ATTACHMENT 17

P.O. Box 1088

REDUCE REUSE RECYCLE
SOLID WASTE SERVICES

Austin, Texas 78767

April 1, 2002

Ms. Ada Lichaa, Team Leader
Mail Code 124
Texas Natural Resource Conservation Commission
MSW Permits Section
Waste Permits Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Solid Waste-Travis County- TNRCC Region II
City of Austin FM 812 Landfill – MSW Permit # 360-A
Groundwater Monitoring (MSW Mail Log Nos. 7088, and 02-974)

Dear Ms. Lichaa,

Thank you for your letter dated 15 February 2002 concerning the second and third quarter 2001 Groundwater Monitoring Reports for the FM 812 Landfill, Travis County, Texas. The purpose of this letter is respond to TNRCC comments and to continue a constructive dialogue ensuring that the FM 812 Landfill is in compliance with TNRCC MSW regulations. The attached responses to the items discussed in the 15 February letter are based on conversations with the consultant that has been performing groundwater monitoring, Roy F. Weston, Inc. (WESTON®) and with Arten Avakian during the Monday 4 March 2002 meeting at the FM 812 Landfill. Please review the following responses.

1. *Delayed Submittal of report for August 2001 event*

The City of Austin (the City) concurs with the comment and will endeavor to submit future groundwater monitoring reports within 45 days of the sampling event. If this timetable cannot be met, the TNRCC will be provided with advance notice of the delay and the anticipated timetable.

2. *Fourth-quarter 2001 monitoring event*

The fourth quarter groundwater monitoring event was conducted in December. The report has been received by the City and has been submitted to the TNRCC.

c. Assessment monitoring for MW-10

The City and WESTON agree that nitrate concentrations in MW-10 are higher than in other upgradient and downgradient wells. Based on our discussion during the meeting on 4 March 2002, and to move forward in a proactive manner, the City initiated assessment monitoring at MW-10 during the first semiannual 2002 detection monitoring event, which was performed the week of 11 March 2002. The nitrate data from the first quarter 2002 detection monitoring event will be evaluated and any statistically significant increase will be reported as appropriate.

c. (continued) seepage in the vicinity of MW-1

WESTON and TNRCC representatives briefly examined the slope between the north end of the landfill and Onion Creek during the meeting on 4 March 2002 and did not observe any visible evidence of seepage in the vicinity of MW-10.

c. (continued) current leachate collection practices

There is a linear array of operating leachate extraction wells trending east-west and located immediately upslope (south) of MW-10. These wells pump leachate from within the waste mass to the surface, where the leachate is piped by gravity flow to leachate cleanouts at the base of the Subtitle D cell. Leachate is periodically pumped from the cleanouts and is re-circulated by application onto the surface of the landfill. The frequency of leachate removal is variable and dependent on weather conditions, but is approximately weekly, with approximately 4000 gallons of leachate removed and re-circulated per event.

8. Statistical methods

a. Background period

Based on our conversation at the 4 March 2002 meeting, the City will perform a statistical evaluation that compares the data collected before and after the December 1998 monitoring event for upgradient and downgradient monitoring points. The City will then consult with the TNRCC to determine the usability of the data collected prior to the December 1998 event.

b. Alternatives tolerance intervals

The TNRCC suggested statistical methods (e.g. prediction intervals) that may be better suited to the purpose of monitoring for releases from the landfill while not resulting in "false positive statistical conclusions." The City and our consultant will evaluate the statistical options available based on the applicable regulations, TNRCC requirements, and those listed in the FM 812 Landfill GWSAP. However, we understand that the comparison to 95% upper tolerance limits (UTLs) included in recent monitoring reports is acceptable.

Investigation Comments :

INTRODUCTION

On June 23, 2003, I contacted Mr. Conley LeLoux, Landfill/Brush Manager, and informed him of my intent to conduct a routine investigation at the City of Austin Landfill. The investigation was scheduled for June 26, 2003, at 10:00.

INVESTIGATION SUMMARY

On June 26, 2003, I went to the City of Austin Landfill to conduct a routine investigation. I arrived at the facility at approximately 10:00 and met with Mr. LeLoux, Mr. Carnell Wilson, Landfill Supervisor, and Mr. Hani Michel, Supervising Engineer. I then conducted an entrance interview. During the entrance interview I informed the City of Austin representatives of the purpose and format of my investigation. The City of Austin Landfill is a permitted Type 1 landfill, but is currently operating as a Type 4 landfill due to location restrictions regarding Austin Bergstrom International Airport.

During the file review portion of the investigation Mr. LeLoux informed me that the facility is operating Monday thru Friday 08:00 till 16:30 and is accepting approximately 2000 tons of waste per month. Mr. LeLoux informed me that the remaining landfill capacity is 2,622,120 cubic yards and the life expectancy is 68.3 years.

Leachate at the City of Austin Landfill is currently being recirculated. The leachate is applied only to cells with an approved Subtitle D liner system. Leachate sumps at the landfill are pumped until no more liquid can be extracted. Records of the amount of leachate pumped are kept in the landfill file.(See attachment) According to the City of Austin Landfill's Leachate and Contaminated Water Plan, "The landfill manager shall monitor the depth of leachate in the landfill to ensure that a dept of 30cm immediately on top of the flexible membrane liner (FML) is not exceeded." During the investigation Mr. LeLoux informed me that leachate levels are not monitored. According to 30 Tex. Admin. Code 330.111, "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." Therefore, a violation of 30 Tex. Admin. Code 330.111 has been alleged for the failure to monitor leachate levels.

The Austin Region is aware that a previous violation of 30 Tex. Admin. Code 330.111 was alleged in 1999 for failure to conduct groundwater monitoring according to the Groundwater Sampling and Analysis Plan. However, since the current violation has been alleged for the failure to follow the Leachate and Contaminated Water Plan, which is a different requirement, the violation will not result in TCEQ enforcement.

The City of Austin Landfill continues to exceed methane concentrations, which are defined in 30 Tex. Admin. Code 330.56(n), at the landfill boundary. As long as the methane gas concentrations at the landfill boundaries exceed regulatory limits, the site will be considered noncompliant. If methane concentrations are not controlled by the next routine investigation the City of Austin Landfill will be referred to the TCEQ enforcement division.

According to 30 Tex. Admin. Code 330.56(n)(3)(C), "within 60 days of detection, implement a remediation plan for the methane gas releases, place a copy of the plan in the operating record, provide a copy to the executive director and notify the executive director that the plan has been implemented." During the investigation it appeared that a remediation plan had not been implemented therefore, a violation of 30 Tex. Admin. Code330.56(n)(3)(C) has been alleged. Mr. LeLoux explained that they have had problems with their contracts, which have made the completion of the landfill gas extraction system difficult. During the investigation Mr. Michel provided a schedule for the installation of the gas extraction system.(See attachment) The final completion date for the gas extraction system has been set for January 16, 2004.

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TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 330	MUNICIPAL SOLID WASTE
SUBCHAPTER E	PERMIT PROCEDURES
RULE §330.56	**Attachments to the Site Development Plan**

(1) Owners or operators of all MSWLF units shall ensure that:

(A) the concentration of methane gas generated by the facility does not exceed 25% of the lower explosive limit for methane in facility structures (excluding gas control or recovery system components); and

(B) the concentration of methane gas does not exceed the lower explosive limit for methane at the facility property boundary. For purposes of this section, "lower explosive limit" means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 25 degrees Celsius and atmospheric pressure.

(2) Owners or operators of all MSWLF units shall implement a routine methane monitoring program to ensure that the standards of paragraph (1) of this subsection are met.

(A) The type and frequency of monitoring shall be determined based on the following factors.

(i) soil conditions;

(ii) the hydrogeologic conditions surrounding the facility;

(iii) the hydraulic conditions surrounding the facility;

(iv) the location of facility structures and property boundaries; and

(v) the location of any utility lines or pipelines that cross the MSWLF facility.

(B) The minimum frequency of monitoring shall be quarterly.

(3) If methane gas levels exceeding the limits specified in paragraph (1) of this subsection are detected, the owner or operator shall:

(A) immediately take all necessary steps to ensure protection of human health and notify the executive director, local and county officials, emergency officials, and the public;

(B) within seven days of detection, place in the operating record the methane gas levels detected and a description of the steps taken to protect human health; and

(C) within 60 days of detection, implement a remediation plan for the methane gas releases, place a copy of the plan in the operating record, provide a copy to the executive director and notify the executive director that the plan has been implemented. The plan shall describe the nature and extent of the problem and the proposed remedy. After review, the executive director may require additional remedial measures.

(4) The executive director may establish alternative schedules for demonstrating compliance with paragraphs (2) and (3) of this subsection.

(5) The gas monitoring and control program shall continue for a period of thirty years after the final closure of the facility or until the owner or operator receives written authorization to reduce the program. Authorization to reduce gas monitoring and control shall be based on a demonstration by the owner or operator that there is no potential for gas migration beyond the property boundary or into on-site structures. Demonstration of this proposal shall be supported by data collected and additional studies as required.

(6) Gas monitoring and control systems shall be modified as needed to reflect changing on-site and adjacent land uses. Post-closure land use at the site shall not interfere with the function of gas monitoring and control systems. Any underground utility trenches that cross the MSWLF facility boundary shall be vented and monitored regularly.

(7) A landfill gas management plan shall be prepared that includes the following:

(A) a description of how landfill gases will be managed and controlled;

(B) a description of the proposed system(s), including installation procedures and time lines for installation, monitoring procedures, and procedures to be used during maintenance; and

(C) a backup plan to be used if the main system breaks down or becomes ineffective.

(8) Perimeter monitoring network shall be installed in accordance with the following provisions:

(A) initial monitoring at small MSWLFs and larger MSWLFs that have no habitable structures within 3,000 feet of the waste placement boundary may consist of perimeter subsurface monitoring around the perimeter of the site using portable equipment and probes. If test results show the presence of methane gas above 10% of the lower explosive limit, a permanent monitoring system shall be installed; and

(B) permanent monitoring systems shall be installed on all other MSWLFs. Technical guidance on monitoring systems may be issued by the executive director.

(9) The monitoring network design shall include provisions for monitoring on-site structures, including, but not limited to, buildings, subsurface vaults, utilities, or any other areas where potential gas buildup would be of concern.

(10) All monitoring probes and on-site structures shall be sampled for methane during the monitoring period. Sampling for specified trace gases may be required by the executive director when there is a possibility of acute or chronic exposure due to carcinogenic or toxic compounds.

(11) Monitoring frequency shall be determined as follows.

(A) As a minimum, quarterly monitoring is required. The executive director may require more frequent monitoring based upon the factors listed in this section. When more frequent monitoring is necessary, the executive director shall notify the owner or operator.

(B) More frequent monitoring shall also be required at those locations where results of monitoring indicate that landfill gas migration is occurring or is accumulating in structures.

(o) Attachment 15 - leachate and contaminated water plan.

(1) The plan shall provide the details of the storage, collection, treatment and disposal of the contaminated water, leachate and/or gas condensate from the leachate collection system and/or the gas monitoring and collection system, where used. Contaminated water is water which has come into contact with waste, leachate or gas condensate. This plan shall include the following information:

(A) estimated rate of leachate removal;

(B) capacity of sumps;

(C) pipe material and strength;

(D) pipe network spacing and grading;

(E) collection sump materials and strength;

(F) drainage media specifications and performance; and

(G) demonstration that pipes and perforations will be resistant to clogging and can be cleaned or rehabilitated.

(2) Leachate and gas condensate may be disposed of in a MSWLF unit that is designed and constructed with a composite liner system and a leachate collection system that meets the requirements of §330.200(a)(2) of this title (relating to Design Criteria). Contaminated surface water and groundwater may not be placed in or on the MSWLF unit.

(3) Leachate, gas condensate, contaminated surface water, and contaminated groundwater shall be disposed of at an authorized facility or as authorized by a National Pollutant Discharge Elimination System permit.

(4) On-site collection ponds and impoundments for contaminated water shall be lined with an approved liner.

Source Note: The provisions of this §330.56 adopted to be effective October 9, 1993, 18 TexReg 4023; amended to be effective March 21, 2000, 25 TexReg 2380; amended to be effective September 1, 2003, 28 TexReg 6890

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TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 330	MUNICIPAL SOLID WASTE
SUBCHAPTER H	GROUNDWATER PROTECTION DESIGN AND OPERATION
RULE §330.200	**Design Criteria**

(a) New municipal solid waste landfill facility (MSWLF) units and lateral expansions shall be constructed in accordance with one of the two following provisions approved by the executive director:

(1) a design that ensures that the concentration values listed in Table 1 of this section will not be exceeded in the uppermost aquifer at the relevant point of compliance, as specified by the executive director under subsection (d) of this section; or

(2) a composite liner, as defined in subsection (b) of this section, and a leachate collection system that is designed and constructed to maintain less than a 30-cm depth of leachate over the liner.

(b) For purposes of this section, "composite liner" means a system consisting of two components; the upper component must consist of a minimum 30-mil flexible membrane liner (FML) and the lower component must consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. FML components consisting of high density polyethylene (HDPE) shall be at least 60-mil thick. The FML component must be installed in direct and uniform contact with the compacted soil component.

(c) When approving a design that complies with subsection (a)(1) of this section, the executive director may consider at least the following factors:

(1) the hydrogeologic characteristics of the facility and surrounding land;

(2) the climatic factors of the area; and

(3) the volume and physical and chemical characteristics of the leachate.

(d) For purposes of this section, the relevant point of compliance is defined in §330.2 of this title (relating to Definitions). In determining the relevant point of compliance, the executive director may consider at least the following factors:

(1) the hydrogeologic characteristics of the facility and surrounding land;

(2) the volume and physical and chemical characteristics of the leachate;

(3) the quantity, quality, and detection of flow of groundwater;

(4) the proximity and withdrawal rate of the groundwater users;

(5) the availability of alternative drinking water supplies;

(6) the existing quality of the groundwater, including other sources of contamination and their cumulative impacts on the groundwater and whether groundwater is currently used or reasonably expected to be used for drinking water;

(7) public health, safety, and welfare effects; and

(8) practicable capability of the owner or operator.

Attached Graphic

(e) Type IV landfills authorized to dispose of brush and demolition materials only shall meet one of the following groundwater protection requirements listed in paragraph (1) or (2) and in addition all Type IV sites shall have soils and liner quality control plan as described in paragraph (3) of this subsection.

(1) There shall exist at least four feet of in-situ soil between the deposited waste and groundwater. This in-situ soil shall constitute an in-situ liner and shall meet all the physical properties for a constructed liner as detailed in §330.205 (c)(6) of this title (relating to Soil and Liner Quality Control Plan). In-situ liners shall not exhibit primary or secondary physical features such as jointing, fractures, bedding planes, solution cavities, root holes, desiccation shrinkage cracks etc., that have a coefficient of permeability greater than 1×10^{-7} cm/sec.

(2) There shall be at least a three-foot thick compacted clay liner between the deposited waste and groundwater. The constructed liner shall meet all the criteria detailed in §330.205 of this title (relating to Soil and Liner Quality Control Plan) and shall at a minimum have one foot of protective cover overlying the compacted liner after all quality control testing and final thickness determinations are complete.

(3) All Type IV landfill permits shall include a soils and liner quality control plan (SLQCP) as required by §330.205 of this title (relating to Soil and Liner Quality Control Plan) and should follow the latest technical guidelines of the executive director. The owner or operator shall submit soils and liner evaluation reports (SLERs) in accordance with §330.206 of this title (relating to Soils and Liner Evaluation Report (SLER) and Flexible Membrane Liner Evaluation Report (FMLER)).

Source Note: The provisions of this §330.200 adopted to be effective October 9, 1993, 18 TexReg 4023

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TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 330	MUNICIPAL SOLID WASTE
SUBCHAPTER A	GENERAL INFORMATION
RULE §330.5	**General Prohibitions**

(a) In addition to the requirements of §330.4 of this title (relating to Permit Required), a person may not cause, suffer, allow, or permit the collection, storage, transportation, processing, or disposal of municipal solid waste, or the use or operation of a solid waste facility to store, process, or dispose of solid waste, or to extract materials under the Texas Solid Waste Disposal Act, §361.092, in violation of the Texas Solid Waste Disposal Act, or any regulations, rules, permit, license, order of the commission or in such a manner so as to cause:

(1) the discharge or imminent threat of discharge of municipal solid waste into or adjacent to the waters in the state without obtaining specific authorization for such discharge from the commission;

(2) the creation and maintenance of a nuisance; or

(3) the endangerment of the human health and welfare or the environment.

(b) Municipal solid waste landfill facilities (MSWLFs) failing to satisfy this chapter, unless exempted by this chapter, are considered open dumps for purposes of state solid waste management planning under the Resource Conservation and Recovery Act (RCRA) and are prohibited under RCRA, §4005(a).

(c) A person may not cause, suffer, allow, or permit the dumping of municipal solid waste without the written authorization of the commission.

(d) The open burning of solid waste, except for the infrequent burning of waste generated by land-clearing operations, agricultural waste, silvicultural waste, diseased trees, or emergency cleanup operations as authorized by the commission or executive director as appropriate, is prohibited at any municipal solid waste landfill. The operation of any type of air-curtain destructor (trench burner), other than for the exceptions noted in the previous sentence, is prohibited.

(e) The following waste are prohibited from disposal in any municipal solid waste facility.

(1) A lead acid storage battery shall not be intentionally or knowingly offered by a generator or transporter for disposal at a municipal solid waste landfill or incinerator, and/or shall not be intentionally or knowingly accepted for disposal at any municipal solid waste landfill or incinerator permitted under this chapter.

(A) Each battery improperly disposed of constitutes a separate violation and offense.

(B) A person who violates the provisions of this paragraph is subject to the criminal and/or civil penalties found in the Texas Solid Waste Disposal Act, as amended.

