TCEQ REGULATORY GUIDANCE
Waste Permits Division
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Guide for Preparing Site Operating Plans for Municipal Solid Waste Facilities

Texas Commission on Environmental Quality • PO Box 13087 • Austin, Texas • 78711-3087

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Purpose

The purpose of this guide is to assist municipal solid waste facilities with preparing a new or revised Site Operating Plan (SOP).

Under Texas Commission on Environmental Quality (TCEQ) municipal solid waste rules found in 30 TAC §330.51, an application for a municipal solid waste landfill permit must contain an SOP that discusses how the applicant plans to conduct operations at the site. Also, many existing permits and applications must be modified to include an updated SOP (see page 3).

This guide provides information, based on our current knowledge, experience, and published sources, for preparing an SOP meeting the intent of the rule. Stakeholder input is incorporated into this guide.

How to use this guide

This guide discusses the rules and SOP provisions that we at the TCEQ consider sufficient to enable site management and site operating personnel to conduct operations of a Type I or Type IV municipal solid waste landfill facility. Some aspects of non-landfill facilities are also discussed in this guide.

This guide is not intended to be used as rules or policy and does not include all acceptable practices. Examples given in this guide are not meant to be all inclusive, and they are not meant to be followed as a requirement. We present them merely to give an indication of the level of detail anticipated in SOPs.

To view applicable sections from rules in 30 Texas Administrative Code (TAC) Subchapter F, go to the TCEQ Web site, www.tceq.state.tx.us. Click on "Rules, Policy & Legislation," then "Rules and Rulemaking," and then "Download Rules."

Where to get more information

You can contact the Municipal Solid Waste Permits Section in the following ways:

Phone:	512/239-2334
Mail:	Municipal Solid Waster Permits Section, MC-124 Texas Commission on Environmental Quality P.O. Box 13087 Austin, TX 78711-3087
Fax:	512/239-6000

You can also visit our Web site at www.tceq.state.tx.us/nav/permits/msw.html

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What existing permits or applications require an SOP?

Permit modifications for landfills

Existing landfill permits: If you hold an existing landfill permit, you must apply for a noticed permit modification to incorporate the new requirements of Subchapter F of Chapter 330 into your existing SOP, in accordance with amendments made to §330.111 in November 2004. The noticed permit modification requirements are found in §305.70(k). Then any subsequent applications you make will be processed in accordance with Chapter 305, Subchapter D.

The TCEQ's executive director will determine a schedule for existing landfill permittees to submit an application to modify their permit to upgrade to the new standards. Until the executive director directs the holder of a landfill permit in writing to submit the application for modification, the landfill should continue to be operated under the existing permit.

In addition, timely submission of a request for a permit modification will qualify the owners or operators of existing landfills to continue operating under requirements contained in the existing permit until a final decision is made on the application. A permittee's initial application will be processed as a permit modification, and any subsequent applications will be processed as a permit amendment or a permit modification, whichever is appropriate.

Landfill permit applications pending as of December 2, 2004: These applications will be issued under the SOP rules in effect at that time the application was filed.

Landfill permit applications filed on or after December 2, 2004: These applications will be processed under the newly amended SOP rules.

All other landfill authorizations: For other existing authorizations, you can continue to operate under the SOP rules in effect December 2, 2004 until called in by the executive director.

Permit and registration modifications for non-landfill facilities

Non-landfill facilities are subject to the revised Subchapter F rules, to the same extent that they were subject to Subchapter F before rules were changed in November 2004. Non-landfill facilities are not required to file an application to modify their permits or registrations to comply with these rules.

While the commission is not requiring non-landfill facilities to initiate a permit or registration modification to comply with the amended rules, facilities that file applications after December 2, 2004 may be subject to the new rules.

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What content should be included in an SOP?

The SOP contains information about how the site operator will conduct operations at the site, but is not intended to be a comprehensive operating manual. The SOP represents the design engineer's general instruction for site management and site operating personnel to operate the site in a manner consistent with the engineer's design and the commission's rules to protect human health and the environment and prevent nuisances.

The SOP is Part IV of the permit application and consists of the information required by sections 330.111 through 330.139. At a minimum, the SOP must include provisions for site management and the site operating personnel to meet the general and site-specific requirements of these rules.

We recommend that you the applicant use the appropriate TCEQ permit application evaluation checklist in developing each SOP. These checklists can be found at: www.tceq.state.tx.us/permitting/waste_permits/msw_permits/perm_reg_mod.html

The SOP should include general instructions and, where necessary to meet the regulatory requirements, specific instructions, procedures, tables, and schedules for the subjects listed in the rules for SOPs.

A goal of this guide is to illustrate the expected level of detail for an SOP. Therefore, where example language is given in the following sections, the example language is used to give the writer of an SOP a sense of the level of detail expected. Example language is identified by "quote marks." The example language is not intended for use nor does it add requirements to be met by applicants and permittees.

1. Recordkeeping Requirements (§330.113)

Recordkeeping requirements of §330.113, direct the owner or operator to establish an organized library consisting of a copy of the facility permit, the site development plan, the site operating plan, the final closure plan, the post-closure maintenance plan, the landfill gas management plan, and any other plans required by permit along with all issued modifications, and any temporary authorizations granted. The facility record should also establish and maintain current files of all inspections, monitoring (to include results), activity logs, notifications sent to regulatory authorities, documents associated with special waste and prohibited waste, quarterly and annual waste acceptance rate, copies of correspondence and responses related to facility operation, a copy of staff training requirements and certification of current completion, and any other pertinent records. The operating record should be updated within seven working days of completion of the event or upon receipt of analytical data, whichever is the case. The site operating record must be maintained at the facility, or an alternate location approved by the executive director, and made available for inspection by TCEQ staff on request.

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The owner or operator should record and retain in the operating record the following information:

- location-restriction demonstrations;
- inspection records, training procedures, and notification procedures relating to excluding the receipt of prohibited waste;
- results from gas monitoring and any remediation plans relating to explosive and other gases;
- unit design documentation for the placement of leachate or gas condensate in a municipal solid waste landfill;
- demonstration, certification, findings, monitoring, testing, and analytical data relating to groundwater monitoring and corrective action;
- closure and post-closure care plans and any monitoring, testing, or analytical data relating to post-closure requirements;
- cost estimates and financial assurance documentation relating to financial assurance for closure and post-closure;
- information demonstrating compliance with the small community exemption criteria;
- copies of all correspondence and responses relating to the operation of the facility, modifications to the permit, approvals, and other matters pertaining to technical assistance;
- documents, manifests, trip tickets, etc., involving special waste;
- training records;
- personnel operator licenses;
- annual waste acceptance rate;
- any other document(s) as specified by the approved permit or by the TCEQ executive director.

In regard to an access breach under §330.116, a notice is required to be given to the commission's regional office to document when a breach is detected and when a repair is completed, if the repair is not completed within eight hours. The commission's regional office must be notified of the breach within 24 hours of detection. The breach must be temporarily repaired within 24 hours of detection and must be permanently repaired by the time specified to the commission's regional office when it was reported in the initial breach report. If a permanent repair can be made within eight hours of detection, no notice to the commission's regional office is required. It is recommended that a copy of these notices be retained in the operating record in accordance with §330.113(b)(9). Also, rules do not require records to be generated or retained to document when access inspections are conducted; however, it is recommended that a log of this activity be maintained for the purpose of demonstrating compliance.

Rules do not specifically require documentation of litter cleanup activities in a log, but it is recommended that a log of this activity be maintained for the purpose of demonstrating compliance with the once a day pick-up requirement. Please reference §§330.120 and 330.123.

Rules require mud and associated debris to be cleaned up at the access to the facility on the public roadway. Rules do not specifically require recordkeeping for this issue, but it is

recommended that records be kept to demonstrate compliance with the requirement. Please reference §§330.127.

Rules require that the TCEQ's regional office be notified of the occurrence of any fire related to municipal solid waste activities that cannot be extinguished within 10 minutes of detection. This notice must be made by telephone no later than four hours of fire detection and in writing within 14 days of detection. It is recommended that documentation of these notices be included in the operating records.

Rules require that documents be added to the operating record within seven working days of completion of the item or receipt of analytical data. In addition, §330.113(c) requires the owner or operator to provide written notification annually when adding documents to the operating record. With a few exceptions, §330.113(g) allows the executive director to set an alternate recordkeeping and notification schedule.

Recordkeeping requirements and recommendations are summarized in the table below:

Recordkeeping Requirements and Recommendations

Records Needed	Recordkeeping Required ?	Rule Citation
Location Restriction Demonstrations	Required	§330.113(b)(1)
Prohibited Waste Inspection Records, Training and Receipt Notification Procedures	Required	§330.113(b)(2)
Gas Monitoring Results	Required	§330.113(b)(3)
Remediation Plans for Explosive and Other Gases, if applicable	Required	§330.113(b)(3)
Unit Design Documentation for Leachate or Gas Condensate Placement	Required	§330.113(b)(4)
Groundwater Monitoring and Corrective Action Demonstration, Certification, Monitoring, Testing & Analytical Data, if applicable	Required	§330.113(b)(5)
Closure and Post-Closure Plans	Required	§330.113(b)(6)
Post-Monitoring, Testing and Analytical Data, if applicable	Required	§330.113(b)(6)
Cost Estimates and Financial Assurance Documentation for Closure and Post-closure	Required	§330.113(b)(7)
Small Community Exemption Criteria Compliance Documentation	Required	§330.113(b)(8)

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Facility Operation, Permit Modification, Approvals, and Technical Assistance Correspondence & Responses	Required	§330.113(b)(9)
Special Waste Manifests, Trip Tickets and All Other Documents Relating to Special Waste	Required	§330.113(b)(10)
Other Documents Specified in the Permit or by the executive director	Required	§330.113(b)(11)
Personnel Training Records §335.586(d)-(e)	Required	§330.113(e)
Personnel Operator Licenses	Required	§330.113(f)
Annual Waste Acceptance Rate Documentation including Quarterly and Annual Solid Waste Summary Reports required by §330.603	Required	§330.113(h)
Unauthorized Material Removal	Required	§330.117(b)
Alternate Operating Hours	Required	§330.118(c)
Weekly Landfill Marker Inspections	Required	§330.122
Landfill Gas Management Plan Required Reports and Submittals	Required	§330.130
Cover Inspection Record	Required	§330.133(g)
RACM Acceptance Records, if applicable	Required	§330.136(b)(3)(B)
Access Control Breach and Repair Notices, if applicable	Recommended	
Access Control Inspection and Maintenance	Recommended	
Daily Litter Pickup	Recommended	
Fire Occurrence Notices, if applicable	Recommended	
Windblown Waste and Litter Control Operations	Recommended	
Management and Disposal of Large Items	Recommended	
Documentation of Compliance with Approved Odor Management Plan	Recommended	
Dust Nuisance Control Efforts	Recommended	
Access Roadway Regrading	Recommended	
Salvaged Material Storage Nuisance Control Efforts	Recommended	
Ponding Prevention Plan Compliance Documentation	Recommended	

Special Waste Operational Plan Compliance Documentation	Recommended	
Special Waste Contingency Plan Compliance, if applicable	Recommended	
RACM Contingency Plan Compliance, if applicable	Recommended	
Class I Industrial Waste Contingency Plan, if applicable	Recommended	

Please refer to section 20 of this guide for additional discussion on recordkeeping requirements.

2. Waste Acceptance Rates [§330.113(h) and §330.114(2)]

The waste acceptance rate for a municipal solid waste facility is the same rate that is reported quarterly for billing purposes. The waste acceptance rate forecast should cover a time period that is deemed appropriate by the operator, e.g., a five year period, and forecast assumptions should be made part of the operating record. The annual waste acceptance rate requirement is intended to be used for obtaining the correct balance of on-site equipment, personnel, and other SOP provisions relative to the amount of waste being received.

The new use of waste acceptance rates is not intended to make an estimated waste acceptance rate a limiting parameter of a landfill permit, but is intended to ensure that a facility's operations continue to be adequate when waste acceptance rates increase.

Under new §330.113(h), whenever the annual waste acceptance rate as established by the sum of the previous four quarterly summary reports exceeds the annual waste acceptance rate estimated in the permit application, and the waste increase is not due to a temporary occurrence, the owner or operator must file an application to modify the permit application within 90 days of the exceedance as triggered by the sum of the last four quarterly summary reports. The permit modification application must propose any needed changes in the SOP to manage the increased waste acceptance rate to protect public health and the environment.

Elements of site operation that are related to the waste acceptance rate, such as number of personnel, necessary equipment, compaction, odor control, and related (unloading/screening/ windblown waste/daily cover/etc.) procedures, need to remain current. Since the required method of determining an exceedance is a rolling average based on the sum of the previous four quarterly summary reports, SOPs should include provisions for handling variations due to seasonal rate changes and unforeseen events. Applicants may seek approval of a table or matrix as part of an application reflecting different estimated waste acceptance rates and corresponding SOP provisions. A facility operating under such a table would be allowed to adjust its SOP provisions based on the sum of the previous four quarterly summary reports without having to modify its permit.

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The rule requirement to modify an SOP based on an increased waste acceptance rate does not apply until after a facility has upgraded its permit to comply with the new SOP rules. Therefore, there can be two or more permit modifications required. The first is the required upgrade and then any subsequent permit modifications would be due to increases in waste acceptance rates. Each of these permit modifications are noticed permit modifications.

3. Types of Landfill Personnel [§330.114(1)]

Rules require the SOP to contain a list of the types of key landfill personnel positions used and the chain of command (organizational chart) of the personnel used to operate the landfill. Only the titles of the personnel necessary to operate the landfill need to be included. Listing names of personnel should be avoided in the SOP. Typical personnel titles might include: Facility Manager, Assistant Manager, Landfill Superintendent, Gate Attendant, Equipment Operators, Spotters, and others. This list of personnel could be provided in the order of the chain of command and could be presented in a tabular form. The minimum qualifications for each key position should be listed. The function of each position should be described briefly. An example of typical language for a landfill personnel functional description could be as follows:
"To prevent unloading in un-designated areas, Equipment Operators or other landfill personnel will observe each load that is disposed at the landfill for unauthorized material being unloaded. Landfill personnel will direct incoming vehicles to the proper location to unload waste at the working face."

