretary of State shall keep a record of all processes, notices, or demands served upon him under this paragraph, and shall record therein the time of such service and his action with reference thereto.

(IV) Acknowledges that should the operator change the registered office or registered agent, or both, a statement indicating such change shall be filed immediately with the Solid and Hazardous Waste Division.

(V) Acknowledges that nothing herein contained shall limit or affect the right to serve any process, notice or demand required or permitted by law to be served upon an operator in any other manner now or hereafter permitted by law.

(J) The director may accept a written guarantee for an operator's self bond from a parent corporation guarantor or from a federal agency, if the guarantor or federal agency satisfies the financial criteria of this chapter as if it were the operator. The operator must only supply information addressing requirements not met by the parent corporation guarantor. The terms of the parent corporate or federal agency guarantee shall provide for the following:

(I) If the operator fails to complete the closure/post-closure plan the guarantor shall do so or the guarantor shall be liable under the indemnity agreement to provide funds to the state sufficient to complete the reclamation plan, but not to exceed the bond amount.

(II) The parent corporate or federal agency guarantee shall remain in force unless the guarantor sends notice of cancellation by registered or

certified mail to the operator and to the director at least ninety (90) days in advance of the cancellation date, and the director accepts the cancellation. The cancellation shall be accepted by the director if the operator obtains a suitable replacement bond before the cancellation date, if the lands for which the self bond, or portion thereof, was accepted have not been disturbed, or if the lands have been released under W.S. 35-11-504.

(K) For the director to accept a regulated facility operator's self bond, the total amount of the outstanding and proposed self bond of the operator shall not exceed 25 percent (25%) of the operator's tangible net worth in the United States. For the director to accept a corporate guarantee, the total amount of the parent corporation guarantor's present and proposed self bonds and guaranteed self bonds shall not exceed 25 percent (25%) of the guarantor's tangible net worth in the United States.

(ii) Approval or denial of operator's self bond application:

(A) The director, within sixty (60) days of the operator's submission of all materials necessary to base a decision on the application shall:

(I) Approve or reject such application and declare in writing its reasons for such action to the operator or his registered agent. The decision shall be based on the information submitted and shall be sufficient to meet the demonstrations required by W.S. 35-11-504(a).

(II) If a rejection is based on inadequate information or failure of the operator to supply all necessary material, the director shall allow the operator thirty (30) days to remedy the deficiencies. Such corrections shall be made to the satisfaction of the director. The director shall have an additional sixty (60) days to approve or reject the corrected application.

(B) If the director accepts an uncollateralized self bond, an indemnity agreement shall be submitted subject to the following requirements:

(I) The indemnity agreement shall be executed by all persons and parties who are to be bound by it, including the parent corporation or federal agency guarantor, and shall bind each jointly and severally.

(II) Corporations applying for a self bond or parent corporation guaranteeing a subsidiary's self bond shall submit an indemnity agreement signed by two corporate officers who are authorized to bind the corporation. A copy of such authorization shall be provided to the director. A federal agency guaranteeing an operator's self bond shall submit an indemnity agreement signed by two officers of the agency who are authorized to bind the agency and a copy of their authorization. The agency shall also submit documents supporting the availability of a cause of action against the federal agency for performance under the indemnity agreement.

(III) If the applicant is a partnership or joint venture, the agreement shall bind each partner or party who has a beneficial interest directly or indirectly, to the operator.

(IV) The indemnity agreement shall provide that the persons or parties bound shall pay all litigation costs including reasonable attorney fees incurred by the state in any successful effort to enforce the agreement against the operator.

(C) If the application is rejected based on the information required in Section 4(a)(i), or based on the limitation set in Section 4(a)(i)(K) then the operator may offer collateral and an indemnity agreement to support the self bond application. The indemnity agreement shall be subject to the requirements of (B) above.

(I) For any collateral offered to support a self bond, the following information shall be provided.

(1.) The value of the property. The property shall be valued at the difference between 75

percent (75%) of the fair market value and any reasonable expense anticipated by the director in selling the property. The fair market value shall be determined by an appraiser or appraisers appointed by the director and mutually acceptable to both the director and the operator. The appraisal shall be expeditiously made, and copies thereof furnished to the director and the operator. The expense of the appraisal shall be borne by the operator.