(2) Do-it-yourself (DIY) used motor vehicle oil shall not be intentionally or knowingly offered by a generator or transporter for disposal at a municipal solid waste landfill or municipal incinerator, either by itself or mixed with other solid waste, and/or shall not be intentionally or knowingly be accepted for disposal at a municipal solid waste landfill or municipal incinerator permitted under this chapter.

(A) It is an exception to this subsection if the mixing or commingling of used-oil with solid waste that is to be

disposed of in a landfill is incidental to, and the unavoidable result of, the mechanical shredding of motor vehicles, appliances, or other items of scrap, used, or obsolete metals.

(B) A person who violates the provisions of this paragraph is subject to the criminal and/or civil penalties found in the Texas Solid Waste Disposal Act, as amended.

(3) Used-oil filters from internal combustion engines shall not be intentionally or knowingly accepted for disposal at landfills permitted under this chapter except as provided in §330.136 of this title (relating to Disposal of Special Wastes).

(4) Whole used or scrap tires shall not be accepted for disposal or disposed of in any municipal solid waste landfill.

(5) Refrigerators, freezers, air conditioners, and any other items containing chlorinated fluorocarbon (CFC) shall not be knowingly accepted for disposal or disposed of in any municipal solid waste landfill unless all the CFC contained in that item is captured and sent to an approved CFC disposal site or recycling facility. If the CFC is not removed from the item, then the whole item must be sent to an approved CFC disposal site. Such items that enter the facility with ruptured lines or holes in the CFC unit shall not be accepted unless the generator or transporter provides written certification that the CFC has been evacuated from the unit and that it was not knowingly allowed to escape into the atmosphere.

(6) Liquid waste as defined in §330.2 of this title (relating to Definitions) and as described below shall not be disposed of in any MSWLF unit.

(A) Bulk or noncontainerized liquid waste shall not be accepted for disposal or disposed of in a municipal solid waste landfill unless:

(i) the waste is household waste other than septic waste; or

(ii) the waste is leachate or gas condensate derived from a landfill and the landfill unit is designed and constructed with a composite liner and a leachate collection system. The owner or operator shall make the procedure for disposal of the leachate or gas condensate a part of the site operating plan.

(B) Containers holding liquid waste shall not be accepted for disposal or disposed of in a municipal solid waste landfill unless:

(i) the container is a small container similar in size to that normally found in household waste;

(ii) the container is designated to hold liquids for use other than storage; or

(iii) the waste is household waste.

(7) Regulated hazardous waste as defined in §330.2 of this title (relating to Definitions) shall not be accepted at a municipal solid waste facility.

(8) Polychlorinated biphenyls (PCB) wastes, as defined under 40 Code of Federal Regulations, Part 761, shall not be accepted for disposal or disposed of in a municipal solid waste facility.

(f) MSWLFs receiving sewage sludge and failing to satisfy the criteria of this chapter violate the Federal Clean Water Act, §309 and §405(e).

(g) Contact between solid waste and unconfined waters, which are subject to free exchange with groundwater or surface water, is prohibited.

(h) The drilling of any test borings, for any reason, through previously deposited waste or cover material without prior written authorization from the executive director is prohibited.

Source Note: The provisions of this §330.5 adopted to be effective October 9, 1993, 18 TexReg 4023.

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ATTACHMENT 19

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

April 27, 2000

Mr. Donald W. Ward, P.E.
Solid Waste Services
City of Austin
P.O. Box 1088
Austin, Texas 78767-1088

Re: Municipal Solid Waste, Travis County
City of Austin FM 812 Landfill, Permit No. MSW 360-A
Status of Landfill
Tracking Number 1687

Dear Mr. Ward:

This is in response to your letter dated March 28, 2000 requesting clarification of the status of the City of Austin FM 812 Landfill. This Type I municipal solid waste landfill (MSWLF) is located within close proximity of the Austin-Bergstrom International Airport. Your letter indicates that a meeting was held between City staff and Texas Natural Resource Conservation Commission (TNRCC) staff in February 1999 to discuss the operation of the landfill subsequent to the opening of the airport. Unfortunately, it appears that your interpretation of the items discussed during the meeting is incorrect. The landfill cannot continue to operate under the current permit by accepting non-putrescible waste Type IV waste, asbestos and low level contaminated soil.

The landfill is currently not in compliance with the location restriction in Title 30 Texas Administrative Code (TAC) Section 330.300, Airport Safety. This landfill must not operate as a Type I landfill, and if it is desired to remain in operation, must convert to a Type IV. You must submit a permit modification application to address the requirements of a Type IV landfill in 30 TAC Section 330.41(e). Among other requirements, this Section references regulations that requires procedures to be implemented to preclude the acceptance of putrescible and household wastes in a Type IV landfill. Additionally, this Section specifically does not reference 30 TAC Sections 330.136 and 330.137 relating to the acceptance of special waste and industrial solid waste. A type IV landfill is not authorized to accept these wastes, such as asbestos and contaminated soils. Please note that additional requirements for conversion to a Type IV facility are found in 30 TAC Section 305.70(g)(24).

We will be more than willing to provide assistance to you in answering any questions you may have relating to the preparation and submittal of a permit modification for conversion to a Type IV. Should you have any questions regarding this matter, please do not hesitate to contact Mr. George P. Hartmann, P.E. of this office at (512) 239-3419.

Sincerely,

Burgess H. Stengl

Burgess H. Stengl, Team Leader
MSW Permits Team III
Municipal Solid Waste Permits Section
Waste Permits Division
Texas Natural Resource Conservation Commission

BHS/gph

From: George Hartmann
To: WM2PO.DBURNETT, LEGAL.LEGALPO.IMONTELO, EASTDOM.AUSPO.BKALDA, EASTDOM.AUSPO.PREEH, BSTENGL, MGRAEBER, JALLRED, LGAREY, DZARAGOZ
Date: 5/10/00 2:55PM
Subject: City of Austin, MSW 360-A

We met with the City this afternoon to discuss plans that they have to operate the FM 812 landfill. They will submit plans to identify the types of wastes that they will and will not accept, and plans to exclude putrescible wastes.

They want to keep their permit as a Type I facility accepting C&D waste, brush, rubbish, special waste contaminated soil, and asbestos waste. Per their coordination with FAA, they will not accept putrescible waste and they will continue to implement bird control measures. They will seek a sequence of development change permit modification to build Type IV waste cells and finish up the existing Subtitle D lined cell for asbestos waste and other nonputrescible wastes. They will not convert to a Type IV, as they want to maintain authorization to accept special waste contaminated soils and asbestos waste. This appears to meet the rules and is acceptable.

They will send in a letter to outline these items and the necessary plans to supplement their permit Site Operating Plan and Site Development Plan. If adequate, we will acknowledge their plans for these action items, and we can clarify our April 27, 2000 letter so they can continue to operate and take the special waste contaminated soils and asbestos.

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TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 330	MUNICIPAL SOLID WASTE
SUBCHAPTER D	CLASSIFICATION OF MUNICIPAL SOLID WASTE FACILITIES
RULE §330.41	**Types of Municipal Solid Waste Sites**

(a) Classification of municipal solid waste facilities (MSWLF). The commission has classified all municipal solid waste facilities according to the method of processing or disposal of municipal solid waste. Subject to the limitations in §330.136 of this title (relating to Disposal of Special Wastes) and §330.137 of this title (relating to Disposal of Industrial Wastes), and with the written approval of the executive director, an MSWLF may also receive special wastes, including Class I industrial nonhazardous solid waste and hazardous waste from conditionally exempt small quantity generators, if properly handled and safeguarded in the landfill facility.

(b) Municipal solid waste facility-Type I. A Type I facility shall be considered to be the standard landfill for the disposal of municipal solid waste. All solid waste deposited in a Type I facility shall be compacted and covered at least daily. The commission may authorize the designation of special-use areas for processing, storage, and disposal or any other functions involving solid waste. The operational and design standards prescribed in §§330.50-330.65 of this title (relating to Permit Procedures), §§330.111-330.139 of this title (relating to Operational Standards for Solid Waste Land Disposal Sites), §§330.150-330.159 of this title (relating to Operational Standards for Solid Waste Processing and Experimental Sites), §§330.200-330.206 of this title (relating to Groundwater Protection Design and Operation), §§330.230-330.242 of this title (relating to Groundwater Monitoring and Corrective Action), §§330.250-330.256 of this title (relating to Closure and Post-Closure), Chapter 330, Subchapter K of this title (relating to Closure, Post-Closure, and Corrective Action), Chapter 37, Subchapter R of this title (relating to Financial Assurance for Municipal Solid Waste Facilities), and §§330.300-330.305 of this title (relating to Location Restrictions), unless otherwise specified in §330.3(e) of this title (relating to Applicability), shall be followed. Those facilities meeting the requirements of §330.3(e) of this title shall be referred to as Type I-AE facilities and are exempt from all requirements pertaining to, but not limited to, §§330.200-330.206 and §§330.230-330.242 of this title (relating to Groundwater Protection Design and Operation and Groundwater Monitoring and Corrective Action, respectively). Type I Facilities that are authorized to operate a Type IV cell or trench shall operate the cell or trench in accordance with subsection (e) of this section.

(c) Municipal solid waste facility-Type II. Upon the effective date of this title, all Type II facilities, as defined in this subsection, shall meet and comply with the Type I standards contained in subsection (b) of this section, except as otherwise specified in §330.3(e) of this title (relating to Applicability). For the purpose of this section, a Type II facility is defined as: a facility or operation serving less than 5,000 persons or the population equivalent; receiving less than 12 1/2 tons of solid waste per day; compacted and covered on a frequency that will not result in any significant health problems; and operation not conducted within 300 yards of a public road.

(d) Municipal solid waste facility-Type III. Upon the effective date of this title, all Type III facilities, as defined in this subsection, shall meet and comply with the Type I standards contained in subsection (b) of this section, except as otherwise specified in §330.3(e) of this title (relating to Applicability). For the purpose of this section, a Type III facility is defined as: a facility or operation serving less than 1,500 persons or the population equivalent; receiving less than 3 3/4 tons of waste per day; and operation not conducted within 300 yards of a public road.

(e) Municipal solid waste facility-Type IV. A Type IV facility or operation may be authorized by the commission for the disposal of brush, construction-demolition waste, and/or rubbish that are free of putrescible and free of household wastes. A Type IV operation shall not be operated within 300 yards of a public road unless the executive director, after a site evaluation, determines that the proposed operation in the proposed location is acceptable. The minimum operational standards are prescribed in the applicable requests §§330.50-330.65 of this title (relating to Permit

Procedures), §§330.111-330.135 of this title (relating to Operational Standards for Solid Waste Land Disposal Sites), §§330.138-330.139 of this title (relating to Operational Standards for Solid Waste Land Disposal Sites), §§330.204-330.206 of this title (relating to Groundwater Protection Design and Operation), §330.239 of this title (relating to Groundwater Monitoring at Type IV Landfills), §330.251 of this title (relating to Closure Requirements for MSWLF Units That Stop Receiving Waste Prior to October 9, 1991, and MSW Sites), unless otherwise specified in §330.3(e) of this title (relating to Applicability). Waste shall be compacted and covered weekly unless another schedule is approved or required by the commission. Those facilities meeting the requirements of §330.3(e) of this title shall be referred to as Type IV-AE facilities and are exempt from §§330.200-330.206 and §§330.230-330.242 of this title (relating to Groundwater Protection Design and Operation and Groundwater Monitoring and Corrective Action, respectively).

(f) Municipal solid waste facility-Type V. Separate solid waste processing facilities are classified as Type V. These facilities shall encompass processing plants that transfer, incinerate, shred, grind, bale, compost, salvage, separate, dewater, reclaim, and/or provide other processing of solid waste. Operational standards are prescribed in §§330.150-330.159 of this title (relating to Operational Standards for Solid Waste Processing and Experimental Sites).

(g) Municipal solid waste facility-Type VI. A Type VI facility or operation may be authorized by the commission for a facility involving a new or unproven method of managing or utilizing municipal solid waste, including resource and energy recovery projects. The commission may limit the size of these facilities until the method is proven. The minimum operational standards are prescribed in §§330.150-330.159 of this title (relating to Operational Standards for Solid Waste Processing and Experimental Sites).

(h) Municipal solid waste facility-Type VII. A Type VII facility or operation may be authorized by the commission for the land management of sludges and/or similar wastes. Operational standards, depending on the particular waste, facility purpose, and method of operation (land application for beneficial use, land disposal to include landfilling and land treatment, etc.) are contained in Chapter 312 of this title (relating to Sludge Use, Disposal, and Transportation).

(i) Municipal solid waste facility-Type VIII. Facilities for the management of used or scrap tires are classified as Type VIII. Standards are prescribed in §§330.801-330.889 of this title (relating to Management of Whole, Used, or Scrap Tires).

(j) Municipal solid waste facility-Type IX. A closed disposal facility, an inactive portion of a disposal facility, or an active disposal facility, used for extracting materials for energy and material recovery or for gas recovery for beneficial use is classified as Type IX. Registration requirements are contained in §330.4 of this title (relating to Permit Required).

Source Note: The provisions of this §330.41 adopted to be effective October 9, 1993, 18 TexReg 4023; amended to be effective December 11, 1995, 20 TexReg 9897; amended to be effective March 21, 2000, 25 TexReg 2380

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TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 330	MUNICIPAL SOLID WASTE
SUBCHAPTER F	OPERATIONAL STANDARDS FOR SOLID WASTE LAND DISPOSAL SITES
RULE §330.133	**Landfill Cover**

(a) Daily cover. All landfills, with the exception of Type IV landfills, shall provide 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 shall cover the working face or active disposal area at least once every 24 hours. All Type IV facilities shall follow the requirements of this subsection except the rate of cover shall 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 shall provide intermediate cover. This intermediate cover shall be an additional six inches of well-compacted earthen material not previously mixed with garbage, rubbish, or other solid waste for a total of not less than 12 inches of cover. The intermediate cover shall be graded to prevent ponding of water. Run-off from areas which have received intermediate cover shall 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 Contaminated Water Treatment).

(c) Alternative material daily cover. Alternative material daily cover (ADC) may be allowed by permit provision or by modification in accordance with §305.70 of this title (relating to Municipal Solid Waste Class I Modifications).

(1) An ADC operating plan shall be included in the site development plan that includes the following:

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

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

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

(D) chemical composition of the material and the Material Safety Date 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 shall be submitted on a quarterly basis to the executive director 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 problems occur within four consecutive quarters of use, status reports will no longer be required.

(3) ADC shall 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)-(c) of this section if the owner/operator demonstrates that there are extreme seasonal climatic conditions that make meeting such requirements impractical.

(e) Final cover. Final cover for the landfill shall be in accordance with the site closure plan.

(f) Erosion of cover. Erosion of final or intermediate cover shall be repaired promptly by restoring the cover material, grading, compacting, and seeding it as necessary. Such periodic inspections and restorations are required during the entire operational life and for the post-closure maintenance period.

(g) Cover log. Each landfill shall keep a cover application log on site readily available for inspection by commission representatives and authorized agents or employees of local governments having jurisdiction. This log shall 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 log shall specify the area covered, the date cover was applied, and the thickness applied that date. Each entry shall be certified by the signature of the on-site supervisor that the work was accomplished as so stated in the log.

Source Note: The provisions of this §330.133 adopted to be effective October 9, 1993, 18 TexReg 4023.

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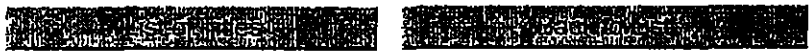

ATTACHMENT 21

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
MSW INSPECTION REPORT

MSW-	360A	Facility Name:	City of Austin	County Name:	Travis
Inspection Date:	January 10, 2000	TNRCC Investigator:	Ben Milford		

GENERAL INSPECTION DESCRIPTION / COMMENTS

Notification:
On January 3, 2000, I contacted Mr. Don Ward and Mr. Conley Leloux and notified them of the inspection scheduled for January 10, 2000. The inspection was scheduled for 9:00 a.m.

Comments:
Type 1-4 Landfill Checklist
17. Type 4/Enclosed Containers
Enclosed containers are not accepted at the City of Austin Landfill.

19. Operating Hours
The facility is open on Monday to Friday from 7:00 a.m. to 5:00 p.m. and on Saturday from 8:00 a.m. until 4:00 p.m.

35. Landfill Gas Control
The City of Austin is monitoring for landfill gasses according to their Landfill Gas Management Plan, and the reports and submittals are included in the operating record. The City is in compliance with this regulation, however, the gas concentration in one of the wells continues to exceeded the regulatory limit and is considered to be in violation of 330.56(n)(1)(B). See the Landfill Gas Checklist for details.

Site Development Plan Checklist
11. Waste Flow Calculation/Operating Life
The Federal Aviation Administration (FAA) required that the landfill be closed to the acceptance of putrescible waste prior to the Austin International Airport opening to commercial traffic. Therefore, the landfill closed on February 27, 1999, and re-opened on May 3, 1999. When they re-opened they began operating as a type 4 facility and are only accepting brush and construction debris. The permit states that the facility is planned to operate until the year 2010. At this time it has not been determined how the converting to a type 4 facility will affect site life.

Site Operating Plan Checklist
1. Category Function Descriptions
The Site Operating Plan states that four equipment operators shall be used at the facility. Mr. Leloux reported that 2 equipment operators are full-time, 1 is part-time, and others are brought in as needed. He stated that since opening as a Type IV site, the volume at the site has been very light. I informed Mr. Leloux that as long as he has four equipment operators available when needed, I would not allege a violation.

14. Cover
Mr. Leloux reported that when they started operating as a Type IV site, they began covering once a week as required at that type of facility.

Landfill Gas Checklist
8. Sampling Results within Regulatory Limits
Gas concentrations in probe GP-10 continues to exceed the lower explosive limit for methane. (See sample results attached from the January 3, 2000, sampling event.) This item will be considered to be an alleged violation.

