

**ATASCOCITA RECYCLING AND DISPOSAL FACILITY
HARRIS COUNTY, TEXAS
TCEQ PERMIT APPLICATION NO. MSW 1307D**

PERMIT AMENDMENT APPLICATION

PART IV – SITE OPERATING PLAN

Prepared for

Waste Management of Texas, Inc.

September 2010



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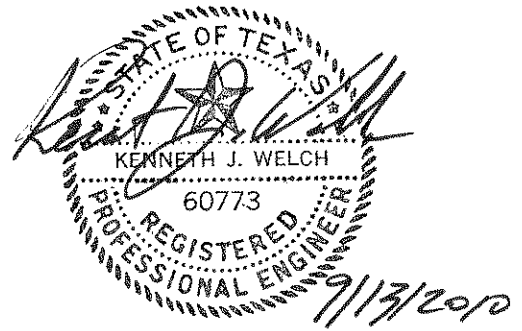
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Load Inspection Report

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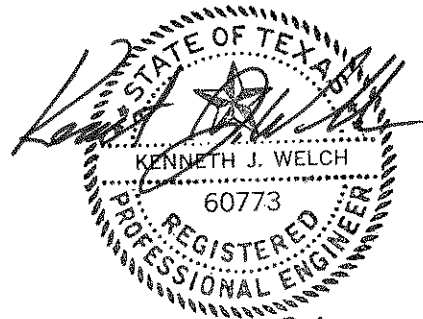
Alternative Daily Cover Operating Plan

APPENDIX IVC

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APPENDIX IVD

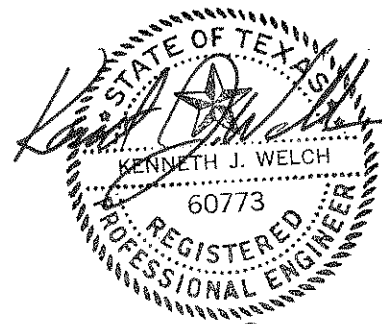
Regulated Asbestos-Containing Material Plan



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LIST OF ACRONYMS

ADC – Alternative Daily Cover
ADCOP – Alternative Daily Cover Operating Plan
CFR – Code of Federal Regulations
EPA – U.S. Environmental Protection Agency
GLER – geosynthetics liner evaluation report
LCS – leachate collection system
LFG – landfill gas
MSW – municipal solid waste
NRACM – nonregulated asbestos-containing material
OSHA – Occupational Safety and Health Administration
PCB – polychlorinated biphenyls
RACM – regulated asbestos-containing material
SLER – soil liner evaluation report
SOP – site operating plan
SPCC – Spill Prevention, Control, and Countermeasures Plan
SWPPP – Stormwater Pollution Prevention Plan
TAC – Texas Administrative Code
TCEQ – Texas Commission on Environmental Quality
TxDOT – Texas Department of Transportation
TPWD – Texas Parks and Wildlife Department
WMTX – Waste Management of Texas, Inc.
WWTP – wastewater treatment plant



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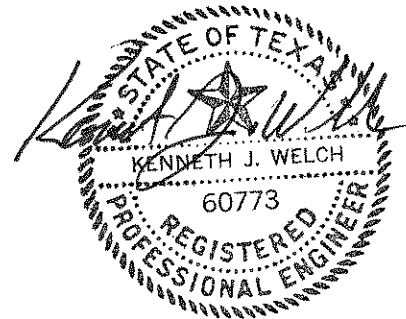
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1 INTRODUCTION

30 TAC §§330.65, 330.121, 330.123, 330.127

1.1 Introduction

This Site Operating Plan (SOP) has been prepared for the Atascocita Recycling and Disposal Facility (RDF) in Harris County, Texas. This SOP is consistent with 30 Texas Administrative Code (TAC) §330.65 and contains the information required by §330.127. This SOP includes provisions for site management and site operating personnel to meet the general and site-specific requirements included in Subchapter D, §§330.121 through 330.179, relating to Operational Standards for Municipal Solid Waste Landfill Facilities, and applicable sections of Subchapter E, §§330.201 through 330.249, relating to Operational Standards for Municipal Solid Waste Storage and Processing Units, for the day-to-day operation of the facility. This SOP will be retained on site throughout the active life of the facility and throughout the postclosure care maintenance period.