(2.) A description of the property satisfactory for deposit to further assure that the operator shall faithfully perform all requirements of Act. The director shall have full discretion in accepting any such offer.

a. Real property shall not include any lands in the process of being used for the transfer, treatment, processing, storage or disposal of solid wastes, reclaimed or subject to this application. The operator may offer any lands the bonds for which have been released or lands within a permit area which will not be affected. In addition, any land used as a security shall not be used for disposal, treatment, processing or storage while it is a security.

b. Securities shall only include those which are United States government securities or those state government securities acceptable to the director. Securities shall meet the requirements specified in the definition of "Collateral" found in Chapter 1, Section 1(e).

c. Personal property shall be in possession of the operator, shall be unencumbered, and shall not include:

i. Property which is already being used as collateral, or

ii. Goods which the operator sells in the ordinary course of his business, or

iii. Fixtures, or

iv. Certificates of

deposit which are not federally insured or where the depository is unacceptable to the director.

(3.) Evidence of ownership submitted in one of the following forms:

a. If the property offered for deposit is real property, the operator's interest must be evidenced by:

i. In the case of a federal or state lease, a status report prepared by an attorney, satisfactory to the director as disinterested and competent to so evaluate the asset, and an affidavit from the owner in fee establishing that the leasehold could be transferred upon default.

ii. In the case of a fee simple interest, a title certificate or similar evidence of title and encumbrances prepared by an abstract office authorized to transact business within the state and satisfactory to the director.

b. If the property offered for deposit is a security, the operator's interest must be evidenced by possession of the original or a notarized copy of the certificate or a certified statement of account from a brokerage house.

c. If the property offered for deposit is personal property as defined in Chapter 1, Section 1(e) (i) (K), evidence of ownership shall be submitted in the form satisfactory to the director to establish unquestionable title to the property to the operator.

(II) In addition to submitting the above information, if the operator offers personal property as collateral to support a self bond, he must meet the financial criteria contained in (1.) or (2.) following:

(1.) The operator must have a tangible net worth of at least \$10 million, a ratio of total liabilities to net worth of 3.0 times or less, and a

ratio of current assets to current liabilities of 1.0 times or greater. The two ratios shall be calculated with the proposed self bond amount added to the current or total liabilities for the current year. The operator may deduct the costs currently accrued for reclamation which appear on the balance sheet.

(2.) The operator must have fixed assets in the United States that total at least \$20 million, a ratio of total liabilities to net worth of 3.0 times or less, and a ratio of current assets to current liabilities of 1.0 times or greater. The two ratios shall be calculated with the proposed self bond amount added to the current or total liabilities for the current year. The operator may deduct the costs currently accrued for closure/post-closure which appear on the balance sheet.

(III) If the director accepts personal property as collateral to support a self bond, the director shall require:

(1.) Quarterly maintenance reports prepared by the operator, and

(2.) A perfected, first-lien security interest in the property used, in favor of the Wyoming Department of Environmental Quality. This security interest shall be perfected by filing a financial statement or taking possession of the collateral in accordance with (IV)(1.) below.

(3.) In addition, the department may also require quarterly inspections of the personal property by a qualified representative of the department.

(IV) If the director accepts any property as collateral to support a self bond, the director shall, as applicable, require possession by the director of the personal property, or a mortgage or security agreement executed by the operator in favor of the Department of Environmental Quality. The requirement shall be that which is sufficient to vest such interest in the property in the director to secure the right and power to sell or otherwise dispose of the property by public or private proceedings so as to insure reclamation of the

affected lands in accordance with the act. Personal property collateral to support a self bond shall be secured under the provisions of the Uniform Commercial Code as required by (2.) below.

(1.) Any mortgage shall be executed and duly recorded as required by law so as to be superior to all other liens, mortgages or encumbrances pertaining to the real property in question.