An example of typical language for a Facility Manager functional description might be:
"The Facility Manager is responsible for overall facility management and is designated as the contact person for regulatory compliance matters. This person is responsible for assuring that adequate personnel and equipment are available to provide facility operation in accordance with the Site Development Plan (SDP), the SOP, and the TCEQ regulations. The Facility Manager is responsible for daily operations, administration of the facility's SDP and serving as the emergency coordinator. The Facility Manager is responsible for maintaining the operating record and required logs."

An example of typical language for a Facility Manager's minimum qualifications might be:

"The minimum qualifications for being the Facility Manager include: "x" years of landfill experience, a Bachelor Degree from an accredited university, and a Class A license as defined in §30.210."

4. Types of Equipment [§330.114(2)]

Rules require the SOP to list and discuss the description, sizes, types, number, and functions of the equipment to be used at the facility. The equipment list could be presented in a tabular form and the number and type of equipment must be tied to the waste acceptance rate. The equipment description and function should be based on performance criteria and not be so specific that

brand names of equipment are specified. Typical types of equipment might include: water truck, motor grader, bulldozer, landfill compactor, self-loading scraper, fuel storage tank, portable water pump. The function of each piece of equipment should be described briefly. A disclaimer could be added such as in the following language:

"In addition to the above list, miscellaneous pickups, vans, and other light utility vehicles as well as various water pumps, instruments, and safety and training equipment will be on-site as necessary for operational efficiency."

A list of equipment may be provided. The list could be specific regarding the equipment size and type. The equipment minimum size should be based on performance criteria. A disclaimer is recommended that expresses the necessity of having a variable in the number, types, and equipment manufacturers based on operational needs.

An example of a list of equipment might be:

Equipment Type	Number (Minimum) Waste Acceptance Rate Range		Minimum Size	Function
	X	Y		
Dozer(s)	1		Various sizes	Waste and soil spreading and compaction
Earth-mover(s)	1		10 to 20 cy	Transportation of daily cover, fire fighting support
Compactor(s)	1		Various sizes	Waste and soil spreading and compaction
Water Truck(s)	1		2,000 gallons	Dust control, fire fighting support
Temporary Litter Fencing	1		150 feet four feet high	Active face litter control
Street Sweeper	1		5 foot broom	Cleaning of paved on-site roads
Portable Litter Screens	8		10 feet by ten feet high	Active face litter control
Road Grader or Maintainer	1		Various sizes	Grading of access roads, soil spreading

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An example of typical language for a functional description of various pieces of equipment might be as follows:

"A compactor will be used for spreading and compacting the refuse and also for compacting the daily cover material. An excavator is used for excavating earth cover material. A hauling truck is typically used for transporting cover material from the excavation area to the working face. An earth-mover is typically used for road maintenance, ditch construction, and final grading of completed fill areas. A water truck is used for wetting earth for dust control and moisture conditioning of soil materials. A maintenance truck is used to provide service to the other site operating vehicles."

The type of equipment to be used in the event of break down or equipment failure must also be listed. The SOP should be tailored relative to the specific facility, where applicable and as necessary to meet the requirements of the rule, and options should be available for maintaining compliance when the facility is faced with periods of equipment breakdown or maintenance. Additional back-up equipment would generally not be required to be addressed for a minor repair to front line equipment.

The maximum waste acceptance range estimated in the SOP establishes the types and amounts of equipment needed to maintain compliance with rules.

The waste acceptance rate range needs to be determined in order to specify types, sizes, and amounts of equipment in such a manner that a change in waste acceptance rate is not likely to adversely affect delivery of solid waste services or customers or potential customers who use the facility.

5. Procedures for Operating Personnel for Compliance with the Rules [§330.114(3)]

Each aspect of the contents of the SOP are considered to fulfill the requirement of the TCEQ rule dealing with this subject.

SOPs are meant to be general instructions that the operating personnel follow for operational requirements. The SOP is not intended to be a comprehensive operating manual for all aspects of a municipal solid waste facility.

Please keep in mind that the SOP can also be a budgeting tool for the owner or operator.

6. Personnel Training [§330.114(4)]

This section of the SOP should address the recommended training for each of the key site personnel. The SOP must specify a means for key facility personnel to have successfully completed a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with rule requirements. The educational program must be directed by a person trained in waste management procedures, and

must include instruction that teaches facility personnel waste management procedures and contingency plan implementation relevant to the positions in which they are employed. The training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where procedures for using, inspecting, repairing, and replacing facility emergency equipment; communications or alarm systems; response to fires or explosions; response to groundwater contamination incidents; and shutdown of operations.

A means must be specified in the SOP for key facility personnel to take part in an annual review of their initial training as required by §335.586(c). Introductory and continuing training must be documented in the site operating record.

Section 335.586(d)(3) requires a written description of the type and amount of both introductory and continuing training given to each key person. Documentation of the training must be maintained in the facility records.

Site personnel (provide a list) should receive training in applicable rules, safety procedures, contingency plans, and permit requirements relevant to the positions in which they are employed. An example of typical language for the training might be:

"Training and safety meetings shall be scheduled at least once per month. If a regular monthly meeting is cancelled, it shall be rescheduled or combined with the scheduled training the next month. Training sessions shall be scheduled to allow site operations to be uninterrupted. Records of personnel attending each training session and the topics covered will be maintained at the site. Topics for training may vary each month but must be conducted at least annually for: (1) fire protection, prevention, and evacuation, (2) fire extinguisher use, (3) asbestos waste management, (4) emergency response, (5) litter control and windblown waste pick-up, (6) hazardous waste and PCB waste detection and control, (7) prohibited waste management, (8) properties of methane gas and safety procedures for methane gas, and (9) other. Staff conducting random inspections will receive training on the random inspection procedures in this plan and instructions on the recognition of hazardous waste and PCB waste."

Reference is made to the rule on this subject in §330.114(4), which states:

> ...identification of applicable training requirements under §335.586(a) and (c) of this title (relating to Personnel Training) which shall be followed.

Section 335.586(a) then states:

> (a) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this subchapter. The owner or operator must ensure that this program includes all the elements described in the document required under subsection (d)(3) of this section. (1) This program must be directed by a person trained in waste management procedures, and must include instruction that teaches facility personnel waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed. (2) At a

minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable: (A) procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment; (B) communications or alarm systems; (C) response to fires or explosions; (D) response to ground-water contamination incidents; and (E) shutdown of operations.

Section 335.586(c) states:

> Facility personnel must take part in an annual review of the initial training required in subsection (a) of this section.

Section 335.586(d)(3) states:

> ...a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (1) of this subsection.

7. Detection and Prevention of Disposal of Prohibited Waste, Hazardous Waste, and PCBs [§330.114(5)]

In accordance with EPA's RCRA Subtitle D criteria, 40 CFR 258.20, and TAC §330.114(5), landfills must have a program to exclude prohibited waste, regulated hazardous waste, and PCB waste, as defined in 40 CFR 261 and 30 TAC §330.2 and §330.5.

Prohibited waste includes lead acid storage battery, used motor vehicle oil, used-oil filters from internal combustion engines, whole used or scrap tires, items containing chlorinated fluorocarbon (CFC) unless all the CFC contained within them is properly managed, liquid waste as defined, regulated hazardous waste as defined, and polychlorinated biphenyl (PCB) waste, as defined.

The SOP must describe ways to prevent the disposal of prohibited waste, hazardous waste and polychlorinated biphenyls (PCB). Procedures for the detection of these wastes must be included. An example of typical language for the control of prohibited waste might be:

"Incoming waste is controlled in three ways to preclude the inadvertent receipt of prohibited wastes. One level of control is to inform customers of the types of waste that are to be excluded. A second control is to inform all vehicle drivers and transfer station operators of the restrictions. Key personnel will be informed of the typical visible characteristics of these materials. A third control is provided by the Facility Manager, Gate Attendant, and Equipment Operators. Random inspections will be made daily of a certain percent of collection vehicles by the landfill site personnel. (The percentage must be specified in the SOP.) At least one vehicle per day shall be randomly inspected. The Equipment Operators or other trained staff will observe collection vehicles as they unload."

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A program to prevent the disposal of prohibited waste, hazardous waste, and PCB waste must include training site personnel to know in detail the regulated wastes, how to perform a random inspection, how to control site access, the training to provide for site personnel, and procedures required in the event of identification of regulated wastes. The detection and exclusion program must include at least the following steps:

- Random inspections of incoming loads each day of operation.
- Records of all inspections.
- Training for facility personnel to recognize regulated prohibited waste, hazardous waste, and PCB waste.
- Notification to the TCEQ of any incident involving the disposal of regulated hazardous waste or PCB waste at the landfill.
- Provisions for remediation of the incident.

Some example language for a random load inspection procedure is as follows:

"For random inspections, trained staff should visually inspect incoming loads. If any indication of prohibited waste is detected, appropriate landfill personnel should conduct a thorough evaluation of the load. Characteristics to be first observed might be unusual odors, heat, fumes, large containers, unusual dust, liquids or sludge. The driver should be directed to a load inspection area located near the working face over an approved lined area, where the load should be discharged from the vehicle. The inspector will break up the waste pile and inspect the material for any hazardous or prohibited waste. Suspicious wastes should be flagged and samples may be taken for laboratory analysis. Known prohibited waste should be placed back into the vehicle and the driver should be instructed to depart the site with information on where to legally dispose of the waste. If any regulated hazardous waste is detected, the entire load should be refused. In addition to the above procedure, incoming loads should be inspected on a random basis. [The SOP should specify the random inspection schedule.] The driver of the randomly selected load should be notified at the gatehouse and instructed to proceed as above. The load inspectors should wear personal protective equipment."

With respect to records of inspections, some typical language might include the following:

"The facility manager is required to maintain and include in the site operating record the following: (1) load inspection reports, (2) records of regulated hazardous or PCB waste notifications, (3) personnel training records, and (4) load inspection reports, recorded on standardized forms, completed for each inspected load. The reports should include the date and time of inspection, the name and address of the hauling company and driver, the type of vehicle, the size and source of the load, contents of the load, indicators of prohibited waste, and results of the inspection."

A typical load inspection report form could be included in the SOP.

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The TCEQ should be notified whenever regulated hazardous waste or PCB waste is detected. Records of the notification and management of the waste should be kept in the site operating record and should include the date and time of notification, the individual contacted, and the information reported.

With respect to training for appropriate facility personnel responsible for inspecting loads to recognize regulated hazardous waste or PCB waste, the following is some typical language that could be provided:

"In-house training should address the following topics: (1) customer notification and load inspection procedures, (2) identification of hazardous wastes, PCB wastes, and other prohibited wastes, (3) load inspection reports, recorded on standardized forms, completed for each inspection, and (4) personnel training records should be maintained in the site operating records and should include evidence of successful completion of the training, type of training received, and the name of the instructor. Load inspectors, the facility manager, equipment operators, and gate attendants should maintain a thorough understanding of the SOP and should be trained in the following areas: (1) customer notification and load inspection procedures, (2) identification of regulated hazardous, PCB, and prohibited waste, (3) waste handling procedures, (4) health and safety, and (5) record keeping. These personnel should have knowledge of barrel types, possible types of liquids, transporter numbers on trucks, and company names on trucks that could be industrial or hazardous waste generators or generators of other unauthorized waste. Documentation of training should be placed in the landfill operating record. The minimum level of training for the facility manager should be a Class A license as defined in §330.388(a)(3). In addition, key on-site personnel should attend the Institute for Infrastructure in Environmental Development training course for Screening for Unauthorized Waste or other TCEQ approved course."

The SOP should address the management of prohibited wastes if the wastes are identified. Some typical language for this might be as follows:

"Appropriate personnel and equipment will be employed to control prohibited waste. Qualified personnel will be contacted to aid the facility manager if applicable. Unknown wastes undergoing analysis must be properly segregated and protected against the elements, secured against unauthorized removal, and isolated from other waste and activities. If needed, the waste will be containerized, or covered with tarp material until the appropriate method can be determined to properly manage the waste. Known prohibited wastes detected during an inspection will be returned immediately to the hauler or waste generator. If the hauler or generator is not available, the waste will be safely stored until provisions for removal can be arranged. If regulated hazardous or PCB wastes are detected, the TCEQ will be notified. As soon as is practical, the hauler or generator will be required to remove the hazardous waste from the site. The TCEQ will be notified whenever regulated hazardous or PCB waste is detected. Records of the notification will be kept in the site operating record and will include the date and time of notification, the individual contacted, and the information reported."

Reference is made to this subject in §330.114(5), which states:

> ...procedures for the detection and prevention of the disposal of prohibited wastes, including regulated hazardous waste as defined in 40 Code of Federal Regulations (CFR) Part 261, and of polychlorinated biphenyls (PCB) wastes as defined in accordance with 40 CFR Part 761 unless authorized by the United States Environmental Protection Agency. The detection and prevention program must include the following:
>
> (A) procedures to be used by the owner or operator to control the receipt of prohibited waste. The procedures must include the random inspections of incoming loads and must include the inspection of compactor vehicles. In addition to the random inspections, trained staff shall observe each load that is disposed at the landfill;
>
> (B) records of all inspections;
>
> (C) training for appropriate facility personnel responsible for inspecting or observing loads to recognize prohibited waste;
>
> (D) notification to the executive director of any incident involving the receipt or disposal of regulated hazardous waste or PCB waste at the landfill;
>
> (E) provisions for the remediation of the incident; ...

8. *Fire Protection Plan (§330.115)*

The SOP must address fire protection procedures in place at the facility. The procedures should show coordination with the local fire department (if one exists locally), areas of the facility where combustibles are stored or processed, fire suppression tools for areas of combustible materials, and maintenance of fire suppression equipment. It is recommended that the facility's fire protection plan include coordination with local fire authorities as appropriate. The site fire protection plan must explain how fires will be managed on site. There are several categories of fires and each may have a different way of being managed. Sufficient on-site equipment must be available to cover waste with six inches of earthen material within one hour of detection of a fire. Rules require the owner or operator to maintain a source of earthen material in such a manner that it is available at all times to extinguish any fires.