The Atascocita RDF is an existing Type I Municipal Solid Waste Disposal Facility owned and operated by Waste Management of Texas, Inc. (WMTX). The Atascocita RDF is located in Harris County, Texas and provides waste disposal capacity for residences and businesses in and around Harris County. The landfill is located at 3623 Wilson Rd, Humble, TX. The Atascocita RDF is located approximately 2.4 miles east of U.S. 59 North and 1 mile north of Beltway 8.

The primary function of the facility is municipal solid waste disposal. The major classifications of solid waste to be accepted at the facility include municipal solid waste, special waste, and Class 2 and 3 industrial wastes. The facility is authorized to accept wastes for liquid stabilization. Support facilities include a site entrance road, gatehouse, equipment maintenance and storage area, liquid stabilization facility, citizen's convenience drop-off area, white goods storage area, truck wheel wash, and leachate storage facility. A Landfill Gas to Energy (LFGTE) Facility (Registration No. 48006) is also located within the permit boundary of the Atascocita RDF.

The Atascocita RDF provides waste disposal for Harris County and surrounding counties. The facility receives waste from public and private haulers. The Atascocita RDF currently has a waste acceptance rate of approximately 1,142,000 tons per year or about 3,660 tons per day. Based on projected waste acceptance rates, the landfill estimates that the maximum waste acceptance rate will reach 1,911,000 tons per year or about 6,120 tons per day. This SOP includes provisions for accommodating waste receipts up to 2,860,000 tons per year.

This SOP provides guidance for site management and site operating personnel for the daily operation of the Atascocita RDF. This SOP also includes provisions for site

management and site operating personnel to meet the general and site-specific requirements for the waste acceptance rate established in the permit.

1.2 General

The operational requirements for the Atascocita RDF are defined in Part III, Facility Investigation and Design and Part IV, Site Operating Plan (SOP). The following documents are operational requirements and are part of the site operating record of the Atascocita RDF.

Operational requirements are included in the following:

- Municipal Solid Waste Disposal Permit No. 1307D
- Part III – Facility Investigation and Design
- Attachment A – Site Development Plan Narrative
- Attachment B – General Facility Design
- Attachment C – Facility Surface Water Drainage Report
- Attachment D – Waste Management Unit Design
- Attachment E – Geology Report
- Attachment F – Groundwater Monitoring Plan
- Attachment G – Landfill Gas Management Plan
- Attachment H – Closure Plan
- Attachment I – Postclosure Plan
- Attachment J – Cost Estimate for Closure and Postclosure Care
- Part IV – Site Operating Plan

1.3 Pre-Operation Notice

The facility, in accordance with §330.123, will provide notice of construction of a new waste disposal area or cell in the form of a Soil Liner Evaluation Report (SLER) and a Geosynthetics Liner Evaluation Report (GLER), to the executive director for review 14 days prior to the placement of waste. The executive director has 14 days to provide a verbal or written response. If no response has been received by the end of the fourteenth day following the executive director's receipt of the report, the operator may begin placing waste.

2 RECORDKEEPING REQUIREMENTS

30 TAC §330.125

2.1 Documents

The Atascocita RDF will maintain the operating record for the facility on site. Consistent with §330.125(a), copies of documents that are part of the approved permitting process that are considered part of the site operating record are listed in Table 2-1.

2.2 Analytical Data

The Atascocita RDF, in accordance with §330.125(b), will record and retain in the site operating record those items listed in Table 2-1 within seven working days following completion or receipt of analytical data.