9. Notification
Notification was made to adjacent property owners in a letter dated August 31, 1995. Don Ward and Richard McHale met with the TNRCC on August 22, 1995, regarding the methane gas detected that exceeded the explosive limits. (See attached letter from the TNRCC dated April 26, 1996, that resulted from the August 22, 1995, meeting.) A letter from the TNRCC Dated August 18, 1998, was sent to the City approving the Landfill Gas Assessment Report (LGAR) which was submitted August 20, 1997. (See the August 18, 1998, letter attached.)

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
MSW INSPECTION REPORT

MSW-	360A	Facility Name:	City of Austin	County Name:	Travis
Inspection Date:	January 10, 2000	TNRCC Investigator:	Ben Milford		

GENERAL INSPECTION DESCRIPTION/COMMENTS

12. Remediation Implemented IAW Approved Plan?
The gas collection system has been installed. The City is waiting for electricity to be run to the site to run the turbine.

13. TNRCC Spot Checks
Sampling was not conducted during this inspection. A copy of the results from the January 3, 2000, sampling is attached.

Asbestos Checklist
4. Transporter Address
The TNRCC manifests do not have a location for the transporter's address, however some of the manifests did have the address written on the form. I asked Mr. Leloux to continue to write the address somewhere on the manifest.

11. Does the map contain the quantity of ACWM?
The disposal area is a dedicated trench and will only be filled with ACWM.

16. Has a stationary source report been filed?
The stationary source report was submitted to the Texas Department of Health in a letter from the City of Austin dated June 6, 1989. (See letter attached.) Also attached is correspondence showing approvals and clarification in regards to the asbestos disposal at the site.

Resolved Violation from Ground Water Inspection on August 5, 1999
A Notice of Violation letter was sent to the City of Austin dated August 16, 1999. The letter alleged a violation of 330.233(b)/330.111, because the formation water from ground water sampling was not collected during purging or bailing according to the Ground Water Sampling and Analysis Plan (GWSAP). On August 23, 1999, HBC Engineering, Inc., the City of Austin's Consultant, responded in a letter that resolved the alleged violation. (See letter attached.)

A notice of violation letter is being sent to the City of Austin. A violation is being alleged because the methane concentrations at the property boundary exceed the lower explosive limit. (See letter attached.)

ATTACHMENT 22

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TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 330	MUNICIPAL SOLID WASTE
SUBCHAPTER L	LOCATION RESTRICTIONS
RULE §330.300	**Airport Safety**

(a) Owners or operators of new municipal solid waste landfill (MSWLF) units, existing MSWLF units, and lateral expansions that are located within 10,000 feet of any airport runway end used by turbojet aircraft or within 5,000 feet of any airport runway end used only by piston-type aircraft shall demonstrate that the units are designed and operated so that the MSWLF unit does not pose a bird hazard to aircraft.

(b) Owners or operators proposing to site new MSWLF units and lateral expansions located within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft shall notify the affected airport and the Federal Aviation Administration (FAA).

(c) The owner or operator shall submit the demonstration in subsection (a) of this section with a permit application, a permit amendment application, or a permit transfer request. The demonstration will be considered a part of the operating record once approved.

(d) Sites disposing of putrescible waste shall not be located in areas where the attraction of birds can cause a significant bird hazard to low-flying aircraft. Guidelines regarding location of landfills near airports can be found in Federal Aviation Administration Order 5200.5(A), 1/31/90. All landfill sites within five miles of an airport shall be critically evaluated to determine if an incompatibility exists.

Source Note: The provisions of this §330.300 adopted to be effective October 9, 1993, 18 TexReg 4023.

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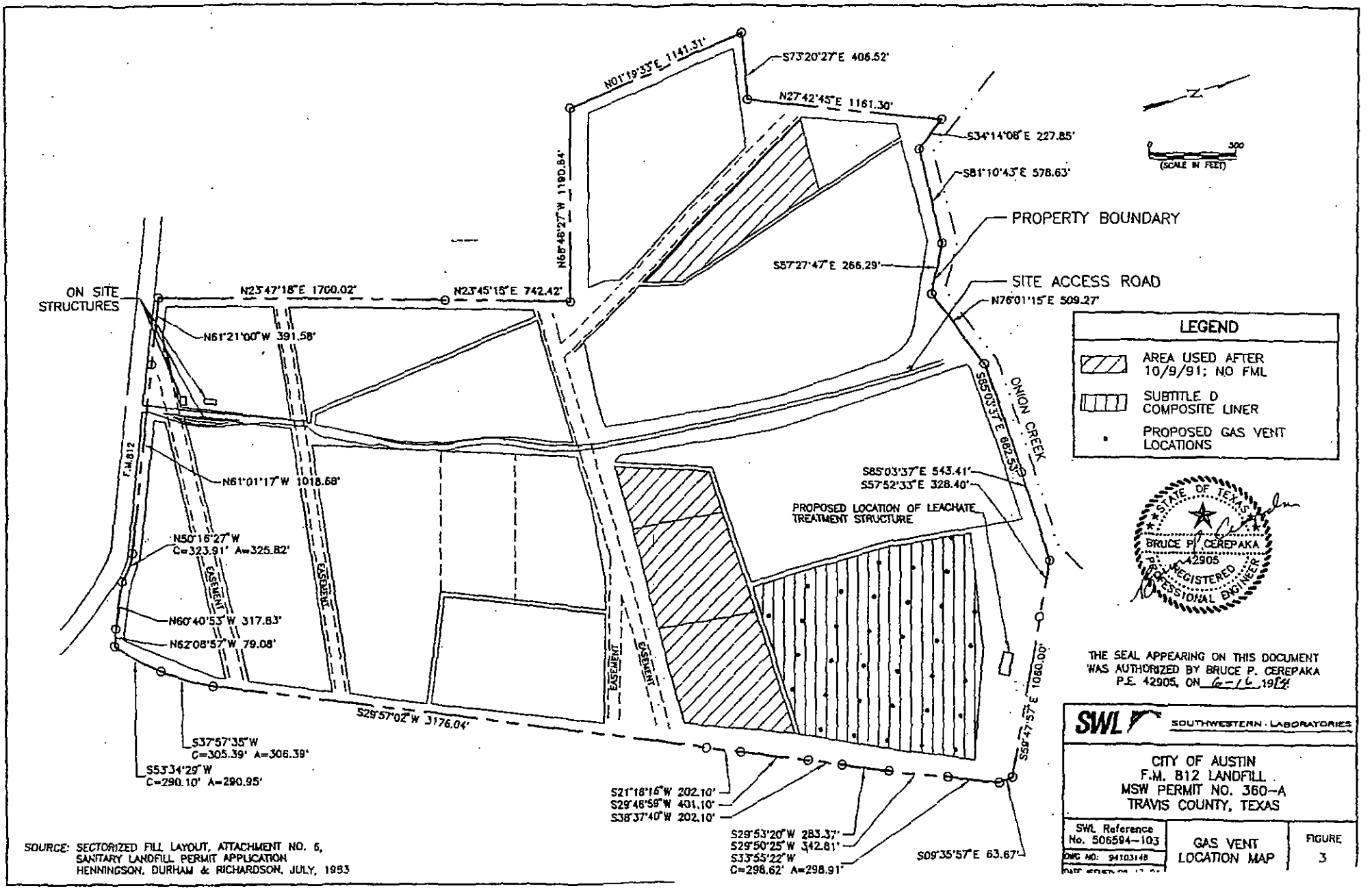


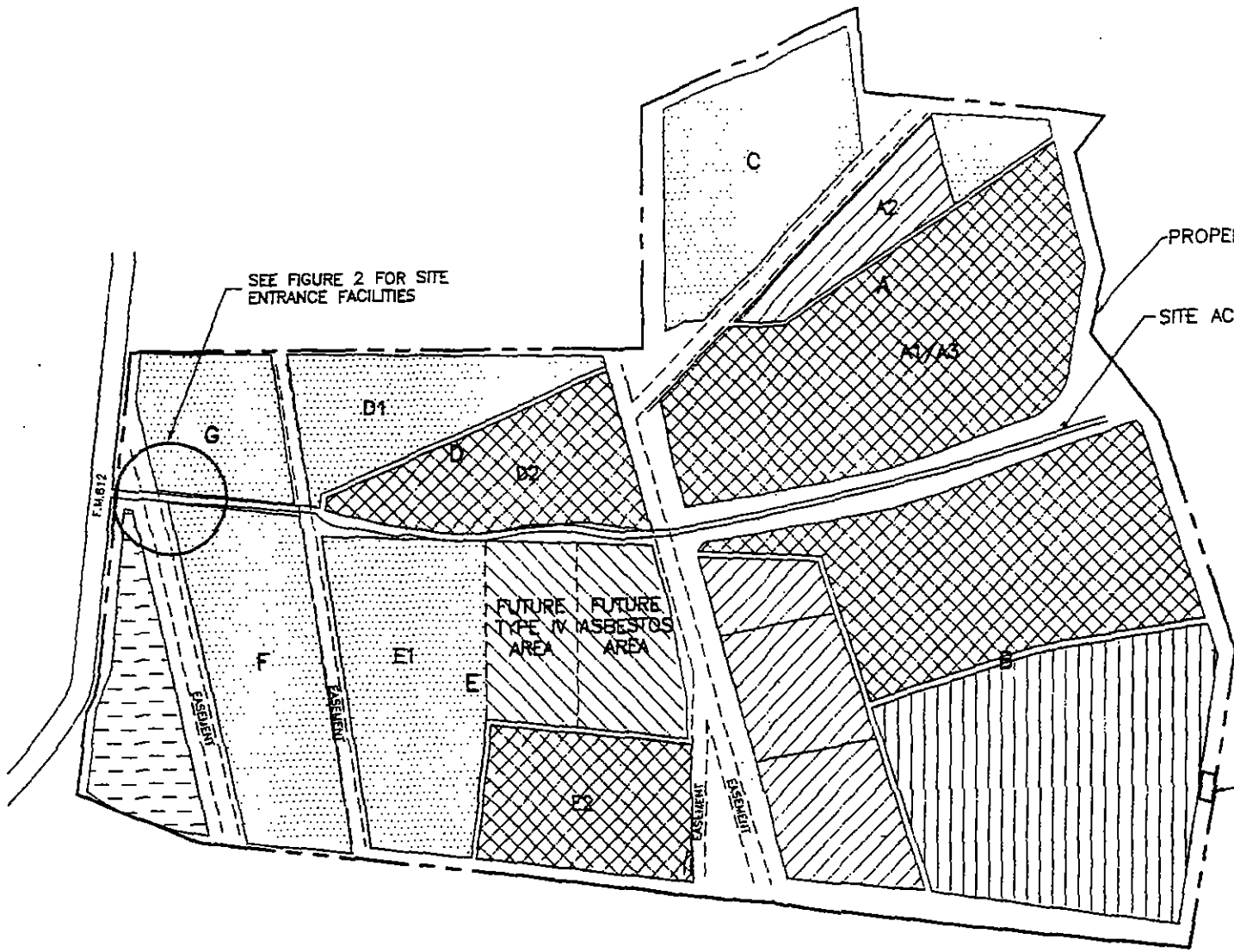
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY BRUCE P. CEREPAKA P.E. 42905, ON 6-16 1994

SOURCE: SECTORIZED FILL LAYOUT, ATTACHMENT NO. 6, SANITARY LANDFILL PERMIT APPLICATION HENNINGSON, DURHAM & RICHARDSON, JULY, 1983

SWL SOUTHWESTERN LABORATORIES

CITY OF AUSTIN
F.M. 812 LANDFILL
MSW PERMIT NO. 360-A
TRAVIS COUNTY, TEXAS

SWL Reference No. 506594-103	GAS VENT LOCATION MAP	FIGURE 3
DWG NO: 94103148		



STATE OF TEXAS
CYNTHIA C. LANCASTER
72198
REGISTERED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CYNTHIA C. LANCASTER P.E. 72198, ON 4-0, 1994

LEGEND

- PRE SUBTITLE D
- ACTIVE SUBTITLE D (PRIOR TO 10/9/93)
- AREAS TO BE REMOVED FROM PERMIT
- FILLING NOT ALLOWED
- SUBTITLE D (AFTER 10/9/93)
- UNUSED NON SUBTITLE D AREA

SOURCE: SECTORIZED FILL LAYOUT, ATTACHMENT NO. 6, SANITARY LANDFILL PERMIT APPLICATION HENNINGSON, DURHAM & RICHARDSON, JULY, 1983

SWL SOUTHWESTERN LABORATORIES

CITY OF AUSTIN
F.M. 812 LANDFILL
MSW PERMIT NO. 360-A
TRAVIS COUNTY, TEXAS

SWL Reference No. 505594-103	SITE LAYOUT MAP	FIGURE 1
DWG NO: 94103141		
DATE ISSUED: 10-24-94		

ATTACHMENT 24

FINAL CLOSURE PLAN

CITY OF AUSTIN F.M. 812 LANDFILL
TRAVIS COUNTY, TEXAS
MSW PERMIT NO. 360-A

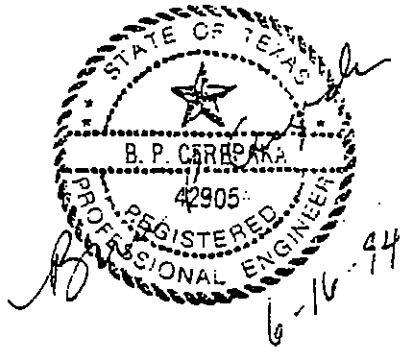
Prepared for:

CITY OF AUSTIN
Austin, Texas

Prepared by:

SWL/HUNTINGDON ENGINEERING & ENVIRONMENTAL, INC.
Austin, Texas

June 1994



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1.0 INTRODUCTION

This Final Closure Plan (FCP) consists of procedures to be followed for closure of completed areas of the City of Austin F.M. 812 Landfill and for final closure of the entire facility. This FCP is a supplement to the existing permit 360-A. It specifically addresses requirements of Subtitle D for closure of area B of the landfill which received waste after October 9, 1991. The specific closure procedures outlined in this FCP must be acknowledged and utilized during closure operations. This FCP shall be maintained at the site office, or other designated location, as part of the operating record. The term "closure area" is used throughout this document and refers to an area of the landfill which has received its maximum amount of waste and is ready to receive final cover. The term "final site closure" refers to closure of the entire facility.

Capacity Analysis

Because this landfill is to be closed in 1998, a sizable portion of the landfill area will not be utilized. These areas that are to be removed from the landfill permit are shown on Figure 1 and include areas C, D1, G, F, a portion of A2, and part of E1. However, because permitted excavation depths and permitted heights have both been exceeded in Area B, the largest area of the landfill, it was necessary to demonstrate that the volumes in the unused areas exceed the additional volume added in Area B such that the total permitted waste volume for the site will not be exceeded. The following table shows a comparison of the fill volumes and waste volumes for the 1983 permit and the 1994 permit modification, and the volumes removed from the permit.

It is assumed that in all areas that have been used outside of Area B, the landfilling was done in accordance with permitted depths and heights. For areas that are not to be used, an average fill height was determined from comparison of February 1994 topography to the 1983 final cover plan. The average fill height plus the excavation depth were multiplied by the area to estimate the total fill volume not being utilized. In Area B, four cross-sections were used to compare previously permitted volumes to proposed volumes. The cross-sections indicate an approximate 20% increase in total fill volume. A 25% increase is assumed as a conservative estimate.

TABLE 1
SUMMARY OF CAPACITY REDUCTION FOR REVISED CLOSURE PLAN
City of Austin
FM 812 Landfill, MSW Permit No. 360A

AREA LABELS	AREA IN ACRES	1983 PERMIT[1]				1994 MODIFICATION	
		PERMITTED DEPTH	ESTIMATED FILL HEIGHT	TOTAL FILL VOLUME (c.y.)	WASTE VOLUME (c.y.)	FILL VOLUME CHANGE (c.y.)	WASTE VOLUME CHANGE (c.y.)
A-1	24.33	0	-	856,074	621,912	0	0
A-2 unused	6.80	7.0	20	1,600,202	1,177,196	(296,209)	(217,907)
A-2 filled	20.50	7.0	-			0	0
A-3	12.30	0	-				
B-1	15.21	13.5	-	5,082,047	3,770,963	1,270,512[2]	942,741[2]
B-2	15.98	13.5	-				
B-3	45.12	13.5	-				
B-4	37.10	0	-				
C	22.68	6.0	-	732,061	526,790	(732,061)	(526,790)
D-1	12.79	13.5	15	911,283	658,566	(588,084)	(424,997)
D-2	14.30	0	-			0	0
E-1 unused	21.00	8.0	16	1,761,840	1,263,257	(813,120)	(583,015)
E-1 future	20.57	8.0	-			0	0
E-2	14.73	0	-				
F	20.41	7.0	-	775,682	567,105	(775,682)	(567,105)
G	9.55	6.0	-	278,140	197,611	(287,140)	(197,611)
Total Changes						(2,212,783)	(1,574,684)
TOTAL VOLUMES				11,997,329	8,783,400	9,784,546	7,208,716

[1]Source: November 1983 Permit Application, HDR.
[2]Based upon four cross sections.

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STATE OF TEXAS
B. P. CRAFT
72905
REGISTERED
PROFESSIONAL ENGINEER

9-21-94

2.0 DEADLINES FOR CLOSURE OPERATIONS

2.1 Submittal of Final Closure Plan

This FCP shall be submitted to the Texas Natural Resource Conservation Commission (TNRCC) for review and approval in conjunction with the Site Development Plan.

2.2 Public Notification of Initiation of Closure Activities

No later than 90 days prior to the initiation of final site closure, the facility owner shall notify the public of the planned closure. The public notice shall be placed in the Austin newspaper of largest circulation, and shall include the following information:

- Name of facility;
- Address;
- Physical location;
- Permit number; and
- Last day of intended waste receipt.