The following is an example of the typical contents of an SOP regarding fire protection:

"Open burning is prohibited at the landfill site except on an infrequent basis of specific wastes as may be authorized by the TCEQ. A specified amount of stockpiled earth should be maintained. The stockpile volume should be adequate to cover any waste not already covered with six inches of earthen cover. (This minimum volume of stockpiled earth should be described and supported by calculations demonstrating the adequacy of the stockpile to meet the rule requirements.) The facility should maintain sufficient equipment at all times for moving earth from a stockpile to any solid waste area having a fire. Sufficient on-site equipment must be provided to place a six-

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inch layer of earthen material to cover any waste not already covered with six inches of earthen material within one hour of detecting a fire. All equipment should have fire extinguishers. Fire extinguishers should be fully charged and ready for use at all times. "

A procedure should be described to contact the local fire department or volunteer fire department. Instructions should be included in the plan for orientation of personnel from local fire stations that are most likely to respond in case of a fire. The orientation of personnel from local fire stations should include familiarization with the on-site road network and location of any fire hydrants and any firefighting water ponds.

Incoming loads that are smoking or steaming should be identified and prevented from being disposed of at the working face. The Gate Attendant and Equipment Operators should be alert to smoke or steam being released from incoming loads.

Smoking should not be allowed on the active areas of the landfill. A no smoking rule should be enforced by the facility manager. Smoking should be confined to specific areas that are away from the active working area, re-fueling areas, and other specified fire-sensitive areas.

Fuel spills should be controlled immediately.

Controls of on-site trees, brush and vegetation should be specified to prevent brush fires from spreading to the landfill or off of the landfill. In the event of a fire within a vehicle or piece of equipment, the first step is to bring the vehicle or equipment to a safe stop away from fuel areas and exposed solid waste.

General procedures for fire prevention should be described in the SOP. Here is some example language:

"Fire fighting methods for burning solid waste include smothering with soil, separating burning material from other waste, spraying with water from an on-site water truck, or spraying with water from an on-site detention pond. Small fires might be controlled with hand-held extinguishers. If the fire is at an active disposal area, if possible, the burning waste should be isolated or pushed away immediately before the fire can spread, or firebreaks should be cut around the fire before it can spread. If moving the waste is not possible, or if it is unsafe, efforts should be made to cover the working face with earth immediately to smother the fire. The faster that soil can be placed over the fire, the more effective this method will be in controlling and extinguishing the fire. The stockpiled daily earthen cover material may be used for firefighting purposes."

A description should be included regarding the type of equipment that will be used to move burning waste, and a description should be included regarding the type of equipment that will be used to move earth from the required stockpile.

General procedures for fire prevention should be described in the SOP. Here is some example language:

"The following steps will be taken by designated landfill personnel to prevent fires:
Burning waste will be prevented from being dumped in the active area of the landfill. The gate attendant and equipment operators will be alert for signs of burning waste such as smoke, steam, or heat being released from incoming waste loads. Fuel spills will be contained and cleaned up immediately. Landfill equipment will not remain in the active area of the site overnight. Dead trees, brush, or vegetation adjacent to the landfill will be removed immediately, and grass and weeds will be mowed so that forest, grass, or brush fires cannot spread to the landfill. Smoking is not allowed on the active areas of the landfill or near flammable materials."

General procedures for site operating personnel to follow in the event of a fire should be described in the SOP. Here is some example language that might be used:
"If a fire occurs on a vehicle or piece of equipment, the equipment operator should bring the vehicle or equipment to a safe stop. If safety of personnel will allow, the vehicle must be parked away from fuel supplies, uncovered solid wastes, and other vehicles. The engine should be shut off and the brake engaged to prevent movement of the vehicle or piece of equipment. If a fire is in the working face, the burning area should be isolated and pushed away from the working face quickly, or firebreaks should be cut around the fire before it can spread. If this is not possible or unsafe, efforts to cover the working face with earth must be initiated immediately to smother the fire."

Additional example language might be:

"Firefighting methods include smothering with soil, separating burning material from other waste, and spraying with water from the water truck or water pumped from nearby ponds or streams. If detected soon enough, a small fire may be fought with a hand-held fire extinguisher. A fire extinguisher will be located at the gatehouse and on each piece of equipment. Under this circumstance, the fire area should be watered or otherwise controlled to ensure that the fire is out."

A general procedure for fighting fires should be specified. Example language might be as follows:

"The following rules should be implemented in the event of a fire:
Contact the Local Fire Department by calling 911. Alert other facility personnel. Assess extent of fire, possibilities for the fire to spread, and alternatives for extinguishing the fire. If it appears that the fire can be safely fought with available fire fighting devices until arrival of the Local Fire Department, attempt to contain or extinguish the fire. Upon arrival of Local Fire Department personnel, direct them to the fire and provide assistance as appropriate. Do not attempt to fight the fire alone. Do not attempt to fight the fire without adequate personal protective equipment. Be familiar with the use and limitations of firefighting equipment available onsite."

The site should be equipped with fire extinguishers of a type, size, location, and number as recommended by the local fire department. Each fire extinguisher should be fully charged and ready for use at all times. Each extinguisher should be inspected on an annual basis and recharged as necessary. A qualified service company should perform these inspections, and all extinguishers will display a current inspection tag. Inspection and recharging should be

performed following each use. The gatehouse, all landfill equipment, and landfill vehicles should be equipped with fire extinguishers.

Training of on-site personnel in firefighting techniques, fire prevention, response, and the fire protection aspects of the SOP should be provided by established professionals on an annual basis. Personnel should be familiar with the use and limitations of firefighting equipment available onsite. Records of this training should be included in the operating record for the facility.

After any fire (related to waste management activities that cannot be extinguished within 10 minutes of discovery) occurs, a permit holder is required to contact the TCEQ's regional office. The notification to the regional office includes:

1. Contact by telephone as soon as possible, but no later than 4 hours following fire discovery, and
2. Provide a written description of the cause and extent of the fire and the resulting fire response within 14 days of fire detection.

Since landfill fires frequently cause concern on the part of nearby landowners, who turn to the commission's regional offices for information, you are encouraged to provide as much information regarding the fire and fire fighting efforts as soon as possible after the fire occurs.

The agency also recommends that the fire prevention and fire control procedures for the facility be revisited following the occurrence of a significant fire to determine if modifications are warranted.

Please refer to rules in §§330.5(d) and 330.125 for information pertaining to the prohibition of open burning and fire protection plans.

9. Access Control (§330.116)

All municipal solid waste management facilities must control access. Adequate access control is an important feature for safety purposes and for prevention of unauthorized waste disposal. The control of public access will minimize unauthorized vehicular traffic, unauthorized and illegal dumping, and public exposure to hazards associated with landfills. The preferred method of landfill access control is fences and gates. The types, sizes, and performance specifications of fences should be described in the SOP, if not specified in the site design. If natural barriers are used, a discussion should be included to describe the way public access will be controlled by the natural barrier. Natural barriers that may be used include dense foliage, trees, rivers, and tributaries.

Language in §330.116 requires SOPs to include provisions for notice of an access breach to the commission's regional office, provisions for temporary and permanent repairs, and notice when a permanent repair is completed for any breach that cannot be permanently repaired within eight hours of discovery. It is recommended that a copy of these notices be retained in the operating record in accordance with §330.113(b)(9). The rules do not require records to be generated or

retained to document when access inspections are conducted; however, it is recommended that a log of access inspections be maintained for the purpose of demonstrating compliance with access inspection requirements. Notice and repair should be made according to the following schedule:

Requirements	**Access Breach** Repaired within 8 hours	**Access Breach** Not permanently repaired in 8 hours
Notify region office of breach and repair schedule	not required	within 24 hours
Make temporary repairs	not required	within 24 hours
Make permanent repairs	within 8 hours	within schedule submitted to regional office in initial notice
Notify regional office when permanent repair completed	not required	within schedule submitted to regional office in initial notice

10. Unloading of Waste (§330.117)

The unloading of solid waste must be confined to as small an area as practical. The SOP must specify the maximum size of the unloading areas. Trained staff must be available to monitor each load that is disposed at the facility. Section 330.117 gives the facility staff the authority and responsibility to reject unauthorized loads, have unauthorized material removed by the transporter, assess appropriate surcharges, and have the unauthorized material removed by on-site personnel. This section of the rules applies to all facilities. A record of unauthorized material removal is required to be maintained in the operating record. Type IV facilities are required to have a sign explaining the wastes that are not allowed and stating the landfill's requirements for transporters, such as certificates, manifests, and surcharges or other penalties that may be imposed for the receipt of putrescible and household wastes.

The size of the unloading area and the number and types of working faces need to be controlled to reduce odors, to reduce blowing waste, and to control vector populations.

The person monitoring incoming loads of waste material must be a trained staff person and must observe each load. The person responsible for observing each load can be a person already on staff such as an equipment operator.

The phrase "otherwise properly managed by the landfill" in the rule is meant to recognize that some temporary storage may be appropriate before the waste is transported off site.

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A means of enforcing the unloading requirements through surcharges is given to the landfill by rule language.

Typical contents of an SOP should normally contain some of the following example language:

"Gate attendants and equipment operators will monitor the incoming waste. These personnel will be familiar with the rules and regulations governing the various types of waste that can or cannot be accepted into the facility, including knowledge of §330.136. The personnel will also have a basic understanding of both industrial and hazardous waste and their transportation and disposal requirements. Unloading of waste in unauthorized areas is prohibited. Solid waste unloading will be controlled to prevent disposal in locations other than those specified by site management. Random load inspections should be conducted. Any waste deposited in an unauthorized area will be promptly removed and disposed of properly at the appropriate working face. Control will also be used to confine the working face to a minimum width consistent with the rate of incoming waste, while allowing for safe and efficient operation. Normally, only one working face should be active on any given day. Prohibited waste that is not discovered until after it is unloaded shall be returned to the vehicle that delivered the waste. The driver shall be advised where the waste may be disposed of legally and he or she shall be responsible for the proper disposal of this rejected waste. In the event the unauthorized waste is not discovered until after the vehicle that delivered it is gone, the waste shall be segregated and controlled as necessary. An effort shall first be made to identify the entity that deposited the prohibited waste and have them return to the site and properly dispose of the waste. In the event that identification is not possible, the facility manager will notify the TCEQ and seek guidance on how to dispose of the waste as soon as practical. Signs with directional arrows and portable traffic barricades will help to restrict traffic to designated disposal locations. Signs will be placed along the access route to the current disposal area or other designated disposal areas that may be established. In addition, rules for waste disposal and prohibited waste will be prominently displayed on signs at the site entrance."

Type IV facilities are required to have a sign explaining the wastes that are not allowed and stating the landfill's requirements for transporters, such as certificates, manifests, and surcharges or other penalties that may be imposed for the receipt of putrescible and household wastes. Section 330.117(e)-(h) requires that these facilities include procedures for control of containers of putrescible wastes, for the means of removal of putrescible wastes and other prohibited wastes, and for retaining transporter certificates on site. The rule also prohibits the acceptance of enclosed waste or enclosed vehicles, with certain exceptions.

11. Facility Operating Hours (§330.118)

Section 330.118 requires that the hours must be specified when a facility may be open to accept waste, the operating hours when materials may be transported on or off site, and the hours when heavy equipment may operate. These activities are being regulated because of their potential to impact the public. "Waste acceptance hours" means the time when a facility may be open to accept waste regardless of the source. Waste may not be accepted at the gatehouse before or after

these hours. The rule regulates when other specified activities may be conducted. If some of those activities are currently being conducted outside of a facility's authorized "hours of operation," the facility must conform to the limits on operating hours or request to modify its permit under §330.111(b) to include the operating hours for those activities. The standard hours of operation are 7:00 a.m. to 7:00 p.m., Monday through Friday, unless otherwise approved in the authorization for the facility. The actual operating hours should be posted on the site sign. Operating hours for weekends and holidays should be specified in the SOP. A provision in the rules exists that allows the approval of alternate operating and/or waste acceptance hours for up to five days in a one-year period to accommodate special occasions, special purpose events, holidays, or other special occurrences as specified in §305.70. Another rule provision allows the commission's regional offices to approve additional temporary waste acceptance and operating hours to address disaster or other emergency situations or other unforeseen circumstances that could result in the disruption of waste receipt at the facility. The facility must record in the site operating record when alternate or additional waste acceptance or operating hours are used.

The operating hours currently specified in a permit are interpreted to mean waste acceptance hours. The presumed waste acceptance hours by rule are 7 a.m. to 7 p.m., Monday thru Friday, unless otherwise specified in the facility permit. If an existing facility currently has operating hours approved in its permit that are outside those listed in the rule, then the approved operating hours will be authorized as waste acceptance hours when the facility updates their SOP. If a facility wishes to change the waste acceptance hours authorized in a facility's current permit, then it will have to submit a request for either a notice modification or major amendment depending on circumstances.

Facility operating hours may not be conducted within the hours of 9:00 p.m. to 5:00a.m. unless otherwise authorized in the facility permit. If a facility can demonstrate operating hours outside the hours presumed by rule during the SOP call-in period, those hours may be granted. If a facility wants to operate outside the standard operating hours and cannot adequately demonstrate historic, continuous operations beyond the standard hours expressed in the rules (outside the hours currently authorized in the facility permit), it must submit a request for either a notice modification or major amendment, depending on circumstances, to its site operating plan.

12. Site Sign (§330.119)

A sign is required to be displayed at the entrance to the facility. This sign will measure at least four feet by four feet, and have lettering of at least 3 inches in height that states the name of the site, type of site, hours and days of operation, and the TCEQ permit number. The sign must have an emergency 24-hour contact phone number or numbers that reach a key landfill staff person with the authority to obligate the facility at all times that the facility is closed. The sign must also have the local emergency fire department phone number, and the permit number or facility number. The facility sign must be readable from the facility entrance. A sign prohibiting receipt of hazardous waste, closed drums, and smoking should be posted near the facility entrance or gatehouse. A sign must be prominently displayed at the facility entrance stating that all loads

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shall be properly covered or otherwise secured. Please refer to section 16 of this guide for more discussion about site signs and properly covered loads.

13. Control of Windblown Solid Waste and Litter (§330.120)

The working face of a landfill must be maintained and operated in a manner to control windblown solid waste. This includes controlling the size of the unloading area and the number and types of working faces. Please see section 10 of this guide for further discussion on unloading areas. The SOP is required to include the use of engineering methods or engineering measures, including portable panels, temporary fencing, and perimeter fencing, or comparable engineering controls to control windblown waste. The SOP must specify the means for confining windblown waste and litter. Pickup of litter scattered throughout the site, along fences, access roads, and at the gate due to wind or as a result of waste falling from vehicles is required at least once a day on days that the facility is in operation. Litter pickup should continue on access roads for a distance of two miles from any facility entrance used by waste delivery vehicles. The SOP must include a description of the means for complying with the litter pickup requirements. Although the rule does not specifically require that records documenting litter pick up efforts must be included in the site operating records, it is recommended that records be maintained to demonstrate compliance with this portion of the rule. Please see section 10 of this guide for further discussion on litter control for site access roads.