2.3 Operating Record

The Atascocita RDF, in accordance with §330.125(c), will place the items included in Table 2-1 into the site operating record within the specified time period. The Atascocita RDF will maintain the site operating record in an organized format, where information is easily locatable and retrievable. The site operating record will be furnished to the executive director upon request, and will be made available on site for inspection by the executive director.

2.4 Record Retention

The Atascocita RDF, in accordance with §330.125(d), will retain all information contained within the site operating record of the facility and all plans required for the facility for the life of the facility including the postclosure care period.

2.5 Personnel Training Records and Licenses

In accordance with §330.125(e), the Atascocita RDF will maintain personnel training records in accordance with §335.586(d) and (e). Personnel training requirements will be consistent with Section 3 – Personnel and Training of this SOP. Personnel training records for currently employed facility personnel will be maintained until closure of the facility. Records of former employees will be maintained for three years from the date

the employee last worked at the facility. Records for each facility employee will include name, job title, job description, introductory training, continuing training, and documentation of training. In accordance with §330.125(f), the facility will maintain personnel operator licenses issued in accordance with Chapter 30, Subchapter F, relating to municipal solid waste facility supervisors. Personnel training records and personnel operator licenses will be maintained in the site operating record as listed in Table 2-1.

2.6 Alternative Schedules

The executive director, in accordance with §330.125(g), may set alternative schedules for recordkeeping and notification requirements as specified in §330.125(a)-(f), except for notification requirements contained in §330.545.

2.7 Annual Waste Acceptance Rate

As listed in Table 2-1, the Atascocita RDF will maintain as part of the site operating record documentation of the annual waste acceptance rate for the facility in accordance with §330.125(h). Records will include maintaining the quarterly solid waste summary reports and the annual solid waste summary report as required by §330.675. The annual waste acceptance rate, as established by the sum of the previous four quarterly summary reports, will be evaluated by the Atascocita RDF to determine if the waste acceptance rate exceeds the rate estimated in the permit application. Should an increase in waste acceptance be established, the facility will determine if the increase is due to a temporary occurrence. Should the waste acceptance rate exceed that established in the permit application, and not be due to a temporary occurrence, a permit modification would be prepared in accordance with then applicable TCEQ regulations to propose changes, if necessary, to manage the increased waste acceptance rate to protect human health and the environment. An increase in the waste acceptance rate that is determined to be a temporary occurrence does not require the submittal of a permit modification. This section is not intended to make an estimated waste acceptance rate a limiting parameter of the permit.

The Atascocita RDF anticipates that the waste acceptance rate for the facility will increase during the site life. The Atascocita RDF currently has an average annual waste acceptance rate of approximately 1,142,000 tons per year, or about 3,660 tons per day. Based on projected waste acceptance rates, the landfill estimates the waste acceptance rate would increase over the remaining life of the facility to about 1,911,000 tons per year, or about 6,120 tons per day. This SOP includes provisions for accommodating waste receipts up to 2,860,000 tons per year.