2.3 TNRCC Notification of Initiation of Closure Activities

No later than 45 days prior to the initiation of closure activities, the owner of the MSWLF shall provide written notification to the TNRCC of the intent to close an area of the landfill, and/or the intent to close the entire facility. When the written notice to the TNRCC is provided, procedures to be followed for closure construction quality control and quality assurance shall be provided to the TNRCC and incorporated into this Final Closure Plan. The construction quality control and quality assurance procedures shall be based on the TNRCC guidance under development.

2.4 Posting of Sign

No later than 45 days prior to initiation of final site closure activities at the facility, the owner shall post a sign at the main entrance, and all other frequently used points of access, notifying all persons of the date of closing for the facility. Also, once closure activities begin, suitable

barriers shall be installed at all access points to adequately prevent unauthorized dumping of solid waste at the closed facility.

2.5 Initiation of Closure Activities

Closure activities at the facility shall begin no later than 30 days after the date on which the closure area receives the known final receipt of waste. However, if the closure area has remaining capacity which will likely receive waste in the future, the initiation of construction activities may be postponed for a maximum of one year after the most recent receipt of waste.

2.6 Completion of Closure Activities

The owner shall complete final closure activities for the closure area or the entire facility in accordance with the FCP within 180 days following the initiation of closure activities. A request, including all necessary applicable documentation, for an extension of closure activities completion may be submitted to the TNRCC for approval if closure activities are estimated to take longer than 180 days.

2.7 Submittal of an "Affidavit to the Public"

Within 10 days after completion of final site closure activities for the facility, the owner shall submit to the TNRCC a certified copy of an "Affidavit to the Public". The affidavit shall inform the public of the date of closing for the facility, and that the receipt of waste materials after the stated date is prohibited.

3.0 PRE-CLOSURE ACTIVITIES

Before initiation of closure activities begins, the following tasks shall be performed:

- Topographic survey of surface of area to be closed;
- Closure area evaluation; and
- Boundary survey (if final site closure).

Once this information is obtained, a proper final cover system shall be constructed that will minimize stormwater infiltration into the waste and erosion of the final cover.

3.1 Topographic Survey

A topographic survey of the closure area shall be performed upon completion of waste collection. The survey will assist in evaluating the existing height and top slope of the closure area so that permit compliance can be evaluated and the final closure system, drainage system, and final grading can be properly constructed.

3.2 Site Evaluation

An evaluation of the closure area shall be performed upon completion of waste collection. The evaluation shall include a site inspection to delineate the area of waste disposal, analyze drainage and erosion protection needs, and to determine other operational features that may not be in compliance with the permit. An evaluation of the operation records shall also be performed to detect any inappropriate waste disposal activities.

The design of the final cover system shall address any problem areas detected during the site evaluation.

3.3 Boundary Survey

A boundary survey of the entire facility shall be performed as part of the final site closure to provide a metes and bounds description for the filing of the affidavit of closure, and deed recording of any area of the site which has received waste.

4.0 FINAL COVER MATERIALS AND DESIGN

4.1 Infiltration Layer

The infiltration layer of the final closure system shall consist of a minimum 18-inch thick layer of constructed clay cap with a coefficient of permeability no greater than $1x10^{-5}$ cm/s.

4.2 Flexible Membrane Cover

A polyvinyl chloride (PVC) flexible membrane cover (FMC) shall be utilized as part of the final cover system. Material that is similar to the flexible membrane liner (FML) shall be used for the FMC. The minimum thickness of the PVC cover shall be 30 mils, and shall have a permeability no greater than the permeability of the FML. Specific details of the FMC are illustrated on the Figures included with this permit modification application. An FMC is not required on landfill cells or portions of cells as shown on Figure 13 that do not have a flexible membrane liner. This is based on the final closure requirements for landfill cells that received waste after October 9, 1991, but stopped receiving waste prior to October 9, 1993.

4.3 Drainage Layer

A drainage layer shall be placed above the FMC to drain off any stormwater that infiltrates the overlying erosion layer. The drainage layer shall consist of one of the following: granular material covered with a non-woven geotextile filter fabric; or geonet/non-woven geotextile composite. If a granular material is utilized for the drainage layer, it shall be at least 12 inches thick, shall be constructed of rounded granular soils meeting the requirements of ASTM C 33 for coarse aggregate and Size No. 67 gradation requirements or the requirements stated in the construction specifications, and shall be covered with a non-woven geotextile filter fabric.

To collect the infiltrated stormwater from the drainage layer, a collection pipe system shall be placed around the base of the cover slopes. The collection pipes are shown on the Figures.

A drainage layer is not required on landfill cells or portions of cells as shown on Figure 13 that do not have a flexible membrane liner. This is based on the final closure requirements for landfill cells that received waste after October 9, 1991, but stopped receiving waste prior to October 9, 1993.

4.4 Erosion Protection Layer

The erosion protection layer shall be at least 12 inches thick if a granular material is used for the drainage layer. If a geonet/geotextile composite is utilized for the drainage layer, then the erosion protection layer shall be at least 24 inches thick. Details are shown on the Figures.

The erosion protection layer is only required to be six inches thick on landfill cells or portions of cells as shown on Figure 13 that do not have a flexible membrane liner. This is based on the

final closure requirements for landfill cells that received waste after October 9, 1991, but stopped receiving waste prior to October 9, 1993.

The top 6 inches of the erosion protection layer shall consist of soil that is capable of sustaining plant growth. If a soil with high shrink/swell characteristics is utilized for the erosion protection layer, it may be necessary to increase the thickness of the erosion protection layer by 6 inches to compensate for surface cracking of the soil. Soil loss calculations are attached.

4.5 Revegetation

Revegetation includes the activities necessary to provide vegetative erosion protection over the surface of the completed cap. The surficial 6 inches of the erosion protection layer shall be seeded, sodded, or hydromulch applied immediately following installation of the final cover for the closure area in order to minimize erosion. Native grasses and/or non-native grasses which may include ryegrass, coastal bermuda, fescue, bromegrass, or others will be used for revegetation purposes. These grasses have an average root depth ranging from six to twenty inches. This is deep enough to prevent excessive drying of the roots during dry periods, and shallow enough to prevent penetration into the geonet/geotextile drainage layer. These types of grasses are commonly used in the Austin area and are successful in establishing vegetative cover based on the observations of types of grasses planted in the Austin area and recommendations of the Travis County Agricultural Extension.

4.6 Site Grading and Drainage

The cover soil shall be properly graded according to the construction drawings and specifications in order to promote positive drainage off of the final cover, and to provide sedimentation control.

4.7 Final Contour Map

A final contour map shall be developed for the surface of the final cover for the closure area. The contour map shall illustrate the proposed final contours, establishing top slopes and side slopes, proposed surface drainage features, and protection of any 100-year floodplain.

5.0 FINAL COVER INSTALLATION

After intermediate cover soil has been placed on the closure area and the topographic survey has been completed, final cover may be placed on the closure area. The final cover system will consist of the following:

- Infiltration layer;
- Flexible membrane cover;
- Drainage layer and collection pipes;
- Erosion protection layer; and
- Vegetative cover.

A topographic map is included with the Figures, final cover tie in details for non-Subtitle D and Subtitle D waste areas are shown in the details on Figure 12. Note that there is only one tie in of old and new areas. Drainage ditches in the final cover are as depicted on Figures 4 and 5.

5.1 Infiltration Layer

The clay soil utilized for the infiltration layer shall be placed in 6 inch lifts and compacted to at least 95 percent of Standard Proctor (ASTM D 698) maximum dry density at a moisture content above optimum. The infiltration layer shall have a minimum thickness of 18 inches, and a permeability no greater than $1x10^{-5}$ cm/s. After placement and compaction, the permeability of the infiltration layer shall be tested at a frequency of no less than one test per surface acre of final cover.

Permeability test results for the infiltration layer shall be submitted to the TNRCC, as part of the documented certification discussed in Section 6.0, for review and approval.

5.2 Flexible Membrane Cover

The FMC shall be properly installed in accordance with the manufacturer's quality assurance program. The top surface of the infiltration layer shall be smooth and free of large rocks,

sticks, or other debris which could damage the FMC. Placement and installation of the FMC shall be performed in a way to minimize wrinkling; and excessive wrinkling shall not be permitted. The FMC shall not be installed during adverse weather conditions such as in freezing temperatures. All persons walking on the geomembrane shall wear shoes which will not damage the material.

5.3 Drainage Layer and Collection Pipes

The drainage layer may consist of either a granular material overlain by a non-woven geotextile, or a geonet/non-woven geotextile composite.

If a granular material is utilized, the drainage layer shall be at least 1 foot thick, and a non-woven geotextile filter fabric shall be placed above the granular drainage layer to prevent fines from infiltrating and clogging the granular material. The sheets of geotextile or geonet/geotextile composite shall be properly sewn or tied together. The collection pipes shall be 6-inch diameter Schedule 80 PVC pipe, or as required in the construction specifications.

5.4 Erosion Protection Layer

Proper grading of the erosion protection layer, in accordance with the construction drawings and specifications, shall be implemented to promote positive drainage, and the surface shall be vegetated as specified in Section 4.5 to assist in erosion control.

6.0 CERTIFICATION OF FINAL CLOSURE ACTIVITIES

Following completion of final closure activities for a closure area, a documented certification verifying that final closure activities have been completed in accordance with the approved final closure plan shall be submitted by the owner to the TNRCC for review and approval. This certification shall be signed by an independent registered engineer, and shall include all applicable documentation necessary for the certification. Once approved, this certification shall be placed in the operating record.

7.0 MAXIMUM CLOSURE AREA AND MAXIMUM WASTE VOLUME

The largest allowable closure area of the facility that will require a final cover at any time during the life of the facility shall be no larger than 10 acres.

The maximum possible waste volume that will ever be present onsite over the life of the MSWLF will be the total waste capacity volume of the landfill. The total capacity of the landfill is approximately 8.8 million cubic yards.

8.0 FINAL CLOSURE COST ESTIMATE OF MAXIMUM CLOSURE AREA

In order to assure that proper funds are budgeted to cover the cost to hire a third party to properly close the facility and provide post-closure care should the need arise, a cost estimate has been developed to determine the amount of funds that will be required. An itemized list of the cost estimate is included.

The cost estimate is based on the cost of closing the largest closure area of the landfill ever requiring final cover during the active life of the facility. A maximum area of 10 acres will require final cover placement, revegetation and closure evaluation.

FINAL CLOSURE COST ESTIMATE
FOR FINANCIAL ASSURANCE
City of Austin F.M. 812 Landfill
Austin, Texas

COST ITEM	UNIT MEASURE	COST/UNIT	NUMBER OF UNITS	ESTIMATED TOTAL
Engineering Costs				
Topographic Survey	Per Acre	$100.00	10	$1,000.00
Site Evaluation	Per Acre	$750.00	10	$7,500.00
Final Closure Plan	Per Acre	$650.00	10	$6,500.00
Closure Inspection & Testing	Per Acre	$1,750.00	10	$17,500.00
Construction Costs				
Infiltration Layer	Per Cubic Yard	$4.25	24,200	$102,850.00
Flexible Membrane Cover	Per Square Foot	$0.45	435,600	$196,020.00
Drainage Layer	Per Cubic Yard	$4.50	16,135	$72,603.00
Erosion Layer	Per Cubic Yard	$1.35	8,066	$10,890.00
Revegetation	Per Acre	$1,750.00	10	$17,500.00
Site Grading & Drainage	Per Acre	$1,250.00	10	$12,500.00
			SUBTOTAL	**$444,863.00**
			10% CONTINGENCY	**$44,486.00**
			TOTAL	**$489,349.00**

STATE OF TEXAS
GEORGE P. HORN
60011
REGISTERED
PROFESSIONAL ENGINEER
1994

SOIL LOSS ESTIMATES

The Universal Soil Loss Equation is used to estimate soil losses for the landfill final cover design. The equation is stated as follows:

$$A = R K LS C P$$

where: A = soil loss in tons per acre per year.

R = rainfall/runoff factor = 280 for FM 812 landfill.

K = soil erodibility factor = 0.28 for this site.

LS = slope-steepness factor = 5.3 for 25% slopes with 80 foot slope lengths.

C = cover and management factor = 0.006 to reflect 90% cover.

(Note: C factor reduced from first-try estimate based on decision to emphasize BMP revegetation procedures as the preferred tool for minimizing soil losses.)

P = support practice factor = 1.

Based on these inputs, A = 2.5 tons per acre per year. Estimated annual soil loss is within tolerance limits.

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TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 330	MUNICIPAL SOLID WASTE
SUBCHAPTER J	CLOSURE AND POST-CLOSURE
RULE §330.252	**Closure Requirements for MSWLF Units That Receive Waste on or after October 9, 1991, But Stop Receiving Waste Prior to October 9, 1993**

(a) The owner or operator of these units shall comply with all final cover requirements as specified in §330.253 of this title (relating to Closure Requirements for MSWLF Units That Receive Waste on or after October 9, 1993, and MSW Sites).

(b) The owner or operator of these municipal solid waste landfill (MSWLF) units or facilities shall comply with all post-closure care maintenance requirements for the final cover of these units or facilities as specified in §330.254(a) of this title (relating to Post-Closure Care Maintenance Requirements).

(c) The final cover shall be completed within 180 days of the last receipt of wastes or by the effective date of this title, whichever is later. Owners or operators of MSWLF units that fail to complete final cover installation within this 180-day period will be subject to all requirements of §330.254(b) of this title (relating to Post-Closure Care Maintenance Requirements) unless otherwise specified.

Source Note: The provisions of this §330.252 adopted to be effective October 9, 1993, 18 TexReg 4023.

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TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 330	MUNICIPAL SOLID WASTE
SUBCHAPTER J	CLOSURE AND POST-CLOSURE
RULE §330.253	**Closure Requirements for MSWLF Units That Receive Waste on or after October 9, 1993, and MSW Sites**

(a) The owner or operator of these municipal solid waste landfill facility (MSWLF) units or municipal solid waste (MSW) sites shall comply with all requirements of this subchapter unless otherwise specified.

(b) Within 180 days of the last receipt of wastes for a MSWLF unit, the owner or operator shall complete the installation of a final cover system for that unit that is designed and constructed to minimize infiltration and erosion. The final cover system shall be composed of no less than two feet of soil and consist of an infiltration layer overlain by an erosion layer as follows.

(1) For MSWLF units with a synthetic bottom liner, the infiltration layer shall consist of a minimum of 18 inches of earthen material with a coefficient of permeability no greater than 1x10-5 cm/sec overlain by a synthetic membrane that has a permeability less than or equal to the permeability of any bottom liner system. The minimum thickness of the synthetic membrane shall be 20 mils, or 60 mils in the case of high-density polyethylene (HDPE), in order to ensure proper seaming of the synthetic membrane.

(2) For MSWLF units with no synthetic bottom liner, the infiltration layer shall consist of a minimum of 18 inches of earthen material with a coefficient of permeability less than or equal to the permeability of any constructed bottom liner or natural subsoil present. The coefficient of permeability of the infiltration layer shall in no case exceed 1x10-5 cm/sec, even though the coefficient of permeability of the constructed bottom liner or natural subsoil is greater than 1x10-5 or no data exist for the value(s) of the coefficient of permeability of the constructed bottom liner or natural subsoil; and

(3) For all MSWLF units, the erosion layer shall consist of a minimum of six inches of earthen material that is capable of sustaining native plant growth and shall be seeded or sodded immediately following the application of the final cover in order to minimize erosion.

(c) The executive director may approve an alternative final cover design that includes:

(1) an infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in subsection (b)(1) or (2) of this section; and

(2) an erosion layer that provides equivalent protection from wind and water erosion as the erosion layer specified in subsection (b)(3) of this section.

(d) The owner or operator of all MSWLF units or lateral expansions at a facility shall prepare a written final closure plan for submittal to the executive director for review and approval that describes the steps necessary to close all MSWLF units or MSW sites at any point during the active life of the unit or MSW site in accordance with §330.254 (a) or (b) of this title (relating to Post-Closure Care Maintenance Requirements), as applicable. The final closure plan, at a minimum, shall include the following information:

(1) a description of the final cover design and methods and procedures to be used to install the cover;

(2) an estimate of the largest area of the MSWLF unit or MSW site ever requiring a final cover at any time during the

active life of the unit or MSW site;

(3) an estimate of the maximum inventory of wastes ever on site over the active life of the unit or MSW site;

(4) a schedule for completing all activities necessary to satisfy the closure criteria; and

(5) a final contour map depicting the proposed final contours, establishing top slopes and side slopes, proposed surface drainage features, and protection of any 100-year floodplain;

(6) a detailed written estimate, in current dollars, of the cost of hiring a third party to close the largest area of all MSWLF units ever requiring a final cover at any time during the active life when the extent and manner of its operation would make closure most expensive, as indicated by the closure plan and which satisfies the requirements specified in Subchapter K of this chapter (relating to Closure, Post- Closure, and Corrective Action). During the active life of the MSWLF unit, the owner or operator shall annually adjust the closure cost estimate and the amount of financial assurance for inflation in accordance with Chapter 37, Subchapter R of this title (relating to Financial Assurance for Municipal Solid Waste Facilities). The revised closure cost estimate shall be submitted to the executive director. Evidence of any additional financial assurance shall be provided to the executive director within 30 days after the annual anniversary date.

(e) Implementation of the final closure plan is as follows.

(1) The owner or operator of all existing MSWLF units and lateral expansions at a facility shall submit to the executive director for review and approval the final closure plan required by subsection (d) of this section and place a copy of the approved final closure plan in the operating record no later than the effective date of this title or by the initial receipt of waste, whichever is later. For all new MSWLF units or MSW sites, the final closure plan shall be submitted to the executive director for review and approval in conjunction with the site development plan.