(2.) Any security interest created by a security agreement shall be perfected by filing a financing statement or taking possession of the collateral in accordance with W.S. 34-21-950 through W.S. 34-21-955 (1977). The director shall have all rights and duties set forth in W.S. 34-21-926 (1977) when the collateral is in its possession as a secured party, as defined in W.S. 34-21-905(a) (ix). Any money received from the collateral during this period of time shall be remitted to the operator. When the collateral is left in the possession of the operator, the security agreement shall require that, upon default, the operator shall assemble the collateral and make it available to the director at a place to be designated by the director which is reasonably convenient to both parties.

(V) The operator may, with written consent from the director, substitute for any of the property held hereunder other property upon submittal of all information required under this subsection and compliance with all requirements of this subsection so as to secure all obligations under all periods of time as they relate to disposal operations.

(VI) For collateral posted to support a self bond, all persons with an interest in the collateral shall be notified by the operator of the posting, and of all other actions affecting the collateral.

(iii) Renewal bonds:

(A) Information for the renewal bond under the self bonding program which shall accompany the annual report shall include:

(I) Amount of bond required, which shall be determined in accordance with W.S. 35-11-504. If the self bond amount is proposed to be less than the full bond amount, the amount which is proposed to be under a self bond is the bond required.

(II) Financial information in sufficient detail to show that the guarantor still meets one of the criteria in Section 4(a)(i)(G), and the limitation in Section 4(a)(i)(K). The director requires financial statements for the most recently completed fiscal year together with an independent Certified Public Accountant's audit opinion or review opinion of the financial statements with no adverse opinion. Additional unaudited information may be required by the director.

(III) If the director has accepted a mortgage, any evidence of change in value, title and possession of the property shall be submitted.

(IV) If the director deems it necessary to revalue any asset, it may appoint the appraiser or appraisers mutually acceptable to the director and the operator. Any such reappraisal shall be expeditiously made, and copies thereof furnished to the director and the operator. The expense of the appraisal shall be borne by the operator. The findings of the appraisal shall be final and binding unless both parties agree to a reappraisal.

(V) For regulated facility operators using personal property as collateral to support a self bond, the operator's current financial information showing continuing compliance with Section 4(a)(ii)(C)(II) of this chapter.

(B) If the director has authorized a parent corporate guarantee, the parent corporation shall supply all information required under subsection (iii)(A)(II) of this section.

(C) Any valid initial self bond shall carry the right of successive renewal as long as the above listed information is submitted which demonstrates that

the guarantor remains qualified under W.S. 35-11-504.

(iv) Substitution of the operator's self bond:

(A) The director may require the operator to substitute a good and sufficient corporate surety licensed to do business in the state if the director determines in writing that the self bond of the operator fails to provide this protection consistent with the objectives and purposes of W.S. 35-11-504. The director shall require this substitution if the financial information submitted or requested under Section (4) (a) (ii) (A) (II) indicates that the operator no longer qualifies under the self bonding program. Substitution of an alternate bond shall be made within thirty (30) days. The operator may also request substitution. This request is contingent upon the operator meeting all the requirements of the bond provisions, W.S. 35-11-504. If these requirements are met, the director shall accept substitution.

(B) If the operator fails within sixty (60) days to make a substitution for the revoked self bond with a corporate surety, cash, governmental securities, or federally insured certificates of deposit, or irrevocable letters of credit, the director shall suspend or revoke the permit until such substitution is made.

(C) All methods of substitution shall be made in accordance with the bonding provisions in W.S. 35-11-504. The director shall either:

(I) Require substitution of a good and sufficient corporate surety licensed to do business in the state that will stand as surety so as to cover all periods of time as they relate to disposal operations, or

(II) Retain from the operator sufficient assets within the department so as to cover that period of time of the disposal operation which is not covered by the substituted surety. Those assets not retained shall be returned to the operator within sixty (60) days free from the department's encumbrances, liens, mortgages or security interests.

(v) Requirements for forfeiture and release:

(A) All requirements as to bond forfeiture proceedings and the release of bonds shall be consistent with W.S. 35-11-504, excepting the requirements as to notification to the surety. When the director has required a mortgage, and the bond has been forfeited, foreclosure procedures shall be in accordance with W.S. 34-4-101 through 34-4-113 (1977).

(B) For self bonds supported by collateral, upon bond release property return shall be of that form sufficient for the director to release that portion of the interest or mortgage commensurate with the amount of the bond released less any disposed of in accordance with the mortgage or indemnity agreement.