**Table 2-1
Atascocita Recycling and Disposal Facility
Records to be Maintained in the
Site Operating Record**

Records to be Maintained in the Site Operating Record	Frequency	Rule Citation
Municipal Solid Waste Disposal Permit No. 1307D	Submittal of Permit Amendment Application	§330.125(a)
Part I – Site and Applicant Information	Submittal of Permit Amendment Application	§330.125(a)
Part II – Existing Conditions and Character of the Facility and Surrounding Area	Submittal of Permit Amendment Application	§330.125(a) and §330.125(b)(1)
Part III – Facility Investigation and Design	Submittal of Permit Amendment Application	§330.125(a)
Attachment A – Site Development Plan Narrative	Submittal of Permit Amendment Application	§330.125(a)
Attachment B – General Facility Design	Submittal of Permit Amendment Application	§330.125(a)
Attachment C – Facility Surface Water Drainage Report	Submittal of Permit Amendment Application	§330.125(a)
Attachment D – Waste Management Unit Design	Submittal of Permit Amendment Application	§330.125(a)
Attachment E – Geology Report	Submittal of Permit Amendment Application	§330.125(a)
Attachment F – Groundwater Monitoring Plan	Submittal of Permit Amendment Application	§330.125(a)
Attachment G – Landfill Gas Management Plan	Submittal of Permit Amendment Application	§§330.125(a) and 330.159
Attachment H – Closure Plan	Submittal of Permit Amendment Application	§§330.125(a) and 330.125(b)(6)
Attachment I – Postclosure Plan	Submittal of Permit Amendment Application	§§330.125(a) and 330.125(b)(6)
Attachment J – Cost Estimate for Closure and Postclosure Care	Submittal of Permit Amendment Application	§§330.125(a) and 330.125(b)(7)
Part IV – Site Operating Plan	Submittal of Permit Amendment Application	§330.125(a)
State and Federal Regulations	Submittal of Permit Amendment Application	§330.125(a)
Location Restriction Demonstrations	Submittal of Permit Amendment Application	§330.125(b)(1)
Inspection records, training procedures and notification procedures related to excluding the receipt of prohibited waste	Per occurrence	§330.125(b)(2)
Results from gas monitoring events	Quarterly	§§330.125(b)(3) and 330.159
Remediation plans relating to explosive and other gases, if applicable	Per occurrence	§§330.125(b)(3) and 330.159
Unit design documentation for the placement of leachate or gas condensate in the landfill	Per occurrence	§330.125(b)(4)
Groundwater monitoring and corrective action demonstrations, certifications, findings, monitoring, testing and analytical data, if applicable	As required	§330.125(b)(5)
Closure and postclosure monitoring, testing, and analytical data, if applicable	As required	§330.125(b)(6)
Cost estimates and financial assurance documentation for closure and postclosure	Annually	§330.125(b)(7)

**Table 2-1
Atascocita Recycling and Disposal Facility
Records to be Maintained in the
Site Operating Record
(Continued)**

Records to be Maintained in the Site Operating Record	Frequency	Rule Citation
Facility operation, permit modification, approvals, and technical assistance correspondence and responses	Per occurrence	§330.125(b)(9)
Special waste manifests, shipping documents, trip tickets, and all other documents relating to special waste	Per occurrence	§330.125(b)(10)
Other documents specified in the permit or by the executive director	As required	§330.125(b)(12)
Personnel training records in accordance with §335.586(d)-(e)	As needed	§330.125(e)
Personnel operator licenses	As needed	§330.125(f)
Records to document the annual waste acceptance rate including quarterly solid waste summary reports and annual solid waste summary reports	Quarterly and annually	§330.125(h)
Load inspection records	Per occurrence	§330.127(5)(B)
Fire occurrence notices	Per occurrence	§330.129
Inspection records and training procedures relating to fire prevention and site safety	As needed	§330.129
Access control breach and repair notices	Per occurrence	§330.131
All site inspection and maintenance documentation noted in Section 8.25 – Site Inspection and Maintenance Schedule	As required	N/A
A record of each unauthorized material removal event	Per occurrence	§330.133(b)
A record of alternate operating hours	As required	§330.135(d)
Water, crude oil and/or natural gas well location and plugging reports	Within 30 days of discovery	§330.161(a)-(c)
Cover inspection records	As required	§330.165(h)
Current site plan of RACM disposal area	As required	§330.171(c)(3)(B)
RACM acceptance records including the location, depth and volume of each load	Per occurrence	§330.171(c)(3)(B)
RACM contingency plan compliance documentation	Prior to the acceptance of RACM	§330.171(c)(3)(H)
Leachate and contaminated water off-site disposal records	Per occurrence	N/A

3 PERSONNEL AND TRAINING

30 TAC §§330.127(1), (3), (4)

3.1 Personnel

The Atascocita RDF will be staffed with qualified individuals experienced with municipal solid waste disposal operations and earthmoving construction projects. See Figure 3.1 – Organizational Chart for the personnel organization. Refer to Table 3-1 for a summary of job descriptions, minimum qualifications, and required training for landfill personnel.