Some suggested methods for controlling windblown wastes and litter are as follows:

- Waste transportation vehicles using the facility should be required to use adequate covers or other means of containment. The adequacy of covers or containment of incoming wastes must be checked at the facility entrance. A sign must be prominently displayed at the facility entrance stating that all loads shall be properly covered or otherwise secured. Please see section 16 of this guide for further discussion on securing loads for litter control.

- Daily cover should be applied to Type I landfills as frequently as needed to assist with the control of windblown waste. Please see section 26 of this guide for further discussion on the use of daily cover for windblown waste control.

- The facility should reduce the working face size as much as practical during windy days to reduce blowing paper.

- The facility should provide portable litter control fences, as necessary, at appropriate locations near the working face and elsewhere. The litter control fences may be constructed of wire mesh screens attached to portable frames or other appropriate anchor methods. The litter control fences should be of sufficient height to control windblown waste and litter. The litter control fence should be located as close as practical to the active area to control windblown waste and litter. Such equipment use must be included in the SOP.

- Facility personnel must collect windblown waste materials that may have accumulated throughout the site, on fences and gates, and onsite access roads on days that the facility is in operation. Please see section 20 of this guide for further discussion on litter control along the site access roadway. A log of such activities is recommended, although not required, please see section 1 of this guide for a discussion on recordkeeping.

- Earth berms may be used to assist in control of windblown wastes by providing a windbreak against prevailing winds as necessary. Due to the variability of wind direction, the site operator should use his discretion to use additional windbreaks.

14. Easements and Buffer Zones (§330.121)

For easements, a discussion should be included in the SOP for each actual utility line or pipeline easement within the site permit boundaries. The types of easements and their locations and dimensions should be discussed. No solid waste unloading, storage, disposal, or processing operations should occur within any easement. All easements shall be clearly marked as specified in Section 15 of this guideline.

For buffer zones, the typical contents of an SOP should normally contain some of the following example language:

"The buffer zone for the fill area is generally located between the permit boundary and the waste footprint. No solid waste unloading, storage, disposal, or processing operations should occur within any easement, buffer zone or right-of-way that crosses the site. The buffer zones may vary around the perimeter of the site, but in no case should they be less than 50 feet. All buffer zones, as depicted in the site design, shall be clearly marked as specified by TCEQ rules."

15. Landfill Markers and Benchmark (§330.122)

A discussion of how landfill markers and the benchmark are installed and maintained must be included in the SOP.

Landfill markers must be installed to clearly mark significant features as described in §330.55(b)(10) and 330.143(b). The markers should be steel or wooden posts (or other TCEQ-approved material) and should extend at least 6 feet above the ground surface. The markers should not be obscured by vegetation and should be placed in sufficient numbers to clearly show the required boundaries. Markers that are removed or destroyed must be replaced within 15 days of their removal or destruction. Landfill markers should be inspected on a monthly basis and should be maintained and repaired on a scheduled basis (the schedule should be included in the SOP). Markers must be repainted, repaired, or replaced to maintain visibility within 15 days.

Guidelines for type, placement, and color coding of markers should be provided. An example chart for this could be as follows:

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The required landfill markers are:

Marker	Color
Site Boundary	Black
Buffer Zone	Yellow
Easements	Green
Grid System	White
SL/ER	Red
Floodplain	Blue

Example language pertinent to a permanent benchmark is as follows: "A permanent benchmark has been established at the site as shown Attachment 1 of the Site Development Plan. It is located in an area that is readily accessible and will not be used for disposal. The benchmark is a bronze survey marker stamped with elevation and survey date and is set in concrete."

16. Materials Along the Route to the Site (§330.123)

The facility manager must take steps to encourage that vehicles hauling waste to the site are enclosed or provided with a tarpaulin, net, or other means to properly secure the load. These steps are necessary to prevent the escape of any part of the load by blowing or spilling. This should include posting signs, adding surcharges to offset costs of additional litter pickup responsibilities, reporting to local authorities, or other measures specified in the SOP. The facility manager is responsible for the cleanup of waste materials spilled along and within the right-of-way of all public access roads serving the site for a distance of 2 miles in either direction from any entrance to the site. Cleanup for the spilled materials must be performed once per day while the landfill is in operation and more often if the landfill facility manager deems necessary.

The facility manager should consult with the Texas Department of Transportation, county, and/or local governments with maintenance authority over the roads concerning cleanup of public access roads and right-of-ways consistent with rules in 30 TAC §330.123. Signs shall be posted at the facility entrance indicating that all loads should be covered.

Reference is made to this subject in §330.123 entitled "Materials Along the Route to the Site," as follows:

> The facility owner or operator shall take steps to encourage that vehicles hauling waste to the facility are enclosed or provided with a tarpaulin, net, or other means to effectively secure the load in order to prevent the escape of any part of the load by blowing or spilling. The owner or operator shall take actions such as posting signs, reporting offenders to proper law enforcement officers, adding surcharges, or similar measures. On days when the facility is in operation, the owner or operator shall be responsible for at least once per day cleanup of waste materials spilled along and within the right-of-way of public access roads serving the

facility for a distance of two miles in either direction from any entrances used for the delivery of waste to the facility. The facility operator shall consult with the Texas Department of Transportation, county, and/or local governments with maintenance authority over the roads concerning cleanup of public access roads and right-of-ways. An alternate clean-up frequency and distance may be approved in the site operating plan.

17. Disposal of Large Items (§330.124)

A collection area for large items and white goods such as ovens, dishwashers, and refrigerators, should be provided within the permit boundary. These items should be recycled as demand warrants and to prevent the development of nuisance conditions or discharge of pollutants. For landfills, large items that are not recycled should be disposed of at the working face of the landfill. Refrigerators, freezers, air conditioners, and any other items containing chlorinated fluorocarbon (CFC) must be handled in accordance with 40 Code of Federal Regulations §82.156(f), as amended. Refrigerators, freezers, air conditioning units, or other items containing CFC refrigerant should not be accepted unless the CFC contained in the item has been captured and sent to an approved CFC disposal site or recycling facility. The generator or transporter must provide written certification that the CFC has been evacuated from the unit prior to acceptance or disposal. Items such as electrical equipment, which contain PCBs should be excluded from waste fill.

Care should be taken during disposal of large items to ensure that:

- large items are excluded from the initial 5 feet of waste placed over the protective cover of a liner,
- large items are placed such that they do not interfere with continued waste filling, and
- that other, smaller municipal solid waste is placed and compacted around them.

18. Air Criteria (§330.125)

Municipal solid waste facilities are subject to commission rules concerning burning and air pollution control. The owner or operator shall ensure that any unit of the municipal solid waste facility does not violate any applicable requirement of the approved state implementation plan developed under the Federal Clean Air Act, §110, as amended, and §330.5(d) of this title (relating to General Prohibitions), which prohibits the open burning of waste at any municipal solid waste landfill facility unless specifically authorized. The owner or operator must ensure that the facility does not violate any applicable requirement of the SIP. This includes nuisance odors, outdoor burning, visible emissions, and particulate matter control requirements. Please see section 8 of this guide about burning and section 20 of this guide about dust on roadways.

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An SOP must contain an odor management plan that addresses the sources of odors and includes general instructions to control odors and sources of odors. The odor management for a Type I landfill should include means to control odor from leachate. Odor management plans need to be site-specific and waste-specific. Plans for odor management must include the identification of wastes that require special attention such as septage, grease trap waste, and dead animals. Means of handling these materials on a timely basis should be part of the plan. One way of handling a particularly odorous waste at a landfill would be to bury it immediately upon receipt with prompt compaction and cover of incoming waste at the working face and application of daily cover. A suggested means of odor control might be for the gatehouse attendant to identify loads with significant odors and provide sufficient notice to the working face personnel to allow the waste's prompt disposal at the working face and immediate cover with other waste or earthen material to minimize odor. Another means of odor control might be the application of cover that is thicker than six inches if necessary. The size of the unloading area should be kept as small as possible which will minimize odors.

Other measures to control odor may include, but are not limited to, the following items:

- Removal and disposal of odorous items from the recycling area.
- Control of any ponded water at the site to avoid its becoming an odor nuisance.
- Incoming waste should be promptly landfilled.
- Removal of leachate should be done under appropriate weather conditions.
- Regular inspection and repair of the gasket, cap and leachate riser backfill material.
- Use of vapor-tight gaskets on all leachate sumps.
- Adding leachate collection systems to the gas management system.
- In the event objectionable odors occur, appropriate measures should be available to alleviate the condition.
- Identify known sources of odorous wastes and specify a time of day for these wastes to be received so that they can be given special attention.
- If odors are a result of improper use of alternate daily cover material, the cover material will need to be re-evaluated.
- Spills of odorous material should be promptly managed.
- Damage or erosion of daily, alternate or final cover should be promptly repaired.

The facility manager must ensure that the municipal solid waste facility does not violate any applicable air quality requirement in Attachment 14 of the Site Development Plan.

19. Disease Vector Control (§330.126)

The need for control of vectors such as rodents, flies, and mosquitoes at landfills will be minimized through daily site operations, which include the application of daily, intermediate, and final cover. Minimizing the extent of the working face also is a control of vectors.

The general methods and performance-based frequencies for disease vector control must be specified in the SOP. If necessary, a licensed professional should apply pesticides for control of vectors to ensure that proper chemicals are used and that they are properly applied.

20. Site Access Roads (§330.127)

The following aspects about site access roads must be discussed in the SOP:

- Tracked mud and associated debris at the entrance to the facility and on the public roadway at the entrance to the facility and trash on public roadways must be removed at least once per day on days when mud and associated debris are being tracked onto the public roadway to the extent that mud can be reasonably considered to be associated with landfill operations.
- The methods for controlling and minimizing mud and associated debris tracked onto public roadways must be specified in the site operating plan. Rules do not specifically require recordkeeping for this issue, but it is recommended that records be kept to demonstrate compliance with the requirement.
- Dust from on-site and other access roadways must not become a nuisance to surrounding areas. A water source and necessary equipment or other means of dust control approved by the TCEQ executive director must be provided.
- Litter and any other debris on-site and other access roadways must be picked up at least daily and taken to the disposal area.
- Access roadways must be regraded to minimize depressions, ruts, and potholes. The frequency of regrading must be specified in the SOP.

For all-weather roads within the site to the unloading area designated for wet-weather operation, the landfill haul roads and access roads must be constructed with appropriate materials to provide all weather access. A paved site entrance road is recommended.

For tracking of mud and trash onto public roadways, the paved entrance road and crushed-stone (or similar material) internal roads should provide mud control for the waste hauling vehicles prior to exiting the site and returning to public access roads. Street sweeper type equipment could be used to remove mud accumulations on roads.

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For dust from on-site and other access roadways, the landfill haul roads and access roads should be maintained in a reasonable dust-free condition by periodic spraying from a water truck.

For maintenance of on-site and other access roadways, in addition to stockpiles of crushed stone, the operator may wish to stockpile concrete rubble, masonry, demolition debris, or other similar material used in maintaining passable access roads. Grading equipment could be used as necessary to control or remove mud accumulations on roads. A roadway regrading and maintenance schedule should be included in the SOP. The schedule for road regrading and maintenance should be performance-based and contingent on road conditions. Rules do not specifically require recordkeeping for this issue, but it is recommended that records be kept to demonstrate compliance with the requirement. Please see section 18 above for additional discussion on site access roads and dust control measures.

21. Salvaging and Scavenging (§330.128)

Salvaging shall not be allowed to interfere with prompt sanitary disposal of solid waste or to create public health nuisances. Salvaged materials should be considered as potential recyclable materials and may be stored in a designated collection area. Salvaged items should be recycled often enough to prevent an excessive accumulation of the material at the site to prevent odor or other nuisance conditions from developing and to eliminate the risk of discharge of pollutants. Scavenging must be prohibited at all times. Pesticide, fungicide, rodenticide, and herbicide containers must not be salvaged unless they are salvaged through a state-supported recycling program. Salvaging of special waste must be prohibited. Salvaging of wastes must not occur where waste has been covered with daily cover.

22. Endangered Species Protection (§330.129)

If endangered or threatened species are known to be found on the site or the site provides critical habitat to an endangered or threatened species, a thorough discussion of protection measures should be provided.

If no endangered species are known to be on site, the typical contents of an SOP should indicate that no endangered or threatened species have been documented at the site nor has a critical habitat for such species been identified at the site. Additionally, the typical contents of an SOP should indicate that neither the facility nor its operation will result in the destruction or adverse modification of the critical habitat of endangered or threatened species, or cause the taking of any endangered or threatened species.

23. Landfill Gas Control (§330.130)

The control and monitoring of landfill gas shall be in accordance with Attachment 14 of the Site Development Plan. The landfill gas management plan should be developed in accordance with §330.56. The gas management plan should provide for inclusion of applicable documentation in the site operating record and for submittal to the executive director of the TCEQ.

24. Oil, Gas, and Water Wells. (§330.131)

A statement must be included in the SOP identifying the location of any known abandoned oil, gas, or water well on the project site. If there are none known, a statement should be included indicating that none are known. Here is example language for an abandoned oil well:

"One abandoned crude oil or natural gas test well is known to exist on the project site and is discussed in Attachment 4 of the Site Development Plan."

As the site is developed, if any wells are encountered, they should be exposed, and the casing should be cut to a minimum of 2 feet below the excavation, and the well should be capped and plugged in accordance with all applicable rules and regulations of the TCEQ, the Railroad Commission of Texas, or other applicable state agency. If wells are located, the facility manager must, within 30 days, provide written notification to the TCEQ's executive director of their location. Within 30 days of finding any water wells, the facility manager will provide written certification to the executive director of the TCEQ that all such wells have been capped, plugged, and closed in accordance with all applicable rules and regulations of the TCEQ or other applicable state agency. A copy of the well plugging report should be provided to the executive director of the TCEQ along with written certification.

For crude oil or natural gas wells, or other wells associated with mineral recovery, the facility manager must provide the executive director of the TCEQ a written certification that all such wells have been properly capped, plugged, and closed in accordance with all applicable rules and regulations of the Railroad Commission of Texas. A copy of the well plugging report to be submitted to the appropriate state agency must also be submitted to the executive director of the TCEQ within 30 days after the well has been plugged.