(b) Surety bonds:

(i) A corporate surety shall not be considered good and sufficient for purposes of W.S. 35-11-504 or unless:

(A) It is licensed to do business in the state;

(B) The estimated bond amount does not exceed the limit of risk as provided for in W.S. 26-5-110, nor raise the total of all bonds held by the applicant under that surety above three times the limit of risk;

(C) The surety agrees:

(I) Not to cancel bond, except as provided for in W.S. 35-11-504 or where the director gives prior written approval of a good and sufficient replacement surety with transfer of the liability that has accrued against the operator on the permit area;

(II) To be jointly and severally liable with the permittee;

(III) To provide immediate written notice to the director and operator once it becomes unable or may become unable due to any action filed against it to

fulfill its obligations under the bond.

(ii) The provisions applicable to cancellation of the surety's license in W.S. 35-11-504 shall also apply if for any other reason the surety becomes unable to fulfill its obligations under the bond. Upon such occurrence the operator shall provide the required notice. Failure to comply with this provision shall result in suspension of the permit.

(c) Federally insured certificate of deposit: The director shall not accept an individual certificate of deposit in an amount in excess of \$100,000 or the maximum insurable amount as determined by the FDIC or the Federal Savings and Loan Insurance Corporation. Such certificates of deposit shall be made payable to the department both in writing and upon the records of the bank issuing these certificates. The director shall require the banks issuing these certificates to waive all rights of set off or liens against the certificates. The bond amount may be calculated to include any amount which would be deducted as a penalty for payment before maturity.

(d) Government-backed securities: In lieu of a bond, the operator or its principal may deposit government securities registered solely in the department's name and backed by the full faith and credit of the United States.

(e) Cash: In lieu of a bond, the operator or its principal may deposit cash in a bank account in the department's name.

(f) Letters of credit:

(i) Letters of credit shall be subject to the following conditions:

(A) The letter shall be irrevocable during its term, which shall coincide with the annual bonding period. The director may approve the use of letters of credit as security in accordance with a schedule approved with the permit. Any bank issuing a letter of credit shall notify the director in writing at least ninety (90) days prior to the maturity date of such letter or the expiration of the letter of credit agreement. Letters of

credit utilized as security in areas requiring continuous bond coverage shall be collected by the director if not replaced by other suitable evidence of financial responsibility at least thirty (30) days before the expiration date of the letter of credit agreement;

(B) The letter must be payable to the department in part or in full upon demand and receipt from the director of a notice of forfeiture issued in accordance with W.S. 35-11-504;

(C) The letter shall not be in excess of 10 percent (10%) of the bank's capital surplus account as shown on a balance sheet certified by a Certified Public Accountant;

(D) The director shall only accept bank letters of credit issued in accordance with W.S. 13-3-402;

(E) The letter of credit shall provide that:

(I) The bank will give written notice within three (3) working days to the permittee and the director of any notice received or action filed alleging the insolvency or bankruptcy of the bank, or alleging any violations of regulatory requirements which could result in suspension or revocation of the bank's charter or license to do business,

(II) In the event the bank becomes unable to fulfill its obligations under the letter of credit for any reason, written notice shall be given immediately to the permittee and the director, and

(III) Upon the incapacity of a bank by reason of bankruptcy, insolvency, or suspension or revocation of its charter or license, the permittee shall be deemed to be without performance bond coverage in violation of the act. The director shall issue a notice of violation against any operator who is without bond coverage, specifying a reasonable period to replace bond coverage, not to exceed sixty (60) days. During this period the director or his or her designated representative shall conduct weekly inspections to ensure

continuing compliance with other permit requirements, the regulations and the act. If the notice is not abated in accordance with the schedule, a cessation order shall be issued.

(ii) Agent for service of process: The letter may only be issued by a bank organized to do business in the U.S. which identified by name, address, and telephone number an agent upon whom any process, notice or demand required or permitted by law to be served upon the bank may be served. Letters of credit from U.S. branches of foreign banks are not acceptable.