The landfill district manager (individual having managerial oversight of the facility) is responsible for overall facility management and is designated as the contact person for regulatory compliance matters. The landfill district manager is responsible for assuring that adequate personnel and equipment are available to provide facility operation in accordance with the Facility Investigation and Design, SOP, and the TCEQ regulations. The landfill district manager is responsible for daily operations, administers the facility's SOP, and also serves as the emergency coordinator. The landfill district manager, at a minimum, will have seven years of landfill operational experience, experience in earthmoving operations, and experience in municipal solid waste disposal operations. The landfill district manager, within six months of being assigned to the landfill district manager position, will obtain and maintain a Class A license as a municipal solid waste operator consistent with the requirements of §§30.201, 30.207, 30.210, and 30.212.

The landfill manager is responsible for actual landfill operations. The equipment operators receive direction from the landfill manager on a daily basis regarding waste disposal operations including the active working face, excavation operations, and placement of daily and intermediate cover. The landfill manager will report to the landfill district manager. The landfill manager, at a minimum, will have experience in earthmoving operations and have the ability to be trained in municipal solid waste disposal operations. The landfill manager will have a minimum of one year of landfill operation experience and will obtain and maintain a Class A license as a municipal solid waste operator, consistent with the requirements of §§30.201, 30.207, 30.210, and 30.212, within six months of being assigned to the landfill manager position.

The gate attendant(s), stationed at the site entrance, is primarily responsible for maintaining complete and accurate records of vehicles and solid waste entering the facility. The gate attendant will be trained in site safety procedures, to visually check for unauthorized wastes, to weigh vehicles, measure waste volumes if necessary, and to collect waste disposal fees. The gate attendant will be present during the hours that the Atascocita RDF is open to receive waste. The gate attendant will report to the landfill manager. The gate attendant, at a minimum, will have a basic understanding of accounting principles and basic communication skills.

Equipment operators are responsible for the safe operation of the equipment. As the personnel most closely involved with the actual landfill operations, these employees are responsible for being alert for potentially dangerous conditions, or careless and improper actions on the part of non-employees and other persons while on the premises. Equipment operators will monitor and direct unloading vehicles, perform random load inspections, and are responsible for maintenance, construction, litter abatement, and general site cleanup. The equipment operators will intervene as necessary to prevent accidents and report unsafe conditions immediately to the landfill district manager or landfill manager. Equipment operators report to the landfill manager. Equipment operators, at a minimum, must be experienced in the operation of heavy equipment, experienced in earthmoving operations, and demonstrate the ability to be trained in municipal solid waste disposal operations. Equipment operators will have a minimum of six months of experience in heavy equipment operation or on the job training by the landfill manager and training by the landfill manager in SOP requirements relating to daily cover and unauthorized waste.

Other site personnel or laborers may be employed from time to time in categories such as maintenance, construction, litter abatement, and general site cleanup. Site personnel may be permanent or part-time.

Supplemental regional personnel who are available to the Atascocita RDF include the Director of Landfill Operations, Environmental Compliance Manager, Engineer, Special Wastes Approval Manager, and landfill gas system monitoring staff. These supplemental personnel assist the landfill manager with environmental monitoring and compliance, engineering and facility construction activities, and special waste acceptance evaluations. The supplemental personnel are not assigned exclusively to the Atascocita RDF and are not involved in daily operations.