(2) No later than 45 days prior to the initiation of closure activities for a MSWLF unit or MSW site, the owner or operator of the unit or MSW site shall provide written notification to the executive director of the intent to close the unit or MSW site and place this notice of intent in the operating record.

(3) No later than 90 days prior to the initiation of a final facility closure, the owner or operator shall, through a public notice in the newspaper(s) of largest circulation in the vicinity of the facility, provide public notice for final facility closure. This notice shall provide the name, address, and physical location of the facility, the permit number, and the last date of intended receipt of waste. The owner or operator shall also make available an adequate number of copies of the approved final closure and post- closure plans for public access and review.

(4) The owner or operator of all MSWLF units at a facility or of a MSW site shall begin final closure activities for each unit or site no later than 30 days after the date on which the unit or site receives the known final receipt of wastes or, if the unit or site has remaining capacity and there is a reasonable likelihood that the unit or site will receive additional wastes, no later than one year after the most recent receipt of wastes. A request for an extension beyond the one-year deadline for the initiation of final closure may be submitted to the executive director for review and approval and shall include all applicable documentation necessary to demonstrate that the unit or site has the capacity to receive additional waste and that the owner or operator has taken and will continue to take all steps necessary to prevent threats to human health and the environment from the unclosed MSWLF unit or MSW site.

(5) The owner or operator of a MSWLF unit or MSW site shall complete final closure activities for the unit or site in accordance with the approved final closure plan within 180 days following the initiation of final closure activities as specified in paragraph (7) of this subsection. A request for an extension for the completion of final closure activities may be submitted to the executive director for review and approval and shall include all applicable documentation necessary to demonstrate that final closure will, of necessity, take longer than 180 days and all steps have been taken and will continue to be taken to prevent threats to human health and the environment from the unclosed MSWLF unit or MSW site.

(6) Following completion of all final closure activities for the MSWLF unit or MSW site, the owner or operator shall submit to the executive director for review and approval a documented certification, signed by an independent registered professional engineer, verifying that final closure has been completed in accordance with the approved final closure plan. The submittal to the executive director shall include all applicable documentation necessary for certification of final closure. Once approved, this certification shall be placed in the operating record.

(7) Upon notification to the executive director as specified in paragraph (2) of this subsection, the owner or operator of a MSWLF unit or MSW site shall post a minimum of one sign at the main entrance and all other frequently used points of access for the facility notifying all persons who may utilize the facility or site of the date of closing for the entire facility or site and the prohibition against further receipt of waste materials after the stated date. Further, suitable barriers shall be installed at all gates or access points to adequately prevent the unauthorized dumping of solid waste at the closed facility or site.

(8) Within 10 days after completion of final closure activities of a facility or site, the owner or operator shall submit to the executive director a certified copy of an "affidavit to the public" in accordance with the requirements of §330.7 of this title (relating to Deed Recordation) and place a copy of the affidavit in the operating record. In addition, the owner or operator of the closed facility or site shall record a certified notation on the deed to the facility or site property, or on some other instrument that is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that the land has been used as a landfill facility and use of the land is restricted according to the provisions specified in §330.255 of this title (relating to Post-Closure Land Use). The owner or operator shall submit a certified copy of the modified deed to the executive director and place a copy of the modified deed in the operating record within the timeframe specified in this paragraph.

(9) The owner or operator of a MSWLF unit or MSW site may request permission from the executive director to remove the notation from the deed if all wastes are removed from the facility or site in accordance with §330.4(a) of this title (relating to Permit Required).

(10) Following receipt of the required final closure documents, as applicable, and an inspection report from the commission's district office verifying proper closure of the MSWLF facility or site according to the approved final closure plan, the executive director may acknowledge the termination of operation and closure of the facility or site and deem it properly closed. Post-closure care maintenance shall begin immediately upon the date of final closure as approved by the executive director.

(f) Quality control testing documentation is as follows. Each owner or operator responsible for placing and compacting clay soils for the final cover infiltration layer shall test the 18 inches of compacted material for its coefficient of permeability at a frequency of no less than one test per surface acre of final cover. Permeability data shall be submitted to the executive director in a format stipulated in technical guidelines furnished by the executive director.

Source Note: The provisions of this §330.253 adopted to be effective October 9, 1993, 18 TexReg 4023; amended to be effective March 21, 2000, 25 TexReg 2380

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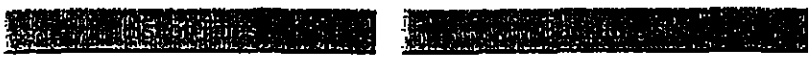
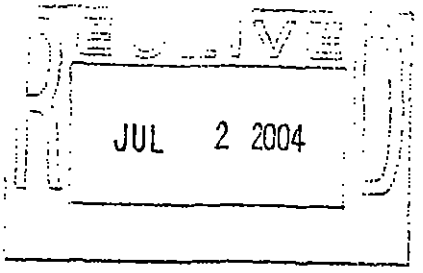


ATTACHMENT 26

City of Austin

June 29, 2004



Texas Landfill Management, L.L.C.
Attn: Bob Gregory
P.O. Box 17126
Austin, TX 78760-7126

RE: RFP No. SA04300021 "Management & Operation of City of Austin's Type IV Landfill"

Mr. Gregory

On May 20, 2004, when proposals were received in response to the subject solicitation, your firm's questions were inadvertently directed to the Purchasing Office's bid file instead of being turned over to the buyer for review and action. I apologize for this oversight. We have taken the questions and responded to each one. If the responses will cause any modification to your proposal, we ask that you provide us an amendment to your proposal no later than 2:00 PM, Monday, July 19, 2004. No further questions will be addressed or site visits allowed.

This information and offer is being made to the other respondents in an effort to keep the proposals on an even field. If you have any questions please don't hesitate to contact me at (512) 974-2021 or via e-mail at steve.aden@ci.austin.tx.us.

Sincerely

Stephen T. Aden
Supervising Senior Buyer
Purchasing Office
206 E. 9th Street, Suite 15.120
Austin, TX 78701

RFP NO. SA04300021
"Management & Operation of City of Austin's Type IV Landfill"

RFP Questions and Response

General Issues:

1. Does the prospective contractor have continued access to the FM 812 Landfill to perform onsite investigations? If so, under what specific conditions.
   Answer: No, prospective Contractors will not have continued access to perform onsite investigations.

2. 30 TAC 330.113 requires that the Site Operating Records be maintained at the MSWLF. Is the entire Site Operating Records maintained at the FM 812 facility? Is any of the Site Operating Records maintained at an alternate location, if so, where, and has the offsite locating been approved by TCEQ or its predecessor agencies? Is the Site Operating records complete?
   Answer: Yes, Site Operating Records are maintained at the FM 812 Facility.

3. Does the COA have a single or several maps of liner certifications for the FM 812 Landfill and, if so, will the COA provide it (them)? Is there any information in the Site Operating Record for the FM 812 Landfill that would indicate that there are gaps in the areas for which liner certifications were made or not made and upon which solid waste has been deposited?
   Answer: There are several maps of liner certifications located in the operating permit document. The operating permit document was made available to all contractors during the review period.

4. At the mandatory pre-proposal conference, COA staff stated that they hoped that the City Council would not take any action to set or affect gate rates charged by the prospective contractor. Has there been any discussion with the City Council members and has this issued been resolved and if so, how?
   Answer: There has been no discussion regarding this item with the COA Council members.

5. Don Birkner, Assistant Director of Solid Waste for the COA staff stated that a proposal may be taken to the City Council with a "contingent upon" clause. Will such contingencies count as exceptions and potentially adversely affect the score assessed for a prospective contractor's proposal?
   Answer: Yes, see RFP 0600, 2.C.Part III, iii "Exceptions to the Terms and Conditions".

6. Is the Camp Dresser & McKee Inc. study of the north side of the landfill, with all accompanying soil test data, complete and available for review?
   Answer: Yes, the report was part of the project manual for the Leachate Interceptor project, which was made available to all contractors during the review period?

7. In the RFP under the heading, "Proposal Preparation Instructions and Evaluation Factors", C.vi., the COA asks for explanatory information concerning safety issues, labor issues, workman's compensation issues, current and anticipated legal encumbrances, etc, but does not ask for explanatory information concerning operational issues at other facilities owned and/or operated by the potential Contractor. Is this an oversight or are operational issues at other facilities owned and/or operated by the potential Contractor not of concern to the COA? It would seem that the COA would want such critical information.
   Answer: See RFP 0600, 2.C.Part III, vi "other Special Features and Explanatory Information.

8. Does the COA have and will the COA make available to potential contractors copies of historical aerial photos of the FM 812 Landfill?
   Answer: Historical aerial photographs are not available. However, copies of contour maps from 1994 and 2002 are attached.

9. We understand that the COA may have contracted for a survey of the landfill by McGray and McGray through Lockwood, Andrews & Newman, Inc.. Is the survey available and will the COA please provide a copy of the survey.
   Answer: See 8 above.

Closure and Post-Closure Care Issues

10. It appears from the RFP that the COA envisions that the contractor be responsible for closure and post-closure care of the landfill. At the mandatory pre-proposal conference on March 26, Mr. Hani Michel, P.E., indicated that portions of the landfill are near or at final permitted elevations. Is the contractor to be responsible for closure and post-closure care for those portions of the existing landfill on which it cannot operate? Will the city provide a map of current elevations and final contour elevations? What is the approved final cover design for the landfill? Has any portion of the landfill received final cover, and, if so, where and how much acreage?
    Answer: The contractor is responsible for all closure and post closure care of the Landfill. A contour map dated 2002 was made available to all contractors during the review period. Additionally, the FM 812 landfill permit with final contour elevations was also made available to all contractors during the review period. No final cover has been placed.

11. The post-closure care period is presumptively thirty years. If after thirty years of post-closure care, there are still unresolved environmental issues, does the contract terminate and the COA assumes responsibility for further post-closure care or does the contract extend indefinitely until all post-closure care issues are resolved to TCEQ satisfaction?
Answer: See RFP 0400 3.A. "Term of Contract".

12. The anticipated contract period is the remaining operating life of the landfill, including any expansion amendments received by the Contractor and including the thirty-year post-closure care period. Does the contractor retain responsibility for disposal of the COA waste up to and even in excess of 20,000 tons per year and for management of recyclables at no cost to either the citizens dropping off the recyclables or from the COA for the entire post-closure care period or even afterward, should the post-closure care period be extended beyond thirty years?
Answer: This will depend on the proposal received.

13. If the FM 812 Landfill were to be ordered closed for some reason, precluding the potential Contractor from earning revenue to offset the expenses of closure and post-closure care, does the Contractor remain responsible for all of the Closure and Post-Closure Care expenses, regardless?
Answer: Yes.

Liability Issues

14. The RFP appears to envision that the contractor assume all environmental liability related to past and future operations, at least through the thirty years of post-closure care, yet the COA is retain ownership of the landfill. Our understanding of the federal regulations is that the generator retains ownership of the wastes indefinitely. Please describe or cite the legal authority by which liability will be transferred from the generator, including the COA to the Contractor.
Answer: See RFP 0500, 3.C.5.2 "Ownership of Waste Material". The COA will retain ownership of Landfill. Responsibility for closure and post closure care and landfill operations will be the contractor's responsibility. Indemnification, liability and responsibility may be allocated through contract provisions.

15. The RFP states that all delivered waste becomes the property of the contractor. This would, of course, include waste brought to the landfill by the COA. Our understanding of the federal regulations is that the generator retains ownership of the wastes indefinitely. Please describe or cite the legal authority by which liability will be transferred from the COA to the Contractor?
Answer: See 14 above.

16. In that the COA received federal funds to develop Bergstrom International Airport, it would be expected that the FAA would hold the COA ultimately responsible for the

continued operation of the airport. If there were an emergency at the FM 812 Landfill (e.g., fire, explosion, landslide into Onion Creek, etc.) that would adversely affect the ability of the airport to continue operations for any period of time, is this a COA liability or is the COA expecting to transfer that liability to the potential Contractors?
Answer: The contractor will be responsible.

17. Does the FM 812 Landfill currently comply with 30 TAC 330.55(b)(2) through (5) and (7)? Does the FM 812 Landfill currently comply with the Travis County Floodplain Ordinance? Does any part of the landfill property fall in the FEMA 100-year floodplain? Does any part of the waste footprint fall within the FEMA 100-year floodplain?
Answer: Yes to all questions.

18. Does the FM 812 Landfill meet the Location Restrictions described in 30 TAC 330 Subchapter L and are there certifications to that effect?
Answer: Yes.

19. Can the COA provide a plat or drawing depicting the property boundary, the limits of historical waste placement, and the surveyed width of buffer zones? Is the landfill property a legal lot? Has there been any placement of solid waste outside the current permitted boundary of the landfill? Has there been placement of solid waste in portions of the landfill that are intended as buffer zones?
Answer: For property boundary and legal description see Travis County deed records. For all other information see TCEQ permit and amendment records. The COA has not placed waste outside permitted areas or buffer zones of the FM 812 Landfill.

20. The COA has accepted large volumes of shredder fluff (non-hazardous industrial waste) from Commercial Metals at the FM 812 Landfill. Is this waste segregated in a specific location which can be delineated or is the shredder fluff dispersed throughout the landfill with ordinary municipal solid waste.
Answer: No, shredder fluff waste is not segregated.

Potential Expansion Issues

21. Are the portions of the landfill marked "no fill" on various drawings precluded from being used for disposal of Type IV waste or any other allowable waste? Were these "no fill" areas formally removed from the permit area? If so, have these "no fill" areas been added back into the permit? If so, when and by what mechanism? Is there any question related to the ability of a potential contractor to use the "no fill" areas for disposal of Type IV waste?
Answer: "No Fill" areas were not removed from the permit. There is no question pending concerning the use of these areas.

22. The RFP appears to anticipate that the Contractor will seek to expand the FM 812 Landfill beyond its present capacity. Yet, the RFP also makes it clear that the COA has review and approval power over such an expansion. What guarantee does the Contractor have the COA will not oppose expansion of the landfill? Will the COA commit, as part of the contract, to support expansion of the FM 812 Landfill? The value of the landfill and the royalty payments to be made to the COA are directly related to the Contractor's ability to expand the facility.
Answer: The COA support for a proposal for expansion will depend on the specifics of the proposal.

23. Has the FAA imposed any height limitations on the landfill? If so, what are these height limitations and does the COA have a signed or verbal agreement with the FAA? Is it the COA opinion that they are at the maximum height in several areas based on some type of FAA agreement?
Answer: Yes, Bergstrom Air Force base had airspace easements over FM 812 Landfill for the benefit of Bergstrom Air Force Base. These easement were assigned to the City. These easements have not changed.

24. Have there been any studies made that demonstrate that the existing liners and leachate collection systems at the FM 812 Landfill can withstand the weight of additional waste deposited through a permit amendment to increase height over the existing waste footprint? If so, please make those studies available.
Answer: No, the COA has not performed these studies.

25. Will the COA allow expansion of the FM 812 Landfill over Pre-Subtitle D liner areas? Will the COA require a liner system to be placed between existing waste at the FM 812 Landfill, either Type I or Type IV waste, and any new waste received by the Contractor at the landfill?
Answer: The COA will consider proposals together with engineering analyses and supporting documentation.

26. For the purpose of continued operation of the FM 812 Landfill, is the north side of the landfill considered to be an unstable area, as defined in 30 TAC 330.2? Why or why not?
Answer: No, for the purposes of continued operation of the Landfill the north side of the Landfill is not considered unstable.

Operational Issues

27. The RFP appears to require that the contractor take over all operational responsibilities and state and federal reporting responsibilities. Does this include responsibility for continued monitoring and remediation related to the existing offsite migration of landfill gas on the east side of the landfill? At the pre-proposal conference, it was indicated that

the COA had "handled" this, but recent gas monitoring reports submitted to TCEQ suggest otherwise.
Answer: There is no offsite migration of Landfill gas. The RFP does not require the contractor to report, monitor or operate the Landfill gas system. See RFP 0500, 3.C.2. "Contractor Responsibility".

28. The COA has installed a landfill gas collection system (LFGCS) over all/part of the landfill. The RFP appears to require that the Contractor take over operation of that system and be responsible for its maintenance and repair. Yet, it also appears that the COA is to receive all revenue from operation of the LFGCS. It is not clear from the RFP whether the contractor is required to offset any revenue losses experienced by the city when the LFGCS goes down or must be taken down for maintenance and repair or to allow placement of additional Type IV waste in the event of a vertical expansion of the landfill. What is the COA's position on that?
Answer: See 27 above.

29. In the mandatory pre-proposal conference, COA representatives stated that it was experiencing "minor bugs" with the LFGCS installed at the FM 812 Landfill. Will the curing or elimination of these minor bugs be a COA responsibility, a contractor responsibility, or a shared responsibility in some way? If the responsibility, is to be shared, please state the basis on which that responsibility will be shared? If rectifying the existing "bugs" is to become a Contractor responsibility, the nature, extent, and anticipated costs of curing those "bugs" must be disclosed so that the potential Contractor can incorporate those costs and operational responsibilities into his response.
Answer: See 27 above.

30. It also appears that the COA may have retained Lockwood, Andrews & Newman, Inc., to upgrade the LFGS and landfill gas control plan. What is the status of this work? If the upgrade and the plan have been finalized, please make a copy of each available. Hs the LFGCS actually been upgraded in accordance with the contract with Lockwood Andrews 7 Newman, Inc.? If it has not, will this be a COA responsibility or a Contractor responsibility?
Answer: Lockwood Andrews and Newman completed this work. Project manuals and construction drawings, which were made available to all contractors during the review period.

31. The RFP indicates that the COA is in the process of installing a landfill leachate collection system. Please describe the extent of that system; where on the landfill will it be? What is to be done with the leachate removed by the system?
Answer: The system is described in the Leachate Interceptor Project Manual and construction drawings, which were made available to all contractors during the review period. See 32 below.