(A) If the bank fails to appoint or maintain an agent in this state, or whenever any such agent cannot be reasonably found, then the Wyoming Secretary of State shall be an agent for such bank upon whom any process, notice or demand may be served for the purpose of this chapter. In the event of any such process, the Wyoming Secretary of State shall immediately cause one copy of such process, notice or demand to be forwarded, by certified or registered mail to the bank at its principle place of business. The Wyoming Secretary of State shall keep a record of all processes, notices, or demands served upon him or her under this paragraph, and shall record therein the time of such service and his or her action with reference thereto;

(B) Nothing herein contained shall limit or affect the right to serve any process, notice or demand required or permitted by law to be served upon the bank in any other manner now or hereafter permitted by law.

#### Section 5. Bond or Other Forms of Financial Assurance Release.

(a) Any bond or other form of financial assurance may be canceled by the surety only after ninety (90) days written notice to the director, and upon receipt of the director's written consent, which may be granted only when the requirements of the bond have been fulfilled.

(b) When the director determines that the violation has been remedied or the damage abated, the director shall release that portion of the bond or financial assurance

instrument being held under W.S. 35-11-504(a). When the director determines that closure activities have been successfully completed at any regulated facility, the director shall release that portion of the bond or financial assurance being held to guarantee performance of activities specified in W.S. 35-11-504(a). The remaining portion of the bond or financial assurance shall be held for a period of not less than thirty (30) years after the date of facility closure, or so long thereafter as necessary to assure proper performance of any post-closure and corrective activities specified in W.S. 35-11-504(a) unless the post-closure period is terminated at an earlier date under Chapter 2, Section 7(b).

(c) Release of the owner or operator from the closure financial assurance requirements of this chapter: Within sixty (60) days after receiving certification from the owner or operator that closure has been accomplished in accordance with the closure plan and the provisions of these regulations, the director shall verify that proper closure has occurred. Unless the director has reason to believe that closure has not been in accordance with the closure plan, the director shall notify the owner or operator in writing that the owner or operator is no longer required to maintain financial assurance for closure of the particular facility. Such notice shall release the owner or operator only from the requirements for financial assurance for closure of the facility; it does not release the owner or operator from legal responsibility for meeting the closure or post-closure standards. If no written notice or termination of financial assurance requirements or failure to properly perform closure is received by the owner or operator within sixty (60) days after certifying proper closure, the owner or operator may petition the director for an immediate decision in which case the director shall respond within ten (10) days after receipt of such petition.

(d) Release of the owner or operator from the post-closure financial assurance requirements of this chapter: Within sixty (60) days of the director's determination under Chapter 2, Section 7(b), that the facility has been adequately stabilized, the director shall notify the owner or operator in writing that the owner or operator is no

longer required to maintain financial assurance for the post-closure care of the regulated facility. Such notice shall release the owner or operator only from the requirements for financial assurance for post-closure care of the facility; it does not release the owner or operator from legal responsibility to take corrective action as necessary to protect public health or the environment from releases from the facility.

Section 6. Bond or Other Forms of Financial Assurance Recalculations. Financial assurance amounts will be recalculated on a yearly basis.

Section 7. Bond or Other Forms of Financial Assurance Forfeiture.

(a) Bond or other financial assurance forfeiture proceedings shall occur only after the director provides notice to the operator and any surety in accordance with W.S. 35-11-504(h) that a violation exists and the council has approved the request of the director to begin forfeiture proceedings.

(b) With the approval of the council the director may:

(i) Expend forfeited funds to remedy and abate the circumstances with respect to which any financial assurance was provided; and

(ii) Expend funds from the trust and agency account under W.S. 35-11-504(a) to remedy and abate any immediate danger to human health, safety and welfare.

(c) If the forfeited bond or other financial assurance instrument is inadequate to cover the costs to carry out the activities specified in W.S. 35-11-504(a) or in any case where the director has expended trust and agency account monies, the attorney general shall bring suit to recover the cost of performing the activities where recovery is deemed possible.

Section 8. Incapacity of Institution Issuing Financial Assurance. An owner or operator who fulfills the requirements of Section 3 of this chapter by obtaining

a surety bond or a certificate of deposit or irrevocable letter of credit will be deemed to be without the required financial assurance in the event of bankruptcy, insolvency or a suspension or revocation of the license or charter of the issuing institution. The owner or operator must establish other financial assurance within sixty (60) days of such event.