The facility operator must submit for TCEQ executive director approval a permit modification identifying any proposed changes to the liner installation plan as a result of any well abandonment. In addition, the operator must submit an application to modify the permit if proposing to use any water well, regardless of depth, within the groundwater monitoring network to supply water to the facility. Water wells completed in a different lithologic unit than the uppermost aquifer should be demonstrated to be properly designed to prevent cross-contamination from the waste management unit to the water well production zone. Use of the water well should not exert a hydrologic influence on the uppermost aquifer.

25. Compaction (§330.132)

Compaction of incoming waste provides more efficient use of available space and reduces the amount of settling after the fill is complete. A landfill compactor or similar equipment should be used to accomplish compaction of the waste. Compaction should be accomplished to minimize future consolidation and settlement and provide for the proper application of intermediate and final covers. The incoming waste must be spread in layers and compacted by repeated passages of compaction equipment. The methods for waste compaction must be specified in the SOP.

26. Landfill Cover (§330.133)

For a Type I landfill, daily cover of waste is necessary to control disease vectors, windblown waste, odors, fires, and scavenging, and to promote runoff from the fill area. At the end of each working day, at least 6 inches of earthen material that has not been previously mixed with garbage, rubbish, or other solid waste, or an approved alternative daily cover material, must be placed over all solid waste received during that same day.

To ensure that the daily cover soil will be adequate (i.e., minimize vectors, contaminated storm-water runoff, odors, etc.) the following procedures are recommended:

- The daily cover should be sloped to drain.
- The daily cover should be compacted with a minimum of two passes with compactor wheels or a tracked vehicle to minimize infiltration of storm water, graded to drain, and should not have any waste visibly protruding through it.
- The facility manager, or his or her designee, must document where daily cover has been placed and the facility manager should visually inspect during placement of daily cover that a minimum of 6 inches (compacted thickness) of daily cover has been placed and that no waste is exposed through it. A cover application record must be maintained and must specify the date cover (no exposed waste) was accomplished, how it was accomplished , and the last area covered. This applies to daily, intermediate, and alternate daily cover. For final cover, this record must specify the area covered, the date cover was applied, and the thickness applied that date. It is recommended that the actual time and volume of daily cover placement be documented in the log.
- Typically on the next working day after each rainfall event, the facility manager will inspect all daily cover areas for erosion, exposed waste or other damage, and repair as necessary.
- The facility manager will inspect for seeps from daily cover. All seepage water from waste below the daily cover will be controlled by placement of soil berms and diverted to a collection area. The collected water will be treated as outlined in Attachment 15 of the Site Development Plan.

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Inactive areas with 6 inches of daily cover should be inspected routinely for erosion, ponded water, seeps, protruding waste, or other detrimental conditions that may cause contaminated runoff and nuisance odors. After a period of 180 days, an additional 6 inches of earthen material not previously mixed with garbage, rubbish or other solid waste must be placed over the daily cover for a total of not less than 12 inches of cover. This 12-inch-thick layer of cover soil is classified as intermediate cover. Once the area becomes active again, the top 6 inches may be stripped off for use as daily cover in other areas.

For intermediate cover for a Type I landfill, all areas that receive waste and then become inactive for longer than 180 days must be covered with an additional 6 inches of well compacted cover material, for a total cover thickness of at least 12 inches. The intermediate cover must be graded and maintained to prevent ponding.

The sequence of intermediate cover placement with respect to waste placement and construction of new lined areas must be included in detail in Attachment 1 of the Site Development Plan. The facility manager should inspect the intermediate cover at the site on a monthly basis. However, additional inspections should be performed following significant rainfall events. Erosion gullies or washed-out areas must be repaired within 5 days, weather permitting. The SOP must include a specific schedule and list exceptional events triggering the need for the performance of cover inspections. Any erosion of final or intermediate cover must be properly repaired as soon as possible, but no later than five days of detection of the problem, unless otherwise approved. The performance of cover inspections and any necessary repairs must be documented in the cover inspection record for the facility.

Runoff from areas under intermediate cover are not considered to be in contact with waste as described in §330.133(b) of the rule. However, only intermediate cover which is routinely inspected and repaired in a timely manner after erosion or other defects are detected are included in this provision. Runoff from areas of exposed waste beneath intermediate cover should be properly managed and management methods should be documented in the cover inspection record.

For a Type I landfill, final cover placement should occur as areas of the site are filled to the design top-of-waste grades. Final cover placement over individual areas must be in accordance with Attachment 12 of the Site Development Plan and should permit ongoing landfilling operations to continue until the time of final closure. Surface water drainage must be managed throughout the active life of the site to minimize infiltration into the filled areas and to minimize contact with solid waste. Erosion of final or intermediate cover must be repaired within 5 days, weather permitting, by restoring the cover material, grading, compacting, and seeding it. Periodic inspections and restorations are required during the entire operational life as well as for the post-closure maintenance period.

The final cover system including the erosion control structures (such as drainage swales and chutes) must be maintained during and after construction. During the active life of the site, the facility manager should inspect the final cover system on a weekly basis. Erosion gullies or washed-out areas must be repaired within 5 days, weather permitting, and re-seeded. Post-closure care inspection procedures are outlined in Attachment 13 of the Site Development Plan.

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Throughout the landfill operation, a cover application record or log must be maintained and be readily available for inspection in accordance with §330.133(g). For intermediate cover and daily cover, the log should specify the area covered (by use of the grid system), how it was placed, and when it was completed. For final cover, the log should show the final cover area and reference a final cover certification report for each area. The signature of the facility manager would certify by each entry that the work was accomplished as stated in the log. Repairs must be documented in the appropriate cover inspection record or log.

Type IV landfills are not allowed to have Alternate Daily Cover (ADC). For a Type I landfill, depending upon the kinds of solid waste received and other operational conditions, ADC as described below may be used for a period of up to 24 hours. ADC may be used in conjunction with or as a substitute for six inches of well-compacted soil. Use of ADC should enhance odor control and care must be taken to ensure that odors are not increased because of the use of ADC. Tarps and other such material may be used if left in place and covered daily with new waste or new cover. Only ADC that is authorized by the TCEQ may be used. During any temporary authorization period for ADC, a status report on the use of ADC must be submitted to the TCEQ on a two-month basis. The status report must describe the effectiveness of the alternative material, any problems that may have occurred, and corrective actions required as a result of such problems.

27. Ponded Water (§330.134)

The prevention of ponding of water is necessary to control infiltration of water into the waste. Additionally, ponded water can be a source of odor, can be breeding grounds for vectors, and can be a source of harborage for vectors.

A ponding prevention plan in the SOP is needed to identify techniques to be used at the landfill to prevent the ponding of water over waste. An inspection schedule to identify potential ponding locations should be a part of the ponded water prevention plan. Common corrective actions when ponded water is found must be a part of the prevention plan. General instructions to manage water that has been in contact with waste must be a part of the prevention plan. This new requirement for a ponding prevention plan will assist in the prevention of off-site odors and the undesirable mixing of water and waste.

The ponded water prevention plan must consider preventative actions and corrective actions for extended wet weather periods. Flexibility should be developed for the prevention plan for when weather conditions exist that preclude following the plan. Corrective action provisions can be written to account for actions to be taken during and after wet weather conditions.

A common element of a ponding prevention plan is routine site grading and maintenance that minimizes the ponding of water over areas containing waste.

In instances where ponding occurs, the water must be removed and the depression filled within 7 days, weather permitting. If the ponded water has come into contact with waste, leachate, or

waste-contaminated soils, the ponded water must be managed in accordance with the Leachate and Contaminated Water Plan.

The rule on ponded water prevention applies to all municipal solid waste facilities and transfer stations to the extent possible.

28. Waste in Enclosed Containers at Type IV Landfills (§330.135)

This section pertains only to Type IV landfills.

Typical contents of an SOP must normally contain language that describes the way enclosed containers will be controlled in order to exclude unauthorized waste.

Reference is made to this subject in §330.135:

> Acceptance of waste in enclosed containers or enclosed vehicles at Type IV landfills must be in accordance with the following requirements.
>
> (1) Waste in enclosed containers or enclosed vehicles must not be accepted at a Type IV landfill unless all of the following conditions have been met.
>
> (A) The landfill to receive the waste must be participating in the funding program to monitor these activities as detailed in paragraph (2) of this section.
>
> (B) Each enclosed container or enclosed vehicle must have all required approvals and/or permits from the executive director in accordance with §330.32 of this title (relating to Collection and Transportation Requirements).
>
> (C) Enclosed containers or enclosed vehicles must only be accepted at their designated time and on the specified day in accordance with this section, §330.32 of this title, commission permits, or other orders of the commission.
>
> (D) A commission inspector shall be on site and shall witness the unloading process to ensure that no putrescible waste or household waste is present. Any waste considered nonallowable by the inspector must be removed from the working face and subsequently from the facility in accordance with §330.117 of this title (relating to Unloading of Waste).
>
> (E) Each transporter delivering waste in enclosed containers or enclosed vehicles must, prior to discharging the load, provide to the landfill operator a transporter trip ticket for the route being delivered. Trip tickets must be maintained as part of the operating record.
>
> (F) The commission may revoke a transporter's authorization to deliver waste to a Type IV municipal solid waste facility for failure to comply with this chapter.

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29. Disposal of Special Wastes (§330.136)

This section pertains only to Type I landfills. Type IV landfills are not normally allowed to accept special waste.

Special wastes are wastes that because of their quantity; concentration; or physical, chemical, or biological properties require special handling and disposal to protect human health or the environment. The definition of special waste found in §330.2, lists examples of wastes meeting that definition that may be accepted at a Type I facility in accordance with §330.136(a) and (b). The facility must have a plan for the identification, acceptance, and management of special waste. The plan must include procedures to process requests for approval to accept special wastes in accordance with §330.136(a)(2). Approvals may be waste-specific and/or site specific. For facilities without site-specific approval for special wastes, approval requests shall be submitted to the TCEQ and shall include the following:

- A complete description of the chemical and physical characteristics of each waste and the quantity and rate at which each waste is produced and/or the expected frequency of disposal.
- An operational plan containing the proposed procedures for handling each waste and listing required protective equipment for operating personnel and onsite emergency equipment.
- A contingency plan outlining responsibility for containment and cleanup of any accidental spills occurring during the delivery and/or disposal operation.

The following special wastes may be authorized in the facility permit and accepted at the facility without prior written authorization in accordance with §330.136(b).

- Sludges, grease trap waste, grit trap waste or liquid waste from municipal sources will be accepted if the material has been treated or processed, and has passed the paint filter test and is certified to contain no free liquid, as prescribed in §330.136(b)(7).
- Dead animals and slaughter-house wastes will be buried and covered with a minimum of 3 feet of other solid waste or a minimum of 2 feet of soil immediately upon receipt.
- Empty containers, which have been used for pesticides, herbicides, fungicides, or rodenticides, will be accepted and disposed of in accordance with Title 30 TAC §330.136(b)(5).
- Non-regulated asbestos-containing materials (non-RACM) may be accepted for disposal provided the wastes are placed on the active working face and covered. Under no circumstances shall any material containing non-RACM be placed on any surface or roadway that is subject to vehicular traffic or disposed of by any other means by which the material could be crumbled into a friable state.

- Regulated asbestos-containing materials (RACM) may be accepted at the facility in accordance with §330.136(b)(3). Prior to initial receipt of RACM at this facility, the facility manager will dedicate a specific area of the site for receipt of RACM and notify the TCEQ in writing of the bags and designate appropriate personnel for implementation of the contingency p designated area. The facility manager will also prepare a contingency plan in case of ruptured lan. As the operation continues, the facility manager will notify the TCEQ in writing of any new dedicated areas for RACM. RACM disposal locations will be identified by surveying and marked by a registered professional surveyor on a current site drawing at the site, a copy of which shall be submitted to the executive director of the TCEQ. Each load of RACM that arrives on-site will be documented. This documentation will include the volume of material, and the location and depth of its disposal. Delivery of RACM will be coordinated with the facility manager so that the waste will arrive during times that it can be properly managed by site personnel. RACM will be accepted at the site only if it is contained in tightly closed containers or bags, or wrapped as necessary with 6-mil-thick polyethylene. RACM will be placed in landfill units such that it will not be exposed as a result of erosion or weathering. At a minimum, the RACM will be placed at least 20 feet away from exterior final sideslopes, and at least 10 feet below final grade. During unloading and placement of RACM in the waste fill, care will be exercised to prevent breaking open the bags or containers. One foot of soil cover or 3 feet of asbestos-free municipal solid waste will be placed over the RACM immediately after it is placed in the landfill unit. RACM that has been designated as Class 1 industrial solid waste, and that arrives at the facility will be disposed of in accordance with §330.137(b) or in accordance with this section of the SOP. Upon closure of the facility, a notation indicating that the site accepted RACM will be placed in the deed record. This notation will indicate where the RACM was disposed of on the property by showing its location on a site diagram. A copy of this documentation will be provided to the TCEQ.

30. Disposal of Industrial Wastes (§330.137)

This section pertains to Type I landfills. Disposal of industrial waste is not normally allowable for Type IV landfills.

Typical contents of an SOP should normally contain some of the following example language:

"Industrial nonhazardous waste is defined by §330.2 as solid waste resulting from or incidental to any process of industry or manufacturing, or mining or agricultural operations, classified as follows: Class II Industrial Solid Waste – any individual solid waste or combination of industrial solid wastes that cannot be described as Class I or Class III, as defined in §335.506 (relating to Class II waste determination). Class III Industrial Solid Waste – any inert and essentially insoluble industrial solid waste, including materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc. that are not readily decomposable as defined in §335.507 (relating to Class III waste determination). Class II and Class III industrial solid wastes may be accepted at

a Type I facility, provided disposal of these wastes does not interfere with proper operation of the facility."

31. Visual Screening of Deposited Waste (§330.138)

This section pertains to screening of deposited waste from view. Typical contents of an SOP should normally contain some of the following example language:

"Screening of daily operations shall be provided by developing the areal fill portion of the landfill from the exterior to the interior. Sequence of development plans, in Attachment 1, have been developed considering the construction of the exterior side slope areas first. By constructing the side slope areas first, intermediate or final cover will be placed on the side slopes prior to proceeding with filling operations toward the interior of the landfill. Final or intermediate cover on the side slopes will provide screening of the working face. Screening can be provided by protecting existing trees or planting new trees around the perimeter of the site, as necessary. Permanent berms provide screening of deposited waste from view. Naturally existing green belts and vegetation provide screening of deposited waste from view."