32. 30 TAC 330.5(e)(6)A)(ii) restricts disposal of leachate and landfill gas condensate only to the landfill unit from which it is derived provided the liner system is a composite liner as defined in 330.200(a)(2) and (b). Where is the leachate and landfill gas condensate currently produced at the landfill being disposed? Is disposal of leachate and landfill gas to become the responsibility of the Contractor or will the city retain that responsibility? Will the COA accept the leachate and landfill gas at one of its POTWs? If so, what are the pretreatment requirement and what is the cost? Does the COA Solid Waste Department have an interdepartmental agreement with the Water and Wastewater Department for no cost or reduced cost disposal of leachate and gas condensate at the city's POTWs?
Answer: The COA will consider proposal concerning future disposal of Leachate and landfill gas condensate. No, Solid Waste Services Department does not have an agreement with Austin Water Utility concerning disposal of Leachate and landfill gas condensate.

33. Is any part of the Subtitle D liner system at the FM 812 Landfill an Alternate Liner as that liner system described in 30 TAC 330.200(a)(1)? If so, where in the landfills have alternate liners been installed and what is the acreage of each area in which an alternate liner has been installed? If portions of the FM 812 Landfill have an Alternate Liner, do those portions also have an approved leachate collection system? What is the status of the Alternate Liner demonstration prepared by Maxim Technologies, Inc., in 1997?
Answer: Yes to all. See attached correspondence from TCEQ.

34. Is any part of the groundwater monitoring system in Assessment Monitoring, as defined in 30 TAC 330.235, in Assessment of Corrective Action or Selection of a Remedy, as defined in 30 TAC 330.236 and 330.237, or in Implementation of a Corrective Action Program, as defined in 30 TAC 330.238? Do all monitoring wells installed at the FM 812 Landfill comply with 30 TAC 330.242?
Answer: Yes, part of the ground monitoring system is in Assessment Monitoring.

35. Since the FM 812 Landfill is a Type I landfill operating as a Type IV Landfill, please provide any correspondence between the COA and the TCEQ concerning operation of the landfill; e.g., does correspondence between the COA and TCEQ allow acceptance of non-putrescible special waste at the landfill (see 30 TAC 330.2 and 330.136), are the wider buffer zones between a Type IV landfill and a public highway now required for continued disposal of Type IV waste (see 30 TAC 330.41(e), etc?
Answer: See attached letters, memos and correspondence from TCEQ.

36. Is the FM 812 Landfill subject to any current enforcement action by TCEQ? If so, please provide the relevant documents?
Answer: No, the FM 812 Landfill is not under current enforcement action by TCEQ.

37. Does the COA, and by inference the potential Contractor, have the legal right and/or the legal obligation to remove silt emanating from the FM 812 Landfill into Onion Creek?
Answer: If necessary, the COA will take appropriate steps to protect the watershed.

38. At the pre-proposal conference on March 26, it was stated that the COA is working with Travis County to address erosion issues along the portion of Onion Creek bounding the FM 812 Landfill. Please provide the specific documents that address that issue and state exactly how the potential Contractor could be affected from an operational and revenue standpoint?
Answer: The COA will consult with Travis County during the design of the upcoming gabion repair project.

39. It appears that monitoring well MW-10 indicates a release of nitrate-bearing water from the landfill. What is the status of the COA's response to this release and will this continue to be a COA responsibility or will it become a Contractor responsibility? Has the COA completed the corrective measures study? Has the COA prepared a cost estimate, established financial assurance, and requested a permit modification as required by TCEQ?
Answer: See 34 above.

40. Does the designated disposal area for asbestos received at the FM 812 Landfill meet all applicable requirements, especially with respect to set-backs and distances from sideslopes and below final cover?
Answer: Yes.

Financial Issues

41. Did the COA receive compensation from the FAA for early closure of the Landfill as a Type I facility, and if so, is that money, available to offset Contractor expenses for continued operation of the landfill as a Type IV facility, remediation issues and/or for Closure and Post-Closure Care.
Answer: The Solid Waste Services Department did not receive compensation from FAA. There is no money available to offset contractor expenses.

42. Is there any contractual relationship or other form of agreement between the COA as owner of the FM 812 Landfill and the neighboring Type IV Landfill owned/operated by IESI for receipt or provision of soil, any exchange of waste disposal capacity, maximum height issues that could affect continued operation of the FM 812 Landfill and potential revenues received by the potential Contractor from continued operation of the landfill?
Answer: No.

43. Based on the mandatory pre-proposal conference, the COA expects the Contractor to manage recyclables dropped off at the FM 812 Landfill at no cost to the public. Will the

COA please provide a record of the kind and amounts of recyclables received at the landfill on an annual basis for the past five years? How does the potential Contractor recoup costs of managing the recyclables? Does the COA compensate the contractor for any monetary losses experienced through management of these recyclables?
Answer: Data for types and amounts of recyclables between January 1999 and February 2004 are attached. The COA is not compensating vendor.

44. The RFP indicates that the Contractor will be responsible for honoring past commitments to BFI for management of bulky items. Please provide a copy of the contract or agreement between the COA and BFI and identify what the credit balance of 175,000 means.
Answer: Copies of these documents were made available to all contractors during the review period.

45. The Solid Waste Department and Austin Energy apparently have an agreement concerning collection and sale of landfill gas. Please provide a copy of that agreement or those agreements.
Answer: The Distributed Generation unit is a proto-type. Information pertaining to the proto-type is confidential and cannot be released at this time.

ATTACHMENT 27

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

March 9, 1998

Mr. Donald W. Ward, P.E.,
Austin Disposal Services Manager
P.O. Box 1088
Austin, Texas 78767

Re: Municipal Solid Waste - Travis County
City of Austin - Permit No. MSW-360A
FM-812 at FM-973

Dear Mr. Ward:

This is in response to your letter, dated January 30, 1998, indicating that an error was discovered during the preparation and approval of a modification approved in 1994 for a change in contours of Area B of the subject landfill. The review of this matter revealed that to correct the error a modification to the Site Development Plan (SDP) of the subject permit would be necessary. The requested modification is to change some areas of the landfill that were marked "Areas to be Removed from the Permit" in the 1994 modification to "Unused Non-Subtitle D Areas". This request has been reviewed and the circumstances related to the revision to the final contours of Area B. It was noted that the areas to be removed from the permit in 1994 were used to compensate for the increase in capacity of Area B with its increased contours. It was also noted that the areas removed were included in the Closure Plan as non-fill areas thereby reducing the disposal fill volume of this site. Unfortunately, once a landfill has voluntarily reduce its disposal fill area, that fill volume is lost and can only be regained by a major permit amendment.

The request to modify the SDP of Permit No. MSW-360A by correcting the Site Layout Map and gain additional lost disposal fill volume is hereby denied. This request may be resubmitted as a major amendment to the permit.

If you have any questions concerning this letter or if we may be of any assistance to you regarding municipal solid waste, you may contact Mr. Michael D. Graeber, P.E., at MC-124, P.O. Box 13087, Austin, Texas 78711; telephone number (512) 239-6671.

Sincerely,

Susan H. Janek

Susan H. Janek, P.E., Manager
Regulatory Section
Municipal Solid Waste Division

SHJ/MDG/mdg

cc: TNRCC Region 11

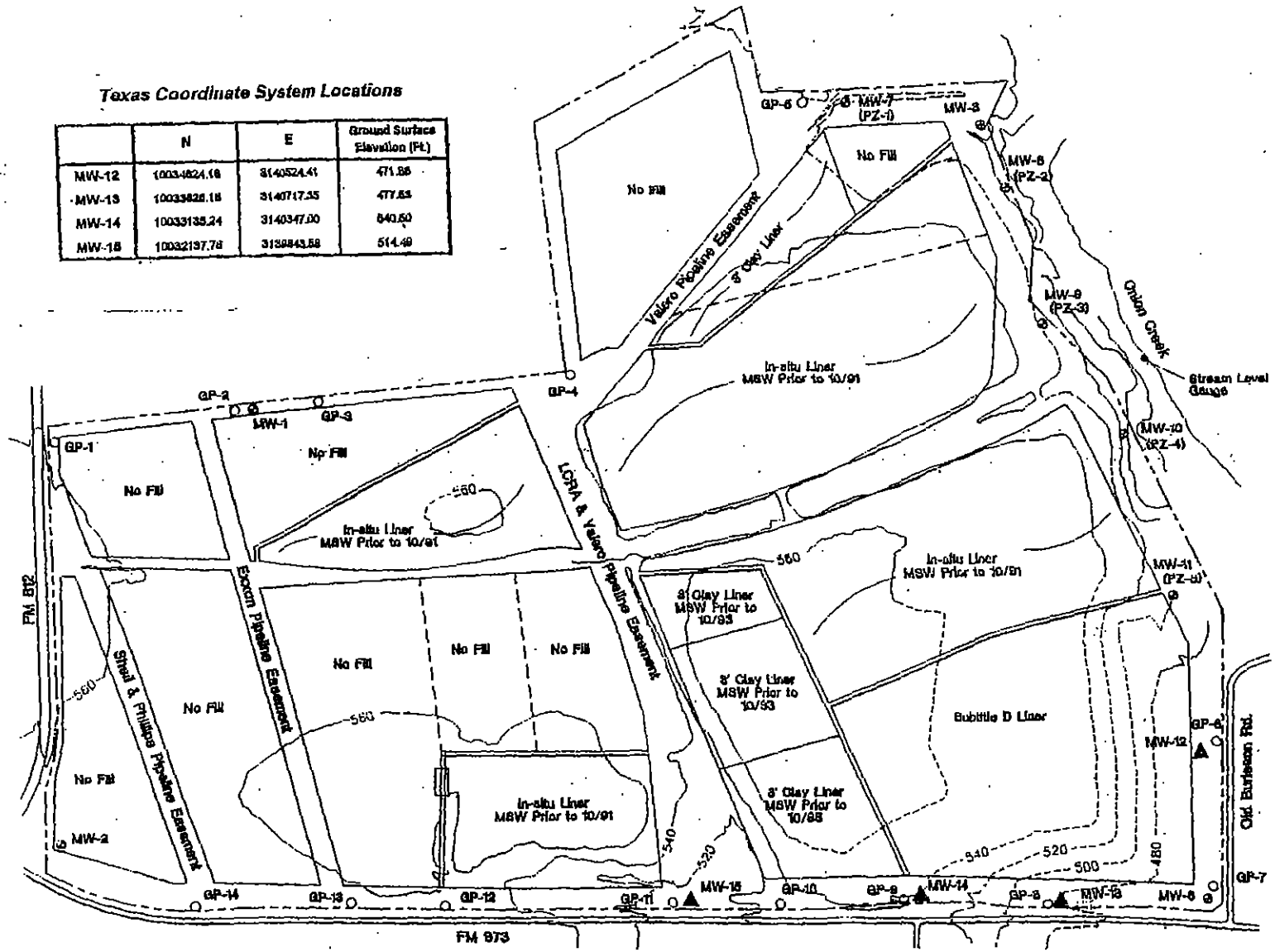
Trinity Engineering Testing Corporation

Monitor Well Installation
CITY of AUSTIN - F.M. 812 LANDFILL
AUSTIN, TEXAS

MONITOR WELL LOCATIONS
May, 2000 PLATE I

Texas Coordinate System Locations

	N	E	Ground Surface Elevation (Ft)
MW-12	10034824.16	3140524.41	471.86
MW-13	10033828.18	3140717.35	477.83
MW-14	10033135.24	3140347.00	540.50
MW-15	10032197.78	3139843.58	514.49

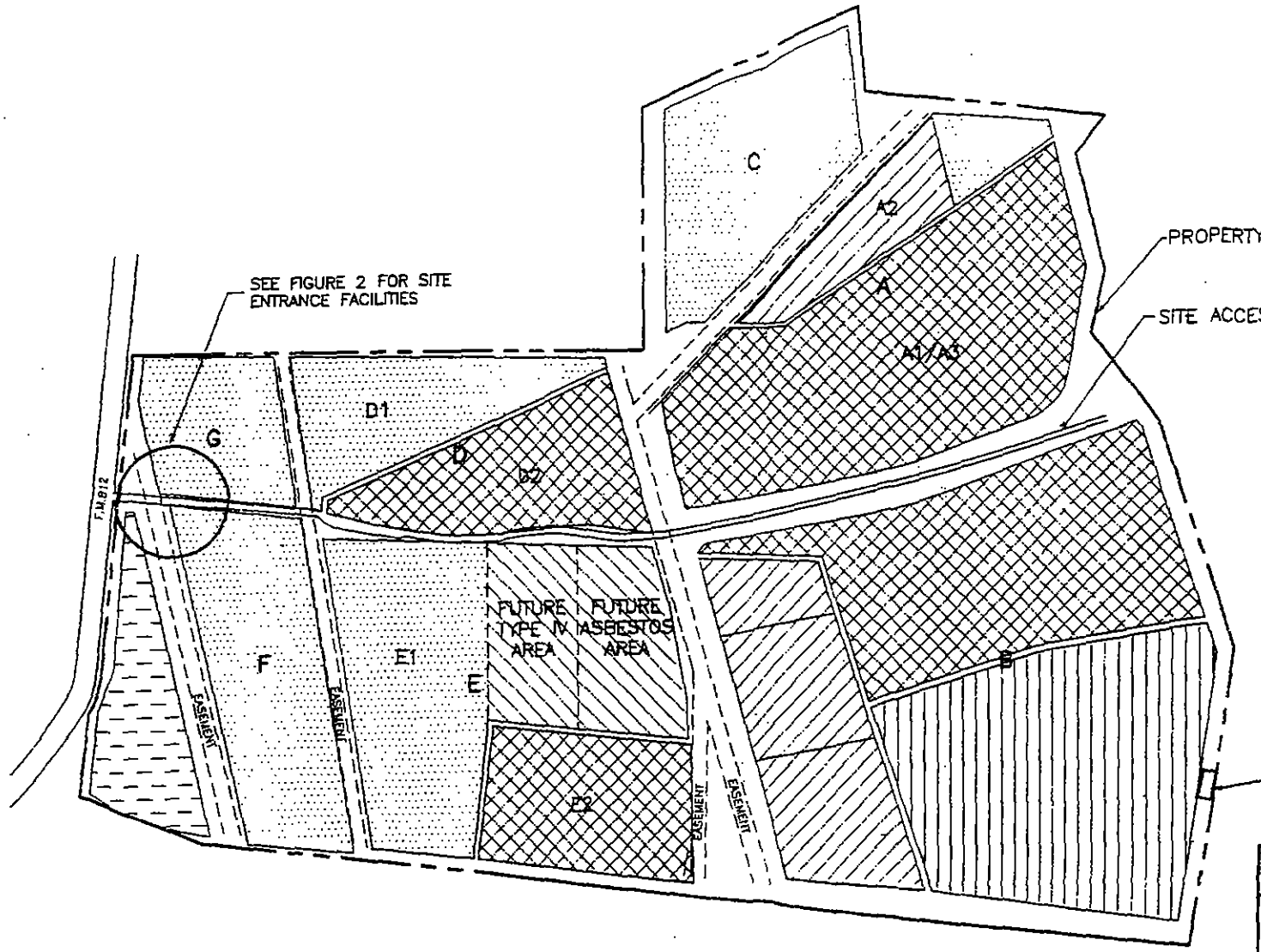


NOTE: Plan modified from drawing provided by HBC Engineering, Inc. Figure 14 Ref# 96997310 - A2

LEGEND

- Permit Boundary
- Existing 20' Contours
- Proposed Final Contours
- Monitoring Well Locations
- Gas Monitoring Probe Locations
- New Monitoring Well Locations (installed 4-11-00 thru 4-18-00)

SCALE: 1" = 500'



STATE OF TEXAS
CYNTHIA C. LANCASTER
72198
REGISTERED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CYNTHIA C. LANCASTER P.E. 72198, ON 4-5 1994

LEGEND

- PRE SUBTITLE D
- ACTIVE SUBTITLE D (PRIOR TO 10/9/93)
- AREAS TO BE REMOVED FROM PERMIT
- FILLING NOT ALLOWED
- SUBTITLE D (AFTER 10/9/93)
- UNUSED NON SUBTITLE D AREA

SOURCE: SECTORIZED FILL LAYOUT, ATTACHMENT NO. 6, SANITARY LANDFILL PERMIT APPLICATION HENNINGSON, DURHAM & RICHARDSON, JULY, 1983

SWL SOUTHWESTERN LABORATORIES

CITY OF AUSTIN
F.M. 812 LANDFILL
MSW PERMIT NO. 360-A
TRAVIS COUNTY, TEXAS

SWL Reference No. 506594-103	SITE LAYOUT MAP	FIGURE 1
DWG NO: 94103141		
DATE ISSUED: 03-24-94		

ATTACHMENT 28

TITLE 42--THE PUBLIC HEALTH AND WELFARE
CHAPTER 103--COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY
SUBCHAPTER I--HAZARDOUS SUBSTANCES RELEASES, LIABILITY, COMPENSATION
Sec. 9607. Liability

(a) Covered persons; scope; recoverable costs and damages; interest rate; ``comparable maturity'' date

Notwithstanding any other provision or rule of law, and subject only to the defenses set forth in subsection (b) of this section--

(1) the owner and operator of a vessel or a facility,

(2) any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of,

(3) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances, and

(4) any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities, incineration vessels or sites selected by such person, from which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance, shall be liable for--

(A) all costs of removal or remedial action incurred by the United States Government or a State or an Indian tribe not inconsistent with the national contingency plan;

(B) any other necessary costs of response incurred by any other person consistent with the national contingency plan;

(C) damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction, or loss resulting from such a release; and

(D) the costs of any health assessment or health effects study carried out under section 9604(i) of this title.