Section 9. Closure and Post-Closure Account for Municipally-Owned Solid Waste Disposal Facilities.

(a) Applicability: This section is applicable to municipally-owned or operated solid waste landfills regulated under Chapter 2 of these rules and regulations electing to participate in the state guarantee trust account [the account] provided under W.S. 35-11-515. Such facilities shall be known as participating facilities.

(b) Initial requirements: The requirements of this paragraph apply to participating facilities upon their initial election to participate in the account. The requirements of this paragraph also apply to participating facilities upon the, fourth and subsequent four-year anniversaries, following the initial election to participate in the account. Each facility shall:

(i) Either prepare a closure and post-closure plan complying with Section 3(b)(ii), and containing a closure and post-closure cost estimate complying with Section 3(e)(i) and (ii) of this chapter, or calculate the facility closure and post-closure costs using a standard cost estimate prepared by the director~~the procedures in paragraph (d) of this section;~~ and

(ii) Calculate the remaining usable disposal capacity of the facility, expressed as years, using information from the facility permit application,~~or using the procedures in paragraph (e) of this section;~~ and

~~(iii) Calculate the annual amount to be paid to the account using the formula:~~

$$\text{Annual Amount} = \frac{0.03 \times (\text{Closure Cost} + \text{Post-Closure Cost})}{\text{Useable Capacity}}$$

(iii) Calculate the annual amount to be paid to the account using the following procedure:

(A) Calculate three percent (3%) of the sum of closure and post-closure costs using the following formula:

3% of the sum of closure and post-closure costs = (0.03(Closure cost - the operator's accumulated net assets earmarked for payment of the operator's closure costs)) + (0.03(Post-closure cost - the operator's accumulated net assets earmarked for payment of the operator's post-closure costs))

(I) The facility operator shall account for closure and post-closure liabilities and costs in accordance with Generally Accepted Accounting Principles and certify to the earmarking of the accumulated net assets, subject to audit.

(B) Calculate the balance due to the account by deducting the total of previous payments to the account from 3% of the sum of closure and post-closure costs.

Balance due = 3% of the sum of closure and post-closure costs - the total of previous payments to the account

(C) Calculate annual payments to the account by dividing the balance due by the years of remaining disposal capacity.

Annual payment = Balance due / years of remaining disposal capacity

(iv) For existing Type I facilities, the owner shall pay the amount in paragraph (b)(iii) of this section to the department no later than April 9, 1997 (no later than October 9, 1997 for existing Type II facilities). Existing nonparticipating Type I facilities making an initial election to participate in the account after April 9, 1997 (after October 9, 1997 for existing Type II facilities), shall pay the amount in paragraph (b)(iii) of

this section prior to receiving approval from the director to terminate any alternate form of financial assurance approved under Section 3(d) of this chapter;

(v) For new Type I facilities permitted after April 9, 1997 (after October 9, 1997 for new Type II facilities), the owner shall pay the amount in paragraph (b)(iii) of this section prior to the issuance of a permit from the director.

(c) Subsequent requirements: Each facility shall pay the amount specified in paragraph (b)(iii) of this section to the director no later than the anniversary dates following the initial election to participate in the account.

(d) Estimating closure and post-closure costs:

(i) Closure and post-closure costs may be calculated using a site specific cost estimate prepared by the operator or a standard cost estimate prepared by the director. ~~Closure costs shall be calculated by summing the costs for each item, in 1993 dollars, described in paragraphs (d)(i)(A) through (G) of this section. Closure cost estimates prepared in any calendar year subsequent to 1993 shall be inflated using the procedure in paragraph (k) of this section:~~

~~(A) Calculate the costs for application of final cover, seeding, fertilizer application, and mulching by determining the total acreage affected by solid waste disposal activities, including roads, buildings, fire lanes, past disposal trenches or areas, soil stockpile or borrow areas, and any other area which has been disturbed; multiply the total acreage by \$10,200.00 per acre;~~

~~(B) If a building is present at the facility, and no future use has been approved by the administrator for that building, calculate building demolition, removal and disposal costs by multiplying the total building square footage by \$6.00 per square foot;~~