32. Contaminated Water Discharge (§330.139)

The facility manager should take all steps necessary to control and prevent the discharge of contaminated water from the facility. If the discharge of contaminated water becomes necessary, the facility manager must obtain specific written authorization from the TCEQ prior to discharge. All water coming in contact with waste or contaminated soils will be treated as contaminated water. Run-on and run-off water for the 25-year, 24-hour storm event will be controlled by the procedures set forth in Attachment 6 and Attachment 15 of the Site Development Plan. The landfill must be operated consistent with §330.55(b)(1)(A)-(D) regarding discharge of solid wastes or pollutants into waters of the United States.

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Appendix: Pertinent Rules Regarding SOPs

§330.51. Permit Application for Municipal Solid Waste Facilities.

330.51(a)(4) Part IV of the application shall contain the site operating plan that shall discuss how the applicant plans to conduct his daily operations at the site. Part IV shall consist of the documents required in §330.57 of this title (relating to Technical Requirements of Part IV of the Application).

§330.57. Technical Requirements of Part IV of the Application.

The Site Operating Plan shall contain the information required by §330.114 of this title (relating to Site Operating Plan).

§330.111. General.

(a) The approved site development plan, the site operating plan, the final closure plan, the post-closure maintenance plan, the landfill gas management plan, and all other documents and plans required by this chapter shall become operational requirements and shall be considered a part of the operating record of the facility. Any deviation from the permit and incorporated plans or other related documents associated with the permit is a violation of this chapter.

(b) To the extent that a requirement has been changed by this subchapter, the facility may continue to operate under requirements contained in previously issued authorizations, except as provided by this subchapter. The landfill permittee is under an obligation to apply for a permit modification in accordance with §305.70(k) of this title (relating to Municipal Solid Waste Permit and Registration Modifications), as applicable, to incorporate the amended requirements. A permittee's initial application will be processed as a modification and any subsequent applications will be processed in accordance with Chapter 305, Subchapter D of this title (relating to Amendments, Renewals, Transfers, Corrections, Revocation, and Suspension of Permits). The executive director will determine a schedule for landfill permittees to submit an application to modify their permit to conform to the requirements in this subchapter. Timely submission of a request for a permit modification qualifies the owners or operators of existing landfills to operate under requirements contained in the existing permit.

§330.112. Pre-Operation Notice.

The owner or operator shall provide written notice in the form of a soils and liner evaluation report as described in §330.206 of this title (relating to Soils and Liner Evaluation Report (SLER) and Flexible Membrane Liner Evaluation Report (FMLER)) of the final construction and lining of a new disposal area (sector) to the executive director for review 14 days prior to the placement of waste. The executive director has 14 days to provide a verbal or written response. If by the end of the 14th day following the executive director's receipt of the report no comments are received, the operator may begin placing waste. This provision is not applicable to the initial opening of a municipal solid waste landfill.

§330.113. Recordkeeping Requirements.

(a) A copy of the permit, the approved site development plan, the site operating plan, the final closure plan, the post-closure maintenance plan, the landfill gas management plan, and any other required plan or other related document shall be maintained at the municipal solid waste facility, or an alternate location approved by the executive director. This requirement shall be considered a part of the operating record for the facility.

(b) The owner or operator shall within seven working days of completion or receipt of analytical data, as appropriate, record and retain in the operating record the following information:

(1) any and all location-restriction demonstrations;

(2) inspection records, training procedures, and notification procedures relating to excluding the receipt of prohibited waste;

(3) all results from gas monitoring and any remediation plans relating to explosive and other gases;

(4) any and all unit design documentation for the placement of leachate or gas condensate in a municipal solid waste landfill;

(5) any and all demonstration, certification, findings, monitoring, testing, and analytical data relating to groundwater monitoring and corrective action;

(6) closure and post-closure care plans and any monitoring, testing, or analytical data relating to post-closure requirements;

(7) any and all cost estimates and financial assurance documentation relating to financial assurance for closure and post-closure;

(8) any and all information demonstrating compliance with the small community exemption criteria;

(9) copies of all correspondence and responses relating to the operation of the facility, modifications to the permit, approvals, and other matters pertaining to technical assistance;

(10) any and all documents, manifests, trip tickets, etc., involving special waste; and

(11) any other document(s) as specified by the approved permit or by the executive director.

(c) The owner or operator shall provide written notification annually to the executive director for each occurrence that documents from subsection (b) of this section are placed into or added to the operating record. All information contained in the operating record must be furnished upon request to the executive director and must be made available for inspection by the executive director.

(d) The owner or operator shall retain all information contained within the operating record and the different plans required for the facility for the life of the facility including the post-closure care period.

(e) The owner or operator shall maintain training records in accordance with §335.586(d) and (e) of this title (relating to Personnel Training).

(f) The owner or operator shall maintain personnel operator licenses issued in accordance with Chapter 30, Subchapter F of this title (relating to Municipal Solid Waste Facility Supervisors), as required.

(g) The executive director may set alternative schedules for recordkeeping and notification requirements as specified in subsections (a) - (f) of this section, except for notification requirements contained in Subchapter L of this chapter (relating to Location Restrictions) for any proposed lateral expansion located within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft or notification relating to landowners whose property overlies any part of the plume of contamination, if contaminants have migrated off site as indicated by groundwater sampling.

(h) The owner or operator shall maintain records to document the annual waste acceptance rate for the facility. Documentation must include maintaining the quarterly solid waste summary reports and the annual solid waste summary reports required by §330.603 of this title (relating to Reports) in the operating record. After an updated site operating plan permit modification under §330.111(b) of this title (relating to General) is approved, if the annual waste acceptance rate exceeds the rate estimated in the landfill permit application and the waste increase is not due to a temporary occurrence, the owner or operator shall file an application to modify the permit application, including the revised estimated waste acceptance rate, in accordance with §305.70(k) of this title (relating to Municipal Solid Waste Permit and Registration Modifications), within 90 days of the exceedance as established by the sum of the previous four quarterly summary reports. The application must propose any needed changes in the site operating plan to manage the increased waste acceptance rate to protect public health and the environment. The increased waste acceptance rate may justify requiring permit conditions that are different from or absent in the existing permit. This subsection is not intended to make an estimated waste acceptance rate a limiting parameter of a landfill permit.

§330.114. Site Operating Plan.

The site operating plan must include provisions for site management and the site operating personnel to meet the general and site-specific requirements of this subchapter. The site operating plan must be retained during the active life of the site and throughout the post-closure care maintenance period. The site operating plan must include the following:

(1) a description of functions and minimum qualifications for each category of key personnel to be employed at the facility and for the supervisory personnel in the chain-of-command;

(2) a description, including the minimum number, size, type, and function, of the equipment to be utilized at the facility based on the estimated waste acceptance rate and other operational requirements, and a description of the provisions for back-up equipment during periods of breakdown or maintenance of this listed equipment;

(3) a description of the general instructions that the operating personnel shall follow concerning the operational requirements of this subchapter;

(4) identification of applicable training requirements under §335.586(a) and ©) of this title (relating to Personnel Training) which shall be followed;

(5) procedures for the detection and prevention of the disposal of prohibited wastes, including regulated hazardous waste as defined in 40 Code of Federal Regulations (CFR) Part 261, and of polychlorinated biphenyls (PCB) wastes as defined in accordance with 40 CFR Part 761 unless authorized by the United States Environmental Protection Agency. The detection and prevention program must include the following:

(A) procedures to be used by the owner or operator to control the receipt of prohibited waste. The procedures must include the random inspections of incoming loads and must include the inspection of compactor vehicles. In addition to the random inspections, trained staff shall observe each load that is disposed at the landfill;

(B) records of all inspections;

(C) training for appropriate facility personnel responsible for inspecting or observing loads to recognize prohibited waste;

(D) notification to the executive director of any incident involving the receipt or disposal of regulated hazardous waste or PCB waste at the landfill;

(E) provisions for the remediation of the incident; and

(6) general instructions required to be included in the site operating plan by other sections of this subchapter.

§330.115. Fire Protection.

The owner or operator shall maintain a source of earthen material in such a manner that it is available at all times to extinguish any fires. The source must be sized to cover any waste received for disposal not covered with six inches of earthen material. Sufficient on-site equipment must be provided to place a six-inch layer of earthen material to cover any waste not already covered with six inches of earthen material within one hour of detecting a fire. The site operating plan must contain calculations demonstrating the adequacy of the earthen material. The executive director may approve alternate methods of fire protection. The potential for accidental fires must be minimized by use of proper compaction and earthen material cover. The site operating plan must contain a fire protection plan that identifies the fire protection standards to be used at the facility and how personnel are trained. The operator must initiate procedures in accordance with the fire protection plan upon detection of a fire. For any municipal solid waste activity on a landfill that stores or processes combustible materials, such as solidification basins, brush collection areas, construction waste and demolition waste areas, composting areas, mulching areas, shredding areas, and used oil storage areas, the site operating plan must address fire protection measures specific to each individual activity. If a fire occurs that is not extinguished within ten minutes of detection, the commission's regional office must be contacted immediately after detection, but no later than four hours by telephone, and in writing within 14 days with a description of the fire and the resulting response.

§330.116. Access Control.

Public access to all municipal solid waste facilities must be controlled by means of artificial barriers, natural barriers, or a combination of both, appropriate to protect human health and safety and the environment. Uncontrolled access to other operations located at a municipal solid waste facility must be prevented. The provisions for access control must be specified in the site operating plan. The preferred method of landfill access control is fences and gates. Regardless of the access control method, the site operating plan must include an inspection and maintenance schedule, notification to the commission's regional office of a breach, provisions for temporary and permanent repairs, and notification to the commission's regional office when a permanent access control breach repair is completed. The commission's regional office must be notified of the breach within 24 hours of detection. The breach must be temporarily repaired within 24 hours of detection and must be permanently repaired by the time specified to the commission's regional office when it was reported in the initial breach report. If a permanent repair can be made within eight hours of detection, no notice to the commission's regional office is required.

§330.117. Unloading of Waste.

(a) The unloading of solid waste must be confined to as small an area as practical. The maximum size of the unloading area must be specified in the site operating plan. The number and types of unloading areas must be identified. A trained staff person shall be provided at all facilities to monitor all incoming loads of waste. A trained staff person shall also be on duty during operating hours at each area where waste is being unloaded to direct and observe the unloading of solid waste. The owner or operator is not required to accept any solid waste which

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the owner or operator determines will cause or may cause problems in maintaining full and continuous compliance with these sections. Small municipal solid waste landfill facilities (MSWLFs) may submit a request to receive approval for an alternate plan, if sufficient justification is provided.

(b) The unloading of waste in unauthorized areas is prohibited. Any waste deposited in an unauthorized area must be removed immediately and disposed of properly. Trained staff shall observe each load that is disposed at the landfill. The working face staff shall have the authority and responsibility to reject unauthorized loads, have unauthorized material removed by the transporter, and/or assess appropriate surcharges, and have the unauthorized material removed by on-site personnel or otherwise properly managed by the facility. A record of unauthorized material removal must be maintained in the operating record.

(c) The unloading of prohibited wastes at the municipal solid waste facility must not be allowed. Prohibited wastes are listed in §330.5(e) of this title (relating to General Prohibitions). The permit issued to the municipal solid waste facility may also prohibit other wastes. Necessary steps shall be taken by the owner or operator to ensure compliance with this provision. Any prohibited waste must be returned immediately to the transporter or generator of the waste or otherwise properly managed by the landfill.

(d) Any MSWLF facility may establish a brush and/or construction-demolition (B&CD) waste area on site that is designated to receive B&CD waste.

(e) At Type IV landfills, only B&CD wastes and rubbish (trash) that are free of putrescible and household waste are allowed.

(f) In addition to the other operating requirements of this subchapter, Type IV landfill operators that accept rubbish shall provide the following during all periods of operation.

(1) A written procedure retained on site to ensure that containers with any putrescible wastes are not accepted. This might include or be a combination of a manifest system, surcharges, contractual agreements with transporters, or other acceptable means. This written procedure must be made available for review by the executive director. The procedure must be followed and must be modified as necessary to accomplish its purpose.

(2) A written procedure retained on site for the removal of any putrescible wastes and other prohibited waste to an approved disposal facility must specify the means to be used for removal of putrescible wastes illegally disposed of at the landfill. In all cases, such wastes must be removed from the working face immediately upon discharge and returned to the offending transporter's vehicle or placed in suitable collection bins and must not be allowed to remain on the landfill in the collection bins for more than 24 hours. The equipment necessary to meet the chosen alternative must be specified and must be on site and operable during operating hours. This written procedure must be made available for review by the executive director. The procedure must be followed and must be modified as necessary to accomplish its purpose.

(3) A procedure whereby the transporter certificates required by §330.32 of this title (relating to Collection and Transportation Requirements) must be retained at the landfill and be available for inspection by the executive director.

(g) Type IV landfill owners or operators shall not accept wastes from completely enclosed containers or enclosed vehicles except in accordance with §330.135 of this title (relating to Waste in Enclosed Containers or Enclosed Vehicles Accepted at Type IV Landfills).

(h) In addition to the requirements in §330.119 of this title (relating to Site Sign), Type IV landfill owners or operators shall identify wastes that are not allowed and stating the landfill's requirements for transporters, such as certificates, manifests, and surcharges or other penalties that may be imposed in the event that transporters do not meet the requirements of this chapter.

(i) At Type VIII facilities, only used and scrap tires free of any other type of waste are allowed to be accepted.

§330.118. Facility Operating Hours.

(a) The site operating plan must specify the waste acceptance hours and the operating hours when materials will be transported on or off site, and the hours when heavy equipment may operate. The waste acceptance hours of a municipal solid waste facility may be any time between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, unless otherwise approved in the authorization for the facility. Waste acceptance hours within the 7:00 a.m. to 7:00 p.m. weekday span do not require other specific approval. Transportation of materials and heavy equipment operation must not be conducted between the hours of 9:00 p.m. to 5:00 a.m., unless otherwise approved in the authorization for the facility. Operating hours for other activities do not require other specific approval.

(b) In addition to the requirements of subsection (a) of this section, the executive director may approve alternate operating hours of up to five days in a calendar-year period to accommodate special occasions, special purpose events, holidays, or other special occurrences as specified in §305.70 of this title (relating to Municipal Solid Waste Permit and Registration Modifications).