3.2 General Instruction

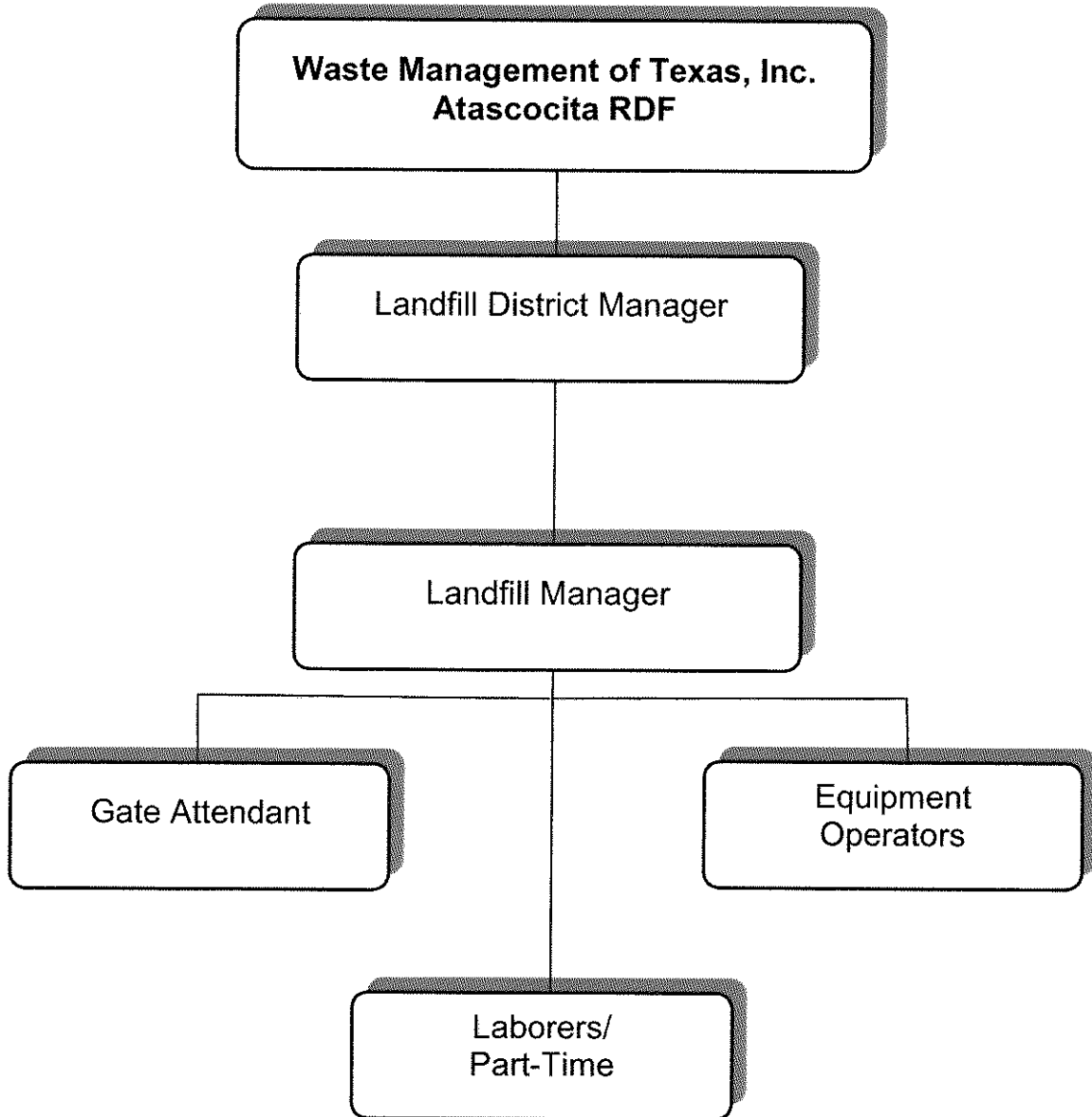
The Atascocita RDF personnel should have a basic understanding of the contents of this SOP. The landfill district manager and landfill manager should have a basic knowledge of the approved Part III – Facility Investigation and Design. The Atascocita RDF personnel will follow the general instructions provided in the SOP and the Facility Investigation and Design. Refer to Section 8.25 – Site Inspection and Maintenance Schedule for a listing of operational tasks required.