The amounts recoverable in an action under this section shall include interest on the amounts recoverable under subparagraphs (A) through (D). Such interest shall accrue from the later of (i) the date payment of a specified amount is demanded in writing, or (ii) the date of the expenditure concerned. The rate of interest on the outstanding unpaid balance of the amounts recoverable under this section shall be the same rate as is specified for interest on investments of the Hazardous Substance Superfund established under subchapter A of chapter 98 of title 26. For purposes of applying such amendments to interest under

this subsection, the term ``comparable maturity'' shall be determined with reference to the date on which interest accruing under this subsection commences.

(b) Defenses

There shall be no liability under subsection (a) of this section for a person otherwise liable who can establish by a preponderance of the evidence that the release or threat of release of a hazardous substance and the damages resulting therefrom were caused solely by--

(1) an act of God;

(2) an act of war;

(3) an act or omission of a third party other than an employee or agent of the defendant, or than one whose act or omission occurs in connection with a contractual relationship, existing directly or indirectly, with the defendant (except where the sole contractual arrangement arises from a published tariff and acceptance for carriage by a common carrier by rail), if the defendant establishes by a preponderance of the evidence that (a) he exercised due care with respect to the hazardous substance concerned, taking into consideration the characteristics of such hazardous substance, in light of all relevant facts and circumstances, and (b) he took precautions against foreseeable acts or omissions of any such third party and the consequences that could foreseeably result from such acts or omissions; or

(4) any combination of the foregoing paragraphs.

(c) Determination of amounts

(1) Except as provided in paragraph (2) of this subsection, the liability under this section of an owner or operator or other responsible person for each release of a hazardous substance or incident involving release of a hazardous substance shall not exceed--

(A) for any vessel, other than an incineration vessel, which carries any hazardous substance as cargo or residue, $300 per gross ton, or $5,000,000, whichever is greater;

(B) for any other vessel, other than an incineration vessel, $300 per gross ton, or $500,000, whichever is greater;

(C) for any motor vehicle, aircraft, hazardous liquid pipeline facility (as defined in section 60101(a) of title 49), or rolling stock, $50,000,000 or such lesser amount as the President shall establish by regulation, but in no event less than $5,000,000 (or, for releases of hazardous substances as defined in section 9601(14)(A) of this title into the navigable waters, $8,000,000). Such regulations shall take into account the size, type, location, storage, and handling capacity and other matters relating to the likelihood of release in each such class and to the economic impact of such limits on each such class; or

(D) for any incineration vessel or any facility other than those specified in subparagraph (C) of this paragraph, the total of all costs of response plus $50,000,000 for any damages under this subchapter.

(2) Notwithstanding the limitations in paragraph (1) of this subsection, the liability of an owner or operator or other responsible person under this section shall be the full and total costs of response and damages, if (A)(i) the release or threat of release of a hazardous substance was the result of willful misconduct or willful negligence

within the privity or knowledge of such person, or (ii) the primary cause of the release was a violation (within the privity or knowledge of such person) of applicable safety, construction, or operating standards or regulations; or (B) such person fails or refuses to provide all reasonable cooperation and assistance requested by a responsible public official in connection with response activities under the national contingency plan with respect to regulated carriers subject to the provisions of title 49 or vessels subject to the provisions of title 33, 46, or 46 Appendix, subparagraph (A)(ii) of this paragraph shall be deemed to refer to Federal standards or regulations.

(3) If any person who is liable for a release or threat of release of a hazardous substance fails without sufficient cause to properly provide removal or remedial action upon order of the President pursuant to section 9604 or 9606 of this title, such person may be liable to the United States for punitive damages in an amount at least equal to, and not more than three times, the amount of any costs incurred by the Fund as a result of such failure to take proper action. The President is authorized to commence a civil action against any such person to recover the punitive damages, which shall be in addition to any costs recovered from such person pursuant to section 9612(c) of this title. Any moneys received by the United States pursuant to this subsection shall be deposited in the Fund.

(d) Rendering care or advice

(1) In general

Except as provided in paragraph (2), no person shall be liable under this subchapter for costs or damages as a result of actions taken or omitted in the course of rendering care, assistance, or advice in accordance with the National Contingency Plan (``NCP'') or at the direction of an onscene coordinator appointed under such plan, with respect to an incident creating a danger to public health or welfare or the environment as a result of any releases of a hazardous substance or the threat thereof. This paragraph shall not preclude liability for costs or damages as the result of negligence on the part of such person.

(2) State and local governments

No State or local government shall be liable under this subchapter for costs or damages as a result of actions taken in response to an emergency created by the release or threatened release of a hazardous substance generated by or from a facility owned by another person. This paragraph shall not preclude liability for costs or damages as a result of gross negligence or intentional misconduct by the State or local government. For the purpose of the preceding sentence, reckless, willful, or wanton misconduct shall constitute gross negligence.

(3) Savings provision

This subsection shall not alter the liability of any person covered by the provisions of paragraph (1), (2), (3), or (4) of subsection (a) of this section with respect to the release or threatened release concerned.

(e) Indemnification, hold harmless, etc., agreements or conveyances; subrogation rights

(1) No indemnification, hold harmless, or similar agreement or conveyance shall be effective to transfer from the owner or operator of any vessel or facility or from any person who may be liable for a release or threat of release under this section, to any other person the liability imposed under this section. Nothing in this subsection shall bar any agreement to insure, hold harmless, or indemnify a party to such agreement for any liability under this section.

(2) Nothing in this subchapter, including the provisions of paragraph (1) of this subsection, shall bar a cause of action that an owner or operator or any other person subject to liability under this section, or a guarantor, has or would have, by reason of subrogation or otherwise against any person.

(f) Natural resources liability; designation of public trustees of natural resources

(1) Natural resources liability

In the case of an injury to, destruction of, or loss of natural resources under subparagraph (C) of subsection (a) of this section liability shall be to the United States Government and to any State for natural resources within the State or belonging to, managed by, controlled by, or appertaining to such State and to any Indian tribe for natural resources belonging to, managed by, controlled by, or appertaining to such tribe, or held in trust for the benefit of such tribe, or belonging to a member of such tribe if such resources are subject to a trust restriction on alienation: Provided, however, That no liability to the United States or State or Indian tribe shall be imposed under subparagraph (C) of subsection (a) of this section, where the party sought to be charged has demonstrated that the damages to natural resources complained of were specifically identified as an irreversible and irretrievable commitment of natural resources in an environmental impact statement, or other comparable environment analysis, and the decision to grant a permit or license authorizes such commitment of natural resources, and the facility or project was otherwise operating within the terms of its permit or license, so long as, in the case of damages to an Indian tribe occurring pursuant to a Federal permit or license, the issuance of that permit or license was not inconsistent with the fiduciary duty of the United States with respect to such Indian tribe. The President, or the authorized representative of any State, shall act on behalf of the public as trustee of such natural resources to recover for such damages. Sums recovered by the United States Government as trustee under this subsection shall be retained by the trustee, without further appropriation, for use only to restore, replace, or acquire the equivalent of such natural resources. Sums recovered by a State as trustee under this subsection shall be available for use only to restore, replace, or acquire the equivalent of such natural resources by the State. The measure of damages in any action under subparagraph (C) of subsection (a) of this section shall not be limited by the sums which can be used to restore or replace such resources. There shall be no double recovery under this chapter for natural resource damages, including the costs of damage assessment or restoration, rehabilitation, or acquisition for the same release and natural resource. There shall be no recovery under the authority of subparagraph (C) of subsection (a) of this section where such

damages and the release of a hazardous substance from which such damages resulted have occurred wholly before December 11, 1980.

(2) Designation of Federal and State officials

(A) Federal

The President shall designate in the National Contingency Plan published under section 9605 of this title the Federal officials who shall act on behalf of the public as trustees for natural resources under this chapter and section 1321 of title 33. Such officials shall assess damages for injury to, destruction of, or loss of natural resources for purposes of this chapter and such section 1321 of title 33 for those resources under their trusteeship and may, upon request of and reimbursement from a State and at the Federal officials' discretion, assess damages for those natural resources under the State's trusteeship.

(B) State

The Governor of each State shall designate State officials who may act on behalf of the public as trustees for natural resources under this chapter and section 1321 of title 33 and shall notify the President of such designations. Such State officials shall assess damages to natural resources for the purposes of this chapter and such section 1321 of title 33 for those natural resources under their trusteeship.

(C) Rebuttable presumption

Any determination or assessment of damages to natural resources for the purposes of this chapter and section 1321 of title 33 made by a Federal or State trustee in accordance with the regulations promulgated under section 9651(c) of this title shall have the force and effect of a rebuttable presumption on behalf of the trustee in any administrative or judicial proceeding under this chapter or section 1321 of title 33.

(g) Federal agencies

For provisions relating to Federal agencies, see section 9620 of this title.

(h) Owner or operator of vessel

The owner or operator of a vessel shall be liable in accordance with this section, under maritime tort law, and as provided under section 9614 of this title notwithstanding any provision of the Act of March 3, 1851 (46 U.S.C. 183ff) [46 App. U.S.C. 182, 183, 184-188] or the absence of any physical damage to the proprietary interest of the claimant.

(i) Application of a registered pesticide product

No person (including the United States or any State or Indian tribe) may recover under the authority of this section for any response costs or damages resulting from the application of a pesticide product registered under the Federal Insecticide, Fungicide, and Rodenticide Act [7 U.S.C. 136 et seq.]. Nothing in this paragraph shall affect or modify

in any way the obligations or liability of any person under any other provision of State or Federal law, including common law, for damages, injury, or loss resulting from a release of any hazardous substance or for removal or remedial action or the costs of removal or remedial action of such hazardous substance.

(j) Obligations or liability pursuant to federally permitted release

Recovery by any person (including the United States or any State or Indian tribe) for response costs or damages resulting from a federally permitted release shall be pursuant to existing law in lieu of this section. Nothing in this paragraph shall affect or modify in any way the obligations or liability of any person under any other provision of State or Federal law, including common law, for damages, injury, or loss resulting from a release of any hazardous substance or for removal or remedial action or the costs of removal or remedial action of such hazardous substance. In addition, costs of response incurred by the Federal Government in connection with a discharge specified in section 9601(10)(B) or (C) of this title shall be recoverable in an action brought under section 1319(b) of title 33.

(k) Transfer to, and assumption by, Post-Closure Liability Fund of liability of owner or operator of hazardous waste disposal facility in receipt of permit under applicable solid waste disposal law; time, criteria applicable, procedures, etc.; monitoring costs; reports

(1) The liability established by this section or any other law for the owner or operator of a hazardous waste disposal facility which has received a permit under subtitle C of the Solid Waste Disposal Act [42 U.S.C. 6921 et seq.], shall be transferred to and assumed by the Post-closure Liability Fund established by section 9641 \1\ of this title when--

---

\1\See References in Text note below.

(A) such facility and the owner and operator thereof has complied with the requirements of subtitle C of the Solid Waste Disposal Act [42 U.S.C. 6921 et seq.] and regulations issued thereunder, which may affect the performance of such facility after closure; and

(B) such facility has been closed in accordance with such regulations and the conditions of such permit, and such facility and the surrounding area have been monitored as required by such regulations and permit conditions for a period not to exceed five years after closure to demonstrate that there is no substantial likelihood that any migration offsite or release from confinement of any hazardous substance or other risk to public health or welfare will occur.

(2) Such transfer of liability shall be effective ninety days after the owner or operator of such facility notifies the Administrator of the Environmental Protection Agency (and the State where it has an authorized program under section 3006(b) of the Solid Waste Disposal Act [42 U.S.C. 6926(b)]) that the conditions imposed by this subsection have been satisfied. If within such ninety-day period the Administrator of the Environmental Protection Agency or such State determines that any such facility has not complied with all the conditions imposed by this

subsection or that insufficient information has been provided to demonstrate such compliance, the Administrator or such State shall so notify the owner and operator of such facility and the administrator of the Fund established by section 9641 \1\ of this title, and the owner and operator of such facility shall continue to be liable with respect to such facility under this section and other law until such time as the Administrator and such State determines that such facility has complied with all conditions imposed by this subsection. A determination by the Administrator or such State that a facility has not complied with all conditions imposed by this subsection or that insufficient information has been supplied to demonstrate compliance, shall be a final administrative action for purposes of judicial review. A request for additional information shall state in specific terms the data required.

(3) In addition to the assumption of liability of owners and operators under paragraph (1) of this subsection, the Post-closure Liability Fund established by section 9641 \1\ of this title may be used to pay costs of monitoring and care and maintenance of a site incurred by other persons after the period of monitoring required by regulations under subtitle C of the Solid Waste Disposal Act [42 U.S.C. 6921 et seq.] for hazardous waste disposal facilities meeting the conditions of paragraph (1) of this subsection.

(4)(A) Not later than one year after December 11, 1980, the Secretary of the Treasury shall conduct a study and shall submit a report thereon to the Congress on the feasibility of establishing or qualifying an optional system of private insurance for postclosure financial responsibility for hazardous waste disposal facilities to which this subsection applies. Such study shall include a specification of adequate and realistic minimum standards to assure that any such privately placed insurance will carry out the purposes of this subsection in a reliable, enforceable, and practical manner. Such a study shall include an examination of the public and private incentives, programs, and actions necessary to make privately placed insurance a practical and effective option to the financing system for the Post-closure Liability Fund provided in subchapter II \1\ of this chapter.

(B) Not later than eighteen months after December 11, 1980, and after a public hearing, the President shall by rule determine whether or not it is feasible to establish or qualify an optional system of private insurance for postclosure financial responsibility for hazardous waste disposal facilities to which this subsection applies. If the President determines the establishment or qualification of such a system would be infeasible, he shall promptly publish an explanation of the reasons for such a determination. If the President determines the establishment or qualification of such a system would be feasible, he shall promptly publish notice of such determination. Not later than six months after an affirmative determination under the preceding sentence and after a public hearing, the President shall by rule promulgate adequate and realistic minimum standards which must be met by any such privately placed insurance, taking into account the purposes of this chapter and this subsection. Such rules shall also specify reasonably expeditious procedures by which privately placed insurance plans can qualify as meeting such minimum standards.

(C) In the event any privately placed insurance plan qualifies under subparagraph (B), any person enrolled in, and complying with the terms of, such plan shall be excluded from the provisions of paragraphs (1), (2), and (3) of this subsection and exempt from the requirements to pay any tax or fee to the Post-closure Liability Fund under subchapter II \1\ of this chapter.

(D) The President may issue such rules and take such other actions as are necessary to effectuate the purposes of this paragraph.

(5) Suspension of liability transfer.--Notwithstanding paragraphs (1), (2), (3), and (4) of this subsection and subsection (j) of section 9611 of this title, no liability shall be transferred to or assumed by the Post-Closure Liability Trust Fund established by section 9641 \1\ of this title prior to completion of the study required under paragraph (6) of this subsection, transmission of a report of such study to both Houses of Congress, and authorization of such a transfer or assumption by Act of Congress following receipt of such study and report.

(6) Study of options for post-closure program.--

(A) Study.--The Comptroller General shall conduct a study of options for a program for the management of the liabilities associated with hazardous waste treatment, storage, and disposal sites after their closure which complements the policies set forth in the Hazardous and Solid Waste Amendments of 1984 and assures the protection of human health and the environment.

(B) Program elements.--The program referred to in subparagraph (A) shall be designed to assure each of the following:

(i) Incentives are created and maintained for the safe management and disposal of hazardous wastes so as to assure protection of human health and the environment.

(ii) Members of the public will have reasonable confidence that hazardous wastes will be managed and disposed of safely and that resources will be available to address any problems that may arise and to cover costs of long-term monitoring, care, and maintenance of such sites.

(iii) Persons who are or seek to become owners and operators of hazardous waste disposal facilities will be able to manage their potential future liabilities and to attract the investment capital necessary to build, operate, and close such facilities in a manner which assures protection of human health and the environment.

(C) Assessments.--The study under this paragraph shall include assessments of treatment, storage, and disposal facilities which have been or are likely to be issued a permit under section 3005 of the Solid Waste Disposal Act [42 U.S.C. 6925] and the likelihood of future insolvency on the part of owners and operators of such facilities. Separate assessments shall be made for different classes of facilities and for different classes of land disposal facilities and shall include but not be limited to--

(i) the current and future financial capabilities of facility owners and operators;

(ii) the current and future costs associated with facilities, including the costs of routine monitoring and maintenance, compliance monitoring, corrective action, natural resource damages, and liability for damages to third parties; and

(iii) the availability of mechanisms by which owners and operators of such facilities can assure that current and future costs, including post-closure costs, will be financed.

(D) Procedures.--In carrying out the responsibilities of this paragraph, the Comptroller General shall consult with the Administrator, the Secretary of Commerce, the Secretary of the Treasury, and the heads of other appropriate Federal agencies.

(E) Consideration of options.--In conducting the study under

this paragraph, the Comptroller General shall consider various mechanisms and combinations of mechanisms to complement the policies set forth in the Hazardous and Solid Waste Amendments of 1984 to serve the purposes set forth in subparagraph (B) and to assure that the current and future costs associated with hazardous waste facilities, including post-closure costs, will be adequately financed and, to the greatest extent possible, borne by the owners and operators of such facilities. Mechanisms to be considered include, but are not limited to--

(i) revisions to closure, post-closure, and financial responsibility requirements under subtitles C and I of the Solid Waste Disposal Act [42 U.S.C. 6921 et seq., 6991 et seq.];

(ii) voluntary risk pooling by owners and operators;

(iii) legislation to require risk pooling by owners and operators;

(iv) modification of the Post-Closure Liability Trust Fund previously established by section 9641 \2\ of this title, and the conditions for transfer of liability under this subsection, including limiting the transfer of some or all liability under this subsection only in the case of insolvency of owners and operators;

\2\ See References in Text note below.