(c) The commission's regional offices may allow additional temporary operating hours to address disaster or other emergency situations, or other unforeseen circumstances that could result in the disruption of waste receipt at the facility.

(d) The facility must record in the site operating record the dates and times when any alternate or additional operating hours are utilized.

§330.119. Site Sign.

Each facility must conspicuously display at all entrances through which wastes are received, a sign measuring at least four feet by four feet with letters at least three inches in height stating the type of site, the hours and days of operation, an emergency 24-hour contact phone number(s) that reaches an individual with the authority to obligate the facility at all times that the

facility is closed, the local emergency fire department phone number, and the permit number or facility number. The facility sign must be readable from the facility entrance. The posting of erroneous or misleading information constitutes a violation of this section.

§330.120. Control of Windblown Solid Waste and Litter.

The working face must be maintained and operated in a manner to control windblown solid waste. Windblown material and litter must be collected and properly managed in accordance with paragraphs (1) and (2) of this section to control unhealthy, unsafe, or unsightly conditions.

(1) Windblown waste and litter at the working face must be controlled by using engineering methods or measures, including portable panels, temporary fencing, and perimeter fencing or comparable engineering controls. The site operating plan must specify the means for confining windblown waste and litter.

(2) Litter scattered throughout the site, along fences and access roads, and at the gate must be picked up once a day on the days the facility is in operation and properly managed. The site operating plan must specify the means for complying with this requirement.

§330.121. Easements and Buffer Zones.

(a) Easement protection. No solid waste unloading, storage, disposal, or processing operations shall occur within any easement, buffer zone, or right-of-way that crosses the site. No solid waste disposal shall occur within 25 feet of the center line of any utility line or pipeline easement, unless otherwise authorized by the executive director. All pipeline and utility easements must be clearly marked with posts which extend at least six feet above ground level, spaced at intervals no greater than 300 feet.

(b) Buffer zones. A minimum separating distance of 50 feet shall be maintained between solid waste processing and disposal activities and the boundary of the facility, or as determined by the requirements of §330.56 of this title (relating to Attachments to the Site Development Plan). The buffer zone must provide for safe passage for fire-fighting and other emergency vehicles.

§330.122. Landfill Markers and Benchmark.

All required landfill markers and the benchmark must be maintained so that they are visible during operating hours. Markers that are removed or destroyed must be replaced within 15 days of the removal or destruction. All markers must be maintained to retain visibility. Landfill markers must be inspected on a monthly basis to ensure that they are installed and maintained in compliance with the site operating plan. Records of all inspections must be maintained at the facility. Landfill markers must be repaired or replaced within 15 days of discovering a marker does not meet regulatory requirements.

§330.123. Materials Along the Route to the Site.

The facility owner or operator shall take steps to encourage that vehicles hauling waste to the facility are enclosed or provided with a tarpaulin, net, or other means to effectively secure the load in order to prevent the escape of any part of the load by blowing or spilling. The owner or operator shall take actions such as posting signs, reporting offenders to proper law enforcement officers, adding surcharges, or similar measures. On days when the facility is in operation, the owner or operator shall be responsible for at least once per day cleanup of waste materials spilled along and within the right-of-way of public access roads serving the facility for a distance of two miles in either direction from any entrances used for the delivery of waste to the facility. The facility operator shall consult with the Texas Department of Transportation, county, and/or local governments with maintenance authority over the roads concerning cleanup of public access roads and right-of-ways. An alternate clean-up frequency and distance may be approved in the site operating plan.

§330.124. Disposal of Large Items.

(a) Large, heavy, or bulky items, which cannot be incorporated in the regular spreading, compaction, and covering operations at landfills should be recycled. A special area should be established to collect these items. This special collection area must be designated as a large-item salvage area. The owner or operator shall remove the items from the site often enough to prevent these items from becoming a nuisance and to preclude the discharge of any pollutants from the area.

(b) Items that can be classified as large, heavy, or bulky can include, but are not limited to, white goods (household appliances), air conditioner units, metal tanks, large metal pieces, and automobiles.

(c) Refrigerators, freezers, air conditioners, and any other items containing chlorinated fluorocarbon (CFC) must be handled in accordance with 40 Code of Federal Regulations §82.156(f), as amended.

§330.125. Air Criteria.

(a) The landfill is subject to commission rules concerning burning and air pollution control. The owner or operator shall ensure that any unit of the municipal solid waste facility does not violate any applicable requirement of the approved state implementation plan developed under the Federal Clean Air Act, §110, as amended, and §330.5(d) of this title (relating to General Prohibitions), which prohibits the open burning of waste at any municipal solid waste landfill facility.

(b) The site operating plan must have an odor management plan that addresses the sources of odors and includes general instructions to control odors or sources of odors. Plans for odor management must include the identification of wastes that require special attention such as septage, grease trap waste, dead animals, and leachate.

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§330.126. Disease Vector Control.

The site operator shall control on-site populations of disease vectors using proper compaction and daily cover procedures, and the use of other approved methods when needed. The general methods and performance-based frequencies for disease vector control must be specified in the site operating plan.

§330.127. Site Access Roads.

(a) All-weather roads must be provided from the facility to access public roads and within the facility to the unloading area(s) designated for wet-weather operation. Tracked mud and associated debris at the access to the facility on the public roadway must be removed at least once per day on days when mud and associated debris are being tracked onto the public roadway. The methods for controlling mud and associated debris tracked onto public roadways must be specified in the site operating plan. Provisions for controlling the tracking of mud and associated debris on public roadways are listed in §330.55(a)(2) of this title (relating to Site Development Plan).

(b) Dust from on-site and other access roadways must not become a nuisance to surrounding areas. A water source and necessary equipment or other means of dust control approved by the executive director must be provided.

(c) All on-site and other access roadways must be maintained in a clean and safe condition. Litter and any other debris must be picked up at least daily and taken to the working face. Access roadways must be regraded to minimize depressions, ruts, and potholes. The frequency of regrading must be specified in the site operating plan.

§330.128. Salvaging and Scavenging.

Salvaging must not be allowed to interfere with prompt sanitary disposal of solid waste or to create public health nuisances. Salvaged materials may be considered as potential recycled materials. The owner or operator shall remove the salvaged items from the facility often enough to prevent the items from becoming a nuisance, to preclude the discharge of any pollutants from the area, and to prevent an excessive accumulation of the material at the facility. Class 1 industrial and other special wastes received at the disposal facility must not be salvaged. Pesticide, fungicide, rodenticide, and herbicide containers must not be salvaged unless being salvaged through a state-supported recycling program. Scavenging must not be allowed.

§330.129. Endangered Species Protection.

The facility and the operation of the facility must not result in the destruction or adverse modification of the critical habitat of endangered or threatened species, or cause or contribute to the taking of any endangered or threatened species. Criteria for the protection of endangered species are listed in §330.53(b)(13) of this title (relating to Technical Requirements of Part II of the Application). Facilities must be operated in conformance with any endangered or threatened species protection plan required by the commission.

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§330.130. Landfill Gas Control.

All landfill gases must be monitored in accordance with a landfill gas management plan in accordance with §330.56(n) of this title (relating to Attachments to the Site Development Plan). The required reports and other submittals must be included in the operating record of the facility and submitted to the executive director.

§330.131. Oil, Gas, and Water Wells.

(a) The facility operator shall provide written notification to the executive director of the location of any and all existing or abandoned water wells situated within the facility upon discovery during the course of facility development. The facility operator shall, within 30 days of such a discovery, provide the executive director with such notification and written certification that such wells have been capped, plugged, and closed in accordance with all applicable rules and regulations of the commission or other state agency. Water wells that will be used for supply at the facility may remain in use as long as they are located outside of the groundwater monitoring well network or the waste footprint, and are not impacted by landfill operations. Water wells that will be used for supply at the landfill that are located inside of the groundwater monitoring network may be used if identified and approved in the facility permit.

(b) The facility operator shall provide written notification to the executive director of the location of any and all existing or abandoned on-site crude oil or natural gas wells, or other wells associated with mineral recovery that are under the jurisdiction of the Railroad Commission of Texas. The facility owner or operator shall provide the executive director with written notification of the location of any such well within 30 days after discovery during the course of facility development. Within 30 days after plugging of any such well, the facility operator shall provide the executive director with written certification that these wells have been properly capped, plugged, and closed in accordance with all applicable rules and regulations of the Railroad Commission of Texas. Producing crude oil or natural gas wells that do not affect or hamper landfill operations may be operated within the facility boundary, if identified in the permit for the facility or in a written notification to the executive director.

(c) Any water or other type of wells under the jurisdiction of the commission must be plugged in accordance with all applicable state requirements or additional requirements imposed by the executive director. A copy of the well plugging report required to be submitted to the appropriate state agency must also be submitted to the executive director within 30 days after the well has been plugged.

(d) The facility operator shall submit for executive director approval a permit modification identifying any proposed changes to the liner installation plan as a result of any well abandonment.

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§330.132. Compaction.

Solid waste must be spread and compacted by repeated passages of compaction equipment such that each layer of solid waste is thoroughly compacted. The methods for compaction must be specified in the site operating plan.

§330.133. Landfill Cover.

(a) Daily cover. All landfills, with the exception of Type IV landfills, must apply six inches of well-compacted earthen material not previously mixed with garbage, rubbish, or other solid waste at the end of each operating day to control disease vectors, fires, odors, windblown litter or waste, and scavenging, unless the executive director requires a more frequent interval to control disease vectors, fires, odors, windblown litter or waste, and scavenging. Landfills that operate on a 24-hour basis must cover the working face or active disposal area at least once every 24 hours. All Type IV facilities must follow the requirements of this subsection except the rate of cover must be no less than weekly, unless the commission approves another schedule.

(b) Intermediate cover. All areas that have received waste but will be inactive for longer than 180 days must provide intermediate or final cover. This intermediate cover must include six inches of suitable earthen material that is capable of sustaining native plant growth and must be seeded or sodded following its application in order to control erosion, or must be a material approved by the executive director that will otherwise control erosion. This intermediate cover must be not less than 12 inches of suitable earthen material. The intermediate cover must be graded to prevent ponding of water, and plant growth or other erosion control features must be maintained. Runoff from areas which have received intermediate cover must not be considered as having come into contact with the working face or leachate for the purpose of §330.55(b)(6) of this title (relating to Site Development Plan).

(c) Alternative material daily cover. Alternative material daily cover (ADC) may be allowed by a temporary authorization under §305.70(m) of this title (relating to Municipal Solid Waste Permit and Registration Modifications) followed by a permit amendment or a modification in accordance with §305.70(k)(1) of this title. Use of ADC is limited to a 24-hour period after which either waste or daily cover as defined in subsection (a) of this section must be placed.

(1) An ADC operating plan must be included in the request for temporary authorization or in the site development plan that includes the following:

(A) a description and minimum thickness of the alternative material to be used;

(B) its effect on vectors, fires, odors, and windblown litter and waste;

(C) the application and operational methods to be utilized at the site when using this alternative material;

(D) chemical analysis of the material and/or the Material Safety Data Sheet(s) for the alternative material; and

(E) any other pertinent characteristic, feature, or other factors related to the use of this alternative material.

(2) A status report on the ADC must be submitted on a two-month basis to the executive director during the temporary authorization period describing the effectiveness of the alternative material, any problems that may have occurred, and corrective actions required as a result of such problems. If no unresolved problems have occurred within the temporary authorization period, status reports may no longer be required.

(3) ADC must not be allowed when the landfill is closed for a period greater then 24 hours, unless the executive director approves an alternative length of time.

(d) Temporary waiver. The executive director may grant a temporary waiver from the requirements of subsections (a) - ©) of this section if the owner or operator demonstrates that there are extreme seasonal climatic conditions that make meeting such requirements impractical.

(e) Final cover. Final cover for the landfill must be in accordance with the site closure plan and Subchapter J of this chapter (relating to Closure and Post-Closure).

(f) Erosion of cover. Erosion of final or intermediate cover must be repaired within five days of detection by restoring the cover material, grading, compacting, and seeding unless the commission's regional office approves otherwise, based on the extent of the damage requiring more time to repair or the repairs are delayed because of weather conditions. The date of detection of erosion and date of completion of repairs, including reasons for any delays, must be documented in the cover inspection record required under subsection (g) of this section. The site operating plan must establish a frequency, and identify other occasions, for conducting inspections of the final and intermediate covers to detect the need for repairs. The periodic inspections and restorations are required during the entire operational life and for the post-closure maintenance period.

(g) Cover inspection record. Each landfill must keep a cover application record on site readily available for inspection by commission representatives and authorized agents or employees of local governments having jurisdiction. This record must specify the date cover (no exposed waste) was accomplished, how it was accomplished, and the last area covered. This applies to daily, intermediate, and alternate daily cover. For final cover, this record must specify the area covered, the date cover was applied, and the thickness applied that date. Each entry must be certified by the signature of the on-site supervisor that the work was accomplished as stated in the record. The cover inspection record must document inspections required under subsection (f) of this section, the findings, and corrective action taken when necessary.

§330.134. Ponded Water.

The ponding of water over waste on a landfill, regardless of its origin, must be prevented. Ponded water that occurs in the active portion of a landfill or on a closed landfill must be

eliminated and the area in which the ponding occurred must be filled in and regraded within seven days of the occurrence. A ponding prevention plan must be provided in the site operating plan that identifies techniques to be used at the landfill to prevent the ponding of water over waste, an inspection schedule to identify potential ponding sites, corrective actions to remove ponded water, and general instructions to manage water that has been in contact with waste .

§330.135. Waste in Enclosed Containers or Enclosed Vehicles Accepted at Type IV Landfills.

Acceptance of waste in enclosed containers or enclosed vehicles at Type IV landfills must be in accordance with the following requirements.

(1) Waste in enclosed containers or enclosed vehicles must not be accepted at a Type IV landfill unless all of the following conditions have been met.

(A) The landfill to receive the waste must be participating in the funding program to monitor these activities as detailed in paragraph (2) of this section.

(B) Each enclosed container or enclosed vehicle must have all required approvals and/or permits from the executive director in accordance with §330.32 of this title (relating to Collection and Transportation Requirements).

(C) Enclosed containers or enclosed vehicles must only be accepted at their designated time and on the specified day in accordance with this section, §330.32 of this title,, commission permits, or other orders of the commission.