3.3 Training

A comprehensive personnel training program has been developed and will be employed throughout the operating life of the landfill. This training program will provide solid waste management procedures and operations training to employees who are assigned to, or have responsibility for, the landfill operation. Training records will be maintained as indicated in Section 2 – Recordkeeping Requirements.

Training will consist of both initial and continuing courses, and/or safety/training meetings that will provide instruction on current state and federal laws, TCEQ rules regarding solid waste management, facility operation and maintenance, environmental monitoring, public health and environmental protection, and facility design and construction. Table 3-1 – Site Personnel Summary indicates the training required for on-site personnel associated with the Atascocita RDF.

Figure 3.1
Organizational Chart



**Table 3-1
Atascocita Recycling and Disposal Facility
Site Personnel Summary**

Position	Job Description	TCEQ MSW Rules/Site TCEQ Permit	Site Orientation	Site Operations	Regulated Hazardous, Prohibited PCB, and Unauthorized Waste Identification and Management	Safety	Fire Prevention	LFG Management	Groundwater Contamination Management	SPCC	Emergency Response	Litter Control	Random Inspections	SWPPP
Landfill District Manager		X	X	X	X	X	X	X	X	X	X	X	X	X
Landfill Manager	Oversight of landfill activities and overall implementation of site permit requirements	X	X	X	X	X	X	X	X	X	X	X	X	X
Gate Attendant	Waste receipts, visual inspection/screening of loads, direction of vehicles to unloading areas, screening for unauthorized waste	X ¹	X	X	X	X	X				X	X	X	
Equipment Operator	Waste compaction, cover application, screening of waste receipts and site maintenance (as assigned by the Landfill Manager)	X ¹	X	X	X ¹	X	X	X ¹		X ¹	X	X	X ¹	X ¹
Laborer	Site maintenance, litter control (as assigned by the Landfill Manager)	X ¹	X		X ¹	X	X				X	X	X ¹	X ¹

X¹ Training will be provided to specific site personnel assigned duties requiring the training.

3.3.1 Personnel Training Program

The two major objectives of the personnel training program at the Atascocita RDF are:

1. To thoroughly train appropriate employees in the proper performance of their individual job duties, which pertain to solid waste management.
2. To prepare appropriate employees to implement the proper emergency procedures effectively, if necessary.

To accomplish these objectives, both on-the-job training and formal instruction in solid waste management procedures, safety, emergency procedures, and facility operations procedures are provided to personnel involved with the handling, transportation, and disposal of solid waste. Personnel will receive training appropriate to individual needs as well as specific job duties and responsibilities. These personnel will be trained to perform their duties safely and in accordance with the applicable requirements for solid waste management. The training program will be designed to enable facility personnel to respond effectively to emergencies by familiarizing personnel with emergency procedures and equipment. Personnel must successfully complete the in-house training program within six months of employment or assignment to this facility. Additional supervision will be provided to personnel during training, and personnel activities will be limited during the training period.

The personnel training program includes familiarization with regulations applying to generators of unauthorized, regulated hazardous, and prohibited PCB wastes and provides general descriptive characteristics of unauthorized, regulated hazardous, and prohibited PCB wastes. Appropriate Atascocita RDF personnel will be trained to recognize unauthorized, regulated hazardous, and prohibited PCB wastes in the incoming loads and to help prevent their disposal at the landfill. Personnel training will be performed by individuals experienced in solid waste management procedures and operations, safety, and related subjects.