~~(C) If groundwater or methane monitor wells are required to be installed by the permit, but have not yet been installed, calculate monitor well~~

~~installation costs by multiplying the total number of wells by \$2,400.00 per well for groundwater monitoring and \$1,300.00 per well for methane monitoring. For facilities without a valid permit, monitor well installation costs shall be calculated by assuming that four groundwater monitoring wells and four methane monitoring wells must be installed. If a permit application has been submitted, the applicant may calculate groundwater and methane well installation costs based on the monitoring system design proposed in the permit application;~~

~~(D) If the facility permit allows solid wastes to be held in storage at the facility, calculate final disposal costs for disposal of these wastes by multiplying the total allowed volume of wastes, in cubic yards, by \$10.00 per cubic yard;~~

~~(E) If perimeter fencing is required by the permit but not yet installed, calculate fence installation costs by multiplying the facility perimeter, in feet, by \$13.00 per lineal foot. For facilities without a valid permit, fence installation costs shall be calculated by assuming that the entire perimeter of the facility, less any access road, must be fenced;~~

~~(F) If the final facility survey by a licensed land surveyor has not been conducted, add \$3,600.00;~~

~~(G) If surface water diversion structures are required by the permit but have not yet been installed, calculate surface water diversion structure costs by multiplying \$1.00 per lineal foot of surface water diversion structure. For facilities without a valid permit, surface water diversion costs shall be calculated by assuming that a surface water diversion structure costing \$1.00 per lineal foot must be installed along the entire length of the longest dimension of one side of the boundary of the facility;~~

~~(H) Add an amount equal to 15 percent (15%) of the sum of the costs calculated in paragraphs (d) (i) (A) through (F) of this section, as a contingency amount.~~

~~(ii) Post-closure costs shall be calculated by summing the costs for each item described in paragraphs (d)(ii)(A) through (F) of this section, expressed in 1993 dollars. Post-closure cost estimates prepared in any calendar year subsequent to 1993 shall be inflated using the procedure in paragraph (k) of this section:~~

~~(A) Include a cost for annual inspections of the facility for thirty (30) years of \$22,000.00;~~

~~(B) Unless post-closure groundwater monitoring is not required by the facility permit, then calculate the costs of monitoring as follows:~~

~~(I) For Type I facilities, multiply the total number of monitor wells by \$12,000.00, to provide for annual monitoring for a period of thirty (30) years;~~

~~(II) For Type II facilities, multiply the total number of monitor wells by \$4,500.00, to provide for annual monitoring for a period of thirty (30) years;~~

~~(III) For facilities without a valid permit, assume that four groundwater monitor wells must be monitored annually for a period of thirty (30) years. If a permit application has been submitted, the applicant may calculate the groundwater monitoring costs based on the groundwater monitoring system design proposed in the permit application.~~

~~(C) Calculate the cost of perimeter fence maintenance and replacement by multiplying the facility perimeter, in feet, by \$12.00 per lineal foot;~~

~~(D) Calculate the cost of final removal and disposal of the perimeter fence by multiplying the facility perimeter, in feet, by \$2.00 per lineal foot;~~

~~(E) Unless post-closure methane monitoring is not required by the facility permit, then calculate the costs of monitoring by multiplying the total number of monitor wells by \$7,200.00, to provide for quarterly monitoring for a period of thirty (30) years. For facilities without a valid permit, methane monitoring~~

~~costs shall be calculated by assuming that four methane monitor wells must be monitored annually for a period of thirty (30) years. If a permit application has been submitted, the applicant may calculate methane monitoring costs based on the methane monitoring system design proposed in the permit application;~~

~~(F) Calculate the cost of surface water diversion structures maintenance by multiplying \$1.00 per lineal foot of surface water diversion structure;~~

~~(G) Add an amount equal to 15 percent (15%) of the sum of the costs calculated in paragraphs (d) (ii) (A) through (E) of this section, as a contingency amount.~~

~~(e) Calculating remaining disposal capacity: Calculate the remaining disposal capacity of the facility, in years, using the procedures in this paragraph:~~

~~(i) Determine the number of acres available within the permitted boundary of the facility for landfilling activities;~~

~~(ii) Determine the average number of people served by the facility, on an annual basis;~~