(D) A commission inspector shall be on site and shall witness the unloading process to ensure that no putrescible waste or household waste is present. Any waste considered nonallowable by the inspector must be removed from the working face and subsequently from the facility in accordance with §330.117 of this title (relating to Unloading of Waste).

(E) Each transporter delivering waste in enclosed containers or enclosed vehicles must, prior to discharging the load, provide to the landfill operator a transporter trip ticket for the route being delivered. Trip tickets must be maintained as part of the operating record.

(F) The commission may revoke a transporter's authorization to deliver waste to a Type IV municipal solid waste facility for failure to comply with this chapter.

(2) The executive director shall determine the approximate annual costs of implementing and maintaining the surveillance and enforcement of all the activities associated with the acceptance of enclosed containers or enclosed vehicles at Type IV landfills.

(A) Notification of these costs will be provided to each affected holder of a Type IV landfill permit with notice of public hearing to apportion these costs.

(B) The public hearing will be held at a location to be determined by the commission with at least 20 days' advance notice. Notice will be provided Type IV landfill operators by regular and certified mail.

(C) The public hearing will be for the purpose of establishing the total compensation and expenditures required to administer this program and the apportionment of those costs to the Type IV landfill operators to be reimbursed to the commission.

(D) Unless authorized by the executive director, the apportioned monthly payments will be due by the 10th day of each month.

(E) The apportioned costs to each Type IV landfill may be altered periodically to add or subtract landfills from the program. A 30-day notice will be provided to each participating Type IV landfill and/or proposed additional landfill and a hearing will be held, upon request, by one of the affected parties or on the commission's own motion.

(3) A Type IV landfill operator who is delinquent in making the monthly payment shall immediately halt acceptance of waste in enclosed containers or enclosed vehicles and may also be subject to other penalties allowable under state law.

(4) Stationary compactors permitted in accordance with §330.25 of this title (relating to Requirements for Stationary Compactors) and municipal transporter routes permitted in accordance with §330.32 of this title are exempt from the requirements of paragraphs (1) - (3) of this section. However, the landfill operator shall obtain from the transporter a hauler trip ticket for a municipal transporter route or stationary compactors, as appropriate, prior to allowing discharge of the material at the landfill. These trip tickets must be maintained as a part of the operating record.

§330.136. Disposal of Special Wastes.

(a) The acceptance and/or disposal of a special waste as defined in §330.2 of this title (relating to Definitions) which is not specifically identified in subsections (b) or ©) of this section, or in §330.137 of this title (relating to Disposal of Industrial Wastes), requires prior written approval from the executive director.

(1) Approvals will be waste-specific and/or site-specific and will be granted only to appropriate facilities operating in compliance with this chapter.

(2) Requests for approval to accept special wastes must be submitted by the generator to the executive director or to a facility with an approved plan and must include, but are not limited to, the following:

(A) a complete description of the chemical and physical characteristics of each waste, a statement as to whether or not each waste is a Class 1 industrial waste as defined in §330.2 of this title, and the quantity and rate at which each waste is produced and/or the expected frequency of disposal;

(B) an operational plan containing the proposed procedures for handling each waste and listing required protective equipment for operating personnel and on-site emergency equipment; and

(C) a contingency plan outlining responsibility for containment and cleanup of any accidental spills occurring during the delivery and/or disposal operation.

(3) A vacuum truck, as used in this section, refers to any vehicle which transports liquid waste to a solid waste disposal or processing facility. A vacuum truck must transport liquid waste to a landfill that has a sludge stabilization and solidification process or to a Type V processing facility for sludge, grease trap, or grit trap waste. The owner or operator shall submit written notification to the executive director of the liquids-processing activity as required in §330.8 of this title (relating to Notification Requirements).

(4) The executive director may authorize the receipt of special waste with a written concurrence from the owner or operator; however, the facility operator is not required to accept the waste.

(5) The executive director may revoke an authorization to accept special waste if the owner or operator does not maintain compliance with these rules or conditions imposed in the authorization to accept special waste.

(b) Receipt of the following special wastes does not specifically require written authorization for acceptance provided the waste is handled in accordance with the noted provisions for each waste.

(1) Special wastes from health care related facilities which have not been treated in accordance with the procedures specified in Subchapter Y of this chapter (relating to Medical Waste Management) must not be accepted at a municipal solid waste landfill facility (MSWLF) unless authorized in writing by the executive director. The executive director may provide this authorization when a situation exists which requires disposal of untreated wastes in order to protect the human health and the environment from the effects of a natural or man-made disaster.

(2) Dead animals and/or slaughterhouse waste may be accepted at any MSWLF facility without further approval from the executive director provided the carcasses and/or slaughterhouse waste are covered by three feet of other solid waste or at least two feet of earthen material immediately upon receipt.

(3) Regulated asbestos-containing material (RACM) as defined in 40 Code of Federal Regulations §61 may be accepted at a Type I or Type I-AE MSWLF facility in accordance with subparagraphs (A) - (I) of this paragraph provided the MSWLF facility has been authorized to accept RACM. The facility operator proposing to accept RACM shall provide written notification to the executive director of the intent to accept RACM.

(A) To receive authorization to accept RACM, the owner or operator shall dedicate a specific area or areas of the landfill to receive RACM and shall provide written notification to the executive director of the area or areas to be designated for receipt of RACM.

After initial authorization to receive RACM is issued, additional areas may be designated by providing written notice to the executive director.

(B) The location of the area designated to receive the RACM must be surveyed and marked by a registered professional land surveyor and identified on a current site diagram which is maintained at the landfill. A copy of the current site diagram identifying the RACM area must be submitted to the executive director immediately upon completion of the diagram. The operator shall maintain a record of each load of RACM accepted as to its location, depth, and volume of material.

(C) Upon closure of the MSWLF unit which accepted RACM, a specific notation that the facility accepted RACM must be placed in the deed records for the facility with a diagram identifying the RACM disposal areas. Concurrently, a notice of the deed recordation and a copy of the diagram identifying the asbestos disposal areas must be submitted to the executive director.

(D) Delivery of the RACM to the MSWLF unit must be coordinated with the on-site supervisor so the waste will arrive at a time it can be properly handled and covered.

(E) RACM must only be accepted at the facility in tightly closed and unruptured containers or bags or must be wrapped with at least six-mil polyethylene.

(F) The bags or containers holding the RACM must be placed below natural grade level. Where this is not possible or practical, provisions must be made to ensure that the waste will not be subject to future exposure through erosion or weathering of the intermediate and/or final cover. RACM which is placed above natural grade must be located in the MSWLF unit such that it is, at closure of the MSWLF unit, not less than 20 feet from any final side slope of the unit and must be at least ten feet below the final surface of the unit.

(G) The bags or containers holding the RACM must be carefully unloaded and placed in the final disposal location. The RACM must be covered immediately with 12 inches of earthen material or three feet of solid waste containing no asbestos. Care must be exercised in the application of the cover so that the bags or containers are not ruptured.

(H) A contingency plan in the event of accidental spills (e.g., ruptured bags or containers) shall be prepared by the owner or operator prior to accepting RACM. The plan must specify the responsible person(s) and the procedure for the collection and disposal of the spilled material.

(I) RACM which has been designated as a Class 1 industrial waste may be accepted by a Type I municipal solid waste landfill authorized to accept RACM provided the RACM waste is handled in accordance with the provisions of this paragraph and the landfill operator complies with the provisions of §330.137(g) - (i) of this title (relating to Disposal of Industrial Wastes).

(4) Nonregulated asbestos-containing materials (non-RACM) may be accepted for disposal at any municipal solid waste landfill provided the wastes are placed on the active

working face and covered in accordance with this chapter. Under no circumstances may any material containing non-RACM be placed on any surface or roadway which is subject to vehicular traffic or disposed of by any other means by which the material could be crumbled into a friable state.

(5) Empty containers which have been used for pesticides, herbicides, fungicides, or rodenticides must be disposed of in accordance with subparagraphs (A) and (B) of this paragraph.

(A) These containers may be disposed of at any landfill provided that:

(i) the containers are triple-rinsed prior to receipt at the landfill;

(ii) the containers are rendered unusable prior to or upon receipt at the landfill; and

(iii) the containers are covered by the end of the same working day they are received.

(B) Those containers for which triple-rinsing is not feasible or practical (e.g., paper bags, cardboard containers) may be disposed of under the provisions of paragraph (6) of this subsection or in accordance with §330.137 of this title, as applicable.

(6) Municipal hazardous waste from a conditionally exempt small quantity generator (CESQG) may be accepted at a Type I municipal solid waste landfill without further approval from the executive director provided the amount of waste does not exceed 220 pounds (100 kilograms) per month per generator, and provided the landfill owner or operator authorizes acceptance of the waste.

(7) Sludge, grease trap waste, grit trap waste, or liquid wastes from municipal sources can be accepted at a Type I municipal solid waste landfill for disposal only if the material has been, or is to be, treated or processed and the treated/processed material has been tested, in accordance with Test Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication Number SW-846), as amended, and is certified to contain no free liquids. Prior to treatment or processing of this waste at the landfill, the owner or operator shall submit written notification to the executive director of the liquids processing activity as required in §330.8 of this title.

(c) Used oil filters from internal combustion engines must not be intentionally and knowingly accepted for disposal at landfills permitted under this chapter except as provided in paragraphs (1) and (2) of this subsection.

(1) Used oil filters must not be offered for disposal by a generator and/or be intentionally and knowingly accepted for landfill disposal unless the filter has been:

(A) crushed to less than 20% of its original volume to remove all free-flowing used oil; or

(B) processed by a method other than crushing to remove all free-flowing used oil. A filter is considered to have been processed if:

(i) the filter has been separated into component parts and the free-flowing used oil has been removed from the filter element by some means of compression in order to remove free-flowing used oil;

(ii) the used filter element of a filter consisting of a replaceable filtration element in a reusable or permanent housing has been removed from the housing and pressed to remove free-flowing used oil; or

(iii) the housing is punctured and the filter is drained for at least 24 hours.

(2) Used oil filters (to include filters which have been crushed and/or processed to remove free-flowing used oil) must not be offered for landfill disposal by any non-household generator and must not be intentionally or knowingly accepted by any landfill permitted and regulated under this chapter.

§330.137. Disposal of Industrial Wastes.

(a) All Class 1 industrial solid waste is required to be manifested. Owners or operators of municipal solid waste landfill (MSWLF) facilities shall not accept such wastes without prior written approval from the executive director and specific authorization in the permit.

(b) Wastes which are Class 1 only because of asbestos content may be accepted at any Type I or Type I-AE MSWLF facility which is authorized to accept regulated asbestos-containing material (RACM) as stated in §330.136(b)(3)(I) of this title (relating to Disposal of Special Wastes). Authorization to accept this waste is implied in the authorization to accept RACM unless the acceptance of industrial wastes is prohibited by the permit. All Class 1 industrial asbestos wastes must be manifested and the owner or operator of the MSWLF facility shall comply with the requirements of subsections (f) - (h) of this section.

(c) Unless the facility permit authorizes the acceptance of a specified type of Class 1 industrial waste, an authorization to accept specific types of Class 1 wastes will be waste-specific and site-specific and will be granted only to appropriate facilities that are operating in compliance with this chapter. Requests for authorization to accept Class 1 solid wastes must be submitted in writing to the executive director and must include, but are not limited to, the following:

(1) a complete description of the chemical and physical characteristics of the waste in accordance with §335.587 of this title (relating to Waste Analysis) , a statement as to whether or not the waste is a hazardous waste as defined in §330.2 of this title (relating to Definitions), and the quantity and rate at which the waste is produced and/or the expected frequency of disposal;

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(2) an operational plan containing the proposed procedures for handling the waste and a listing of required protective equipment for operating personnel and on-site emergency equipment. This plan must become a part of the site operating plan; and

(3) a written contingency plan meeting the requirements of §335.589 of this title (relating to Contingency Plan). This plan shall become a part of the site operating plan.

(d) Class 1 industrial solid waste other than asbestos-containing waste must not be placed above the surrounding natural ground surface elevation. Class 1 industrial solid waste which is Class 1 only because of asbestos content must be managed in accordance with the provisions of §330.136(b)(3) of this title (relating to Disposal of Special Wastes).

(e) Unless specifically authorized by the facility permit, a Type I MSWLF facility permitted after October 9, 1993, may not accept Class 1 industrial nonhazardous wastes in excess of 20% of the total amount of waste (not including Class 1 wastes) accepted during the current or previous year. The amount of waste may be determined by volume or by weight, but the same unit of measure must be used for each year, unless a variance is authorized by the executive director.

(f) Any authorization to accept Class 1 waste is subject to the site operating in compliance with these rules and any specific conditions required under any letter(s) of authorization. Failure to operate the site in compliance with these rules or any special conditions imposed by the executive director may result in revocation of the authorization to accept a Class 1 waste.

(g) All shipments of Class 1 waste must be accompanied by a manifest (waste-shipping control ticket) as required by the commission. The facility operator or a designated representative shall sign the manifest for any authorized shipments of Class 1 waste. The facility operator shall not accept or sign for shipments of Class 1 waste for which the authorization to accept has not been granted by the executive director or has not been authorized by permit provisions. The facility operator shall retain the disposal facility copy of the manifest for a period of three years. This time period is automatically extended if any enforcement action involving the owner, operator, or MSWLF facility is initiated or pending by the executive director.

(h) A facility which accepts any Class 1 waste must submit to the executive director a written report of Class 1 waste received. This report must be submitted no later than the 25th day of the month following the month in which the waste was received. Reports must be submitted on forms provided by the commission and must include all information required. Monthly reports must be submitted by facilities which have received Class 1 wastes including those months in which no Class 1 waste is received at the facility unless an exception is granted by the executive director. Failure to submit the reports required by this subsection in a timely manner is a violation of these rules.

(i) Class 2 industrial solid waste, except special wastes as defined in §330.2 of this title , may be accepted at any Type I or Type I-AE municipal solid waste landfill provided the acceptance of this waste does not interfere with facility operation.

(j) Class 3 industrial solid waste may be disposed of at any municipal solid waste landfill provided the acceptance of this waste does not interfere with facility operation.

§330.138. Visual Screening of Deposited Waste.

Visual screening of deposited waste materials at a municipal solid waste facility must be provided by the owner or operator for the facility where the executive director determines that screening is necessary or where permit or design requirements so dictate.

§330.139. Contaminated Water Discharge.

The owner or operator of a MSW facility shall not discharge contaminated water without specific written authorization.

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