(v) private insurance;

(vi) insurance provided by the Federal Government;

(vii) coinsurance, reinsurance, or pooled-risk insurance, whether provided by the private sector or provided or assisted by the Federal Government; and

(viii) creation of a new program to be administered by a new or existing Federal agency or by a federally chartered corporation.

(F) Recommendations.--The Comptroller General shall consider options for funding any program under this section and shall, to the extent necessary, make recommendations to the appropriate committees of Congress for additional authority to implement such program.

(l) Federal lien

(1) In general

All costs and damages for which a person is liable to the United States under subsection (a) of this section (other than the owner or operator of a vessel under paragraph (1) of subsection (a) of this section) shall constitute a lien in favor of the United States upon all real property and rights to such property which--

(A) belong to such person; and

(B) are subject to or affected by a removal or remedial action.

(2) Duration

The lien imposed by this subsection shall arise at the later of the following:

(A) The time costs are first incurred by the United States with respect to a response action under this chapter.

(B) The time that the person referred to in paragraph (1) is

provided (by certified or registered mail) written notice of potential liability.

Such lien shall continue until the liability for the costs (or a judgment against the person arising out of such liability) is satisfied or becomes unenforceable through operation of the statute of limitations provided in section 9613 of this title.

(3) Notice and validity

The lien imposed by this subsection shall be subject to the rights of any purchaser, holder of a security interest, or judgment lien creditor whose interest is perfected under applicable State law before notice of the lien has been filed in the appropriate office within the State (or county or other governmental subdivision), as designated by State law, in which the real property subject to the lien is located. Any such purchaser, holder of a security interest, or judgment lien creditor shall be afforded the same protections against the lien imposed by this subsection as are afforded under State law against a judgment lien which arises out of an unsecured obligation and which arises as of the time of the filing of the notice of the lien imposed by this subsection. If the State has not by law designated one office for the receipt of such notices of liens, the notice shall be filed in the office of the clerk of the United States district court for the district in which the real property is located. For purposes of this subsection, the terms ``purchaser'' and ``security interest'' shall have the definitions provided under section 6323(h) of title 26.

(4) Action in rem

The costs constituting the lien may be recovered in an action in rem in the United States district court for the district in which the removal or remedial action is occurring or has occurred. Nothing in this subsection shall affect the right of the United States to bring an action against any person to recover all costs and damages for which such person is liable under subsection (a) of this section.

(m) Maritime lien

All costs and damages for which the owner or operator of a vessel is liable under subsection (a)(1) of this section with respect to a release or threatened release from such vessel shall constitute a maritime lien in favor of the United States on such vessel. Such costs may be recovered in an action in rem in the district court of the United States for the district in which the vessel may be found. Nothing in this subsection shall affect the right of the United States to bring an action against the owner or operator of such vessel in any court of competent jurisdiction to recover such costs.

(n) Liability of fiduciaries

(1) In general

The liability of a fiduciary under any provision of this chapter for the release or threatened release of a hazardous substance at, from, or in connection with a vessel or facility held in a fiduciary capacity shall not exceed the assets held in the fiduciary capacity.

(2) Exclusion

Paragraph (1) does not apply to the extent that a person is liable under this chapter independently of the person's ownership of a vessel or facility as a fiduciary or actions taken in a fiduciary capacity.

(3) Limitation

Paragraphs (1) and (4) do not limit the liability pertaining to a release or threatened release of a hazardous substance if negligence of a fiduciary causes or contributes to the release or threatened release.

(4) Safe harbor

A fiduciary shall not be liable in its personal capacity under this chapter for--

(A) undertaking or directing another person to undertake a response action under subsection (d)(1) of this section or under the direction of an on scene coordinator designated under the National Contingency Plan;

(B) undertaking or directing another person to undertake any other lawful means of addressing a hazardous substance in connection with the vessel or facility;

(C) terminating the fiduciary relationship;

(D) including in the terms of the fiduciary agreement a covenant, warranty, or other term or condition that relates to compliance with an environmental law, or monitoring, modifying or enforcing the term or condition;

(E) monitoring or undertaking 1 or more inspections of the vessel or facility;

(F) providing financial or other advice or counseling to other parties to the fiduciary relationship, including the settlor or beneficiary;

(G) restructuring, renegotiating, or otherwise altering the terms and conditions of the fiduciary relationship;

(H) administering, as a fiduciary, a vessel or facility that was contaminated before the fiduciary relationship began; or

(I) declining to take any of the actions described in subparagraphs (B) through (H).

(5) Definitions

As used in this chapter:

(A) Fiduciary

The term ``fiduciary''--

(i) means a person acting for the benefit of another party as a bona fide--

(I) trustee;

(II) executor;

(III) administrator;

(IV) custodian;

(V) guardian of estates or guardian ad litem;

(VI) receiver;

(VII) conservator;

(VIII) committee of estates of incapacitated persons;

(IX) personal representative;

(X) trustee (including a successor to a trustee) under an indenture agreement, trust agreement, lease, or similar financing agreement, for debt securities, certificates of interest or certificates of participation in debt securities, or other forms of indebtedness as to which the trustee is not, in the capacity of trustee, the lender; or

(XI) representative in any other capacity that the Administrator, after providing public notice, determines to be similar to the capacities described in subclauses (I) through (X); and

(ii) does not include--

(I) a person that is acting as a fiduciary with respect to a trust or other fiduciary estate that was organized for the primary purpose of, or is engaged in, actively carrying on a trade or business for profit, unless the trust or other fiduciary estate was created as part of, or to facilitate, 1 or more estate plans or because of the incapacity of a natural person; or

(II) a person that acquires ownership or control of a vessel or facility with the objective purpose of avoiding liability of the person or of any other person.

(B) Fiduciary capacity

The term ``fiduciary capacity'' means the capacity of a person in holding title to a vessel or facility, or otherwise having control of or an interest in the vessel or facility, pursuant to the exercise of the responsibilities of the person as a fiduciary.

(6) Savings clause

Nothing in this subsection--

(A) affects the rights or immunities or other defenses that are available under this chapter or other law that is applicable to a person subject to this subsection; or

(B) creates any liability for a person or a private right of action against a fiduciary or any other person.

(7) No effect on certain persons

Nothing in this subsection applies to a person if the person--

(A)(i) acts in a capacity other than that of a fiduciary or in a beneficiary capacity; and

(ii) in that capacity, directly or indirectly benefits from a trust or fiduciary relationship; or

(B)(i) is a beneficiary and a fiduciary with respect to the same fiduciary estate; and

(ii) as a fiduciary, receives benefits that exceed customary or reasonable compensation, and incidental benefits, permitted under other applicable law.

(8) Limitation

This subsection does not preclude a claim under this chapter against--

(A) the assets of the estate or trust administered by the fiduciary; or

(B) a nonemployee agent or independent contractor retained by a fiduciary.

(Pub. L. 96-510, title I, Sec. 107, Dec. 11, 1980, 94 Stat. 2781; Pub. L. 99-499, title I, Secs. 107(a)-(d)(2), (e), (f), 127(b), (e), title II, Secs. 201, 207(c), Oct. 17, 1986, 100 Stat. 1628-1630, 1692, 1693, 1705; Pub. L. 99-514, Sec. 2, Oct. 22, 1986, 100 Stat. 2095; Pub. L. 103-429, Sec. 7(e)(2), Oct. 31, 1994, 108 Stat. 4390; Pub. L. 104-208, div. A, title II, Sec. 2502(a), Sept. 30, 1996, 110 Stat. 3009-462; Pub. L. 104-287, Sec. 6(j)(2), Oct. 11, 1996, 110 Stat. 3400.)

References in Text

Such amendments, referred to in the last sentence of subsec. (a), probably means the amendments made by Pub. L. 99-499, Oct. 17, 1986, 100 Stat. 1613, known as the ``Superfund Amendments and Reauthorization Act of 1986''. For complete classification of this Act to the Code, see Short Title of 1986 Amendment note set out under section 9601 of this title and Tables.

Act of March 3, 1851 (46 U.S.C. 183ff), referred to in subsec. (h), is act Mar. 3, 1851, ch. 43, 9 Stat. 635, which was incorporated into the Revised Statutes as R.S. Secs. 4282 to 4287 and 4289, and is classified to sections 182, 183, and 184 to 188 of Title 46, Appendix, Shipping.

The Federal Insecticide, Fungicide, and Rodenticide Act, referred to in subsec. (i), is act June 25, 1947, ch. 125, as amended generally by Pub. L. 92-516, Oct. 21, 1972, 86 Stat. 973, which is classified generally to subchapter II (Sec. 136 et seq.) of chapter 6 of Title 7, Agriculture. For complete classification of this Act to the Code, see Short Title note set out under section 136 of Title 7 and Tables.

The Solid Waste Disposal Act, referred to in subsec. (k)(1), (3), (6)(E)(i), is title II of Pub. L. 89-272, Oct. 20, 1965, 79 Stat. 997, as amended generally by Pub. L. 94-580, Sec. 2, Oct. 21, 1976, 90 Stat. 2795. Subtitles C and I of the Solid Waste Disposal Act are classified generally to subchapters III (Sec. 6921 et seq.) and IX (Sec. 6991 et seq.), respectively, of chapter 82 of this title. For complete classification of this Act to the Code, see Short Title note set out under section 6901 of this title and Tables.

Section 9641 of this title, referred to in subsec. (k), was repealed by Pub. L. 99-499, title V, Sec. 514(b), Oct. 17, 1986, 100 Stat. 1767.

Subchapter II of this chapter, referred to in subsec. (k)(4)(A) and (C), was in the original ``title II of this Act'', meaning title II of Pub. L. 96-510, Dec. 11, 1980, 94 Stat. 2796, known as the Hazardous Substance Response Revenue Act of 1980, which enacted subchapter II of this chapter and sections 4611, 4612, 4661, 4662, 4681, and 4682 of Title 26, Internal Revenue Code. Sections 221 to 223 and 232 of Pub. L. 96-510, which were classified to sections 9631 to 9633 and 9641 of this title, comprising subchapter II of this chapter, were repealed by Pub. L. 99-499, title V, Secs. 514(b), 517(c)(1), Oct. 17, 1986, 100 Stat. 1767, 1774. For complete classification of title II to the Code, see Short Title of 1980 Amendment note set out under section 1 of Title 26 and Tables.

The Hazardous and Solid Waste Amendments of 1984, referred to in subsec. (k)(6)(A), (E), is Pub. L. 98-616, Nov. 8, 1984, 98 Stat. 3221.

For complete classification of this Act to the Code, see Short Title of 1984 Amendment note set out under section 6901 of this title and Tables.

Amendments

1996--Subsec. (c)(1)(C). Pub. L. 104-287 substituted ``section 60101(a) of title 49'' for ``the Hazardous Liquid Pipeline Safety Act of 1979''.

Subsec. (n). Pub. L. 104-208 added subsec. (n).

1994--Subsec. (c)(1)(C). Pub. L. 103-429 substituted ``hazardous liquid pipeline facility'' for ``pipeline''.

1986--Subsec. (a). Pub. L. 99-514, in penultimate sentence, substituted ``Internal Revenue Code of 1986'' for ``Internal Revenue Code of 1954'', which for purposes of codification was translated as ``title 26'' thus requiring no change in text.

Pub. L. 99-499, Sec. 107(b), inserted concluding provisions relating to accrual and rate of interest on amounts recoverable under this section.

Subsec. (a)(1). Pub. L. 99-499, Sec. 107(a), struck out ``(otherwise subject to the jurisdiction of the United States)'' after ``vessel''.

Subsec. (a)(3). Pub. L. 99-499, Sec. 127(b)(1), inserted ``or incineration vessel'' after ``facility''.

Subsec. (a)(4). Pub. L. 99-499, Secs. 107(b), 127(b)(2), 207(c)(1), in introductory provisions, inserted ``, incineration vessels'' after ``vessels'', in subpar. (A), inserted ``or an Indian tribe'' after ``State'', and added subpar. (D).

Subsec. (c)(1)(A). Pub. L. 99-499, Sec. 127(b)(3), inserted ``, other than an incineration vessel,'' after ``vessel''.

Subsec. (c)(1)(B). Pub. L. 99-499, Sec. 127(b)(4), inserted ``other than an incineration vessel,'' after ``other vessel,''.

Subsec. (c)(1)(D). Pub. L. 99-499, Sec. 127(b)(5), inserted ``any incineration vessel or'' before ``any facility''.

Subsec. (d). Pub. L. 99-499, Sec. 107(c), amended subsec. (d) generally. Prior to amendment, subsec. (d) read as follows: ``No person shall be liable under this subchapter for damages as a result of actions taken or omitted in the course of rendering care, assistance, or advice in accordance with the national contingency plan or at the direction of an onscene coordinator appointed under such plan, with respect to an incident creating a danger to public health or welfare or the environment as a result of any release of a hazardous substance or the threat thereof. This subsection shall not preclude liability for damages as the result of gross negligence or intentional misconduct on the part of such person. For the purposes of the preceding sentence, reckless, willful, or wanton misconduct shall constitute gross negligence.''

Subsec. (f)(1). Pub. L. 99-499, Sec. 107(d)(1), designated existing provisions as par. (1) and added heading.

Pub. L. 99-499, Sec. 207(c)(2)(A), inserted ``and to any Indian tribe for natural resources belonging to, managed by, controlled by, or appertaining to such tribe, or held in trust for the benefit of such tribe, or belonging to a member of such tribe if such resources are subject to a trust restriction on alienation'' after third reference to ``State''.

Pub. L. 99-499, Sec. 207(c)(2)(B), inserted ``or Indian tribe'' after fourth reference to ``State''.

Pub. L. 99-499, Sec. 207(c)(2)(C), inserted in first sentence ``, so long as, in the case of damages to an Indian tribe occurring pursuant to a Federal permit or license, the issuance of that permit or license was

not inconsistent with the fiduciary duty of the United States with respect to such Indian tribe''.

Pub. L. 99-499, Sec. 107(d)(2), substituted ``Sums recovered by the United States Government as trustee under this subsection shall be retained by the trustee, without further appropriation, for use only to restore, replace, or acquire the equivalent of such natural resources. Sums recovered by a State as trustee under this subsection shall be available for use only to restore, replace, or acquire the equivalent of such natural resources by the State. The measure of damages in any action under subparagraph (C) of subsection (a) of this section shall not be limited by the sums which can be used to restore or replace such resources. There shall be no double recovery under this chapter for natural resource damages, including the costs of damage assessment or restoration, rehabilitation, or acquisition for the same release and natural resource'' for ``Sums recovered shall be available for use to restore, rehabilitate, or acquire the equivalent of such natural resources by the appropriate agencies of the Federal Government or the State government, but the measure of such damages shall not be limited by the sums which can be used to restore or replace such resources''.

Pub. L. 99-499, Sec. 207(c)(2)(D), which directed the insertion of ``or the Indian tribe'' after ``State government'', could not be executed because the prior amendment by section 107(d)(2) of Pub. L. 99-499, struck out third sentence referring to ``State government''.

Subsec. (f)(2). Pub. L. 99-499, Sec. 107(d)(1), added par. (2).

Subsec. (g). Pub. L. 99-499, Sec. 107(e), amended subsec. (g) generally. Prior to amendment, subsec. (g) read as follows: ``Each department, agency, or instrumentality of the executive, legislative, and judicial branches of the Federal Government shall be subject to, and comply with, this chapter in the same manner and to the same extent, both procedurally and substantively, as any nongovernmental entity, including liability under this section.''

Subsec. (h). Pub. L. 99-499, Sec. 127(e), inserted ``, under maritime tort law,'' after ``with this section'' and inserted ``or the absence of any physical damage to the proprietary interest of the claimant'' before the period at end.

Subsec. (i). Pub. L. 99-499, Sec. 207(c)(3), inserted ``or Indian tribe'' after ``State''.

Subsec. (j). Pub. L. 99-499, Sec. 207(c)(4), inserted ``or Indian tribe'' after first reference to ``State''.

Subsec. (k)(5), (6). Pub. L. 99-499, Sec. 201, added pars. (5) and (6).

Subsec. (l), Pub. L. 99-499, Sec. 107(f), added subsec. (l).

Subsec. (l)(3). Pub. L. 99-514 substituted ``Internal Revenue Code of 1986'' for ``Internal Revenue Code of 1954'', which for purposes of codification was translated as ``title 26'' thus requiring no change in text.

Subsec. (m). Pub. L. 99-499, Sec. 107(f), added subsec. (m).

Effective Date of 1996 Amendment

Amendment by Pub. L. 104-208 applicable with respect to any claim that has not been finally adjudicated as of Sept. 30, 1996, see section 2505 of Pub. L. 104-208, set out as a note under section 6991b of this title.

Recovery of Costs

Pub. L. 104-303, title II, Sec. 209, Oct. 12, 1996, 110 Stat. 3681, provided that: ``Amounts recovered under section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9607) for any response action taken by the Secretary in support of the civil works program of the Department of the Army and any other amounts recovered by the Secretary from a contractor, insurer, surety, or other person to reimburse the Department of the Army for any expenditure for environmental response activities in support of the Army civil works program shall be credited to the appropriate trust fund account from which the cost of such response action has been paid or will be charged.''

Coordination of Titles I to IV of Pub. L. 99-499

Any provision of titles I to IV of Pub. L. 99-499, imposing any tax, premium, or fee; establishing any trust fund; or authorizing expenditures from any trust fund, to have no force or effect, see section 531 of Pub. L. 99-499, set out as a note under section 1 of Title 26, Internal Revenue Code.

Section Referred to in Other Sections

This section is referred to in sections 6924, 6939a, 6991b, 6991c, 9601, 9603, 9606, 9608, 9611, 9612, 9613, 9614, 9619, 9620, 9622, 9624, 9627, 9651, 9656, 9658 of this title; title 14 section 692; title 16 sections 1437, 1443; title 26 section 9507.