~~(iii) Calculate the remaining disposal capacity, in years, using the following formula:~~

$$\frac{\text{Number of Acres} \times 4240}{\text{Capacity, Years}} =$$

~~Number of People Served~~

(~~f~~e) Refunds from the account for closure guarantees: Following certification of closure by a registered professional engineer in accord with the requirements of Chapter 2, Section 7, the owner may apply to the director for a refund of that portion of the annual fee paid by the owner to the account for closure guarantee costs. If the director determines that closure activities have been adequately completed, the department shall, within thirty 30 days, approve a refund from the account equal to ninety percent (90%) of the total amount paid by the owner, less any expenditures from the account under

W.S. 35-11-515(k) which have not been recovered under W.S. 35-11-515(m) .

(~~g~~f) Refunds from the account for post-closure guarantees: Following certification of the proper completion of the post-closure period by a registered professional engineer in accord with the requirements of Chapter 2, Section 7, the owner may apply to the director for a refund of that portion of the annual fee paid by the owner to the account for post-closure guarantee costs. The director shall, within 30 days of the administrator's determination that the facility has been adequately stabilized in accord with the requirements of Chapter 2, Section 7(b), approve a refund from the account equal to ninety percent (90%) of the total amount paid by the owner, less any expenditures from the account under W.S. 35-11-515(k) which have not been recovered under W.S. 35-11-515(m) .

(~~h~~g) Election to withdraw as a participating facility: Upon the election by a facility owner to withdraw from participation in the account, the owner may apply to the director for a refund of the closure and post-closure annual fees paid to the account. The director shall, within thirty (30) days, approve a refund from the account equal to ninety percent (90%) of the total amount paid by the owner, less any expenditures from the account under W.S. 35-11-515(k) which have not been recovered under W.S. 35-11-515(m) . Prior to the director approving a refund for a withdrawing facility, the facility owner shall demonstrate compliance with the financial assurance requirements of this chapter as specified in Section 3(d) .

(~~i~~h) Use of a combination of financial assurance mechanisms: An owner may elect to participate in the account for purposes of demonstrating compliance only with the closure cost financial assurance requirement, only with the post-closure cost financial assurance requirement, or both. Any owner electing to participate in the account only for the purposes of satisfying the closure or post-closure cost financial assurance requirement shall use another financial assurance mechanism as specified in Section 3(d) of this chapter to complete his or her obligation to demonstrate adequate

financial assurance for both closure and post-closure costs.

(~~j~~i) Expenditures from the account: The director may authorize expenditures from the account if the facility owner, after receiving a notice of violation and order directing the performance of closure or post-closure obligation under this chapter or Chapter 2 of these rules and regulations, has failed to adequately perform such obligation. The director shall provide in any such order that failure to perform the closure or post-closure obligation will result in the director's authorizing an expenditure from the account. The amount to be expended shall be specified by the director in the order. The availability of an opportunity to appeal the order under W.S. 35-11-701(c) shall be considered the owner's opportunity to appeal the amount to be expended, under W.S. 35-11-515(k).

~~(k) Annual inflation factor to be used in estimating closure and post-closure costs:~~

~~(i) For the purpose of estimating closure and post-closure costs for facilities electing to participate in the state guarantee trust account, Section 9(d) of this chapter contains cost factors expressed in 1993 dollars. Any closure and post-closure cost estimate resulting from the use of these cost factors must be adjusted to account for inflation using the procedures in this paragraph.~~

~~(ii) During the active life of the facility, and through the end of the post-closure period, the owner or operator must adjust the closure and post-closure cost estimate for inflation once every four (4) years. The adjustment may be made by revising the closure and post-closure plan and cost estimates in accord with Sections 3(e)(i) and 3(e)(ii) of this chapter, or by recalculating the closure and post-closure costs using the cost factors in Section 9(d) of this chapter. If the owner or operator elects to use the cost factors contained in Section 9(d) of this chapter, they must first be adjusted for inflation.~~

~~(iii) The inflation factor to be used shall be derived from the most recent implicit price deflator for~~

~~gross national product published by the US Department of Commerce in its survey of current business, as specified in this subparagraph. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year(s).~~