The training program will also ensure that personnel, as appropriate for their position, are familiar with emergency procedures, emergency equipment, and emergency systems, including:

- Using, inspecting, repairing and replacing facility emergency and monitoring equipment
- Communications or alarm systems
- Response to fires or explosions
- Response to groundwater contamination incidents
- Shutdown of operations

The training will be specific to the duties, tasks, and responsibilities of each employee's position as indicated in Table 3-1. Experienced employees, or supervisors, who are

knowledgeable of the requirements for satisfactory job performance, will provide on-the-job training and monitor the employee's progress. On-the-job training is progressive, typically beginning with demonstrations, and then followed by closely supervised practice. When the employee has demonstrated the ability to understand and perform the job and its related safety and emergency response functions, the supervisor acknowledges the satisfactory completion of the employee's on-the-job training by making an appropriate entry in the training records.

In addition to formal training, successful completion of the appropriate on-the-job training activities by an employee is required to fill an operator position. When an existing employee is transferred or promoted to a new position with training requirements that differ from the previous position, that employee will receive the additional training required.

Training will include both introductory and continuing training. Introductory training (four hours minimum) provided to the landfill manager, gate attendant, and equipment operator will include safety training, emergency training, and training required to perform specific personnel assigned tasks. The frequency of continuing education and training activities will vary according to job title and position. Landfill personnel will be provided an annual review (two hours minimum) of the initial training required for the position. Proof of training, including continuing training, will be maintained at the landfill and will be available for inspection by TCEQ personnel. Training records will be maintained as part of the Site Operating Record as described in Section 2.0.

4 EQUIPMENT

30 TAC §330.127(2)

Sufficient equipment will be provided to conduct site operations in accordance with the landfill design and permit conditions.

The following list of equipment is expected to be routinely available for use at the facility. Equipment requirements may vary in accordance with the method of landfill operations or the waste acceptance rate at any given time. Additional equipment will be provided as required for increasing volumes of incoming solid waste. Other equivalent types of equipment by other manufacturers may be substituted on an as-needed basis. The minimum number of pieces of equipment to be provided for daily operations is listed in Table 4-1, Equipment Dedicated to the Atascocita RDF.

The estimated waste acceptance rate for the Atascocita RDF is described in Section 2.7 of this SOP. The site currently has an average annual waste acceptance rate of approximately 1,142,000 tons per year, or about 3,660 tons per day. It is anticipated that the waste acceptance rate will increase to approximately 1,911,000 tons per year, or about 6,120 tons per day. The size, number, types, and equipment manufacturers will vary during site operations based on operational practices and on the annual waste acceptance rate.

Compactors are typically used for spreading and compacting the refuse and also for compacting the cover material. Dozers are typically used for soil movement and placement, and for emergency waste compaction. Scrapers or excavators and haul trucks are typically used for excavating and moving both the cover material used in site operations and soil from the future disposal areas. The landfill will use either scrapers or an excavator and haul trucks for soil excavation and movement. The motor grader is typically used for road maintenance, ditching, surface water control, and final grading of the completed fill areas. The water truck will be used for fire control, dust control, and moisture conditioning of soil materials as necessary. A farm tractor and pickup truck(s) will be used as needed for miscellaneous maintenance, litter control, and personnel use. Backup equipment will be provided from other WMTX facilities, contractors, or local rental companies in the event of a breakdown or maintenance to avoid interruption of waste services.

In addition to the equipment listed in Table 4-1, miscellaneous pickups, vans, or other light utilities, as well as various portable pumps, instruments, and safety and training equipment will be on site as needed for operational efficiency.

Equipment operators may perform routine cleaning of landfill equipment using low-volume, high-pressure spray equipment at the active area of the landfill over Subtitle D lined areas. The equipment spraying consists of blowing landfill equipment radiators

clean of dust and debris – a manufacturer's recommendation – allowing the equipment to continue operating through the day without accumulated dust and material creating overheating problems. Liquids containing refuse will be handled in the same manner as contaminated water is handled (see Section 8.24).

**Table 4-1
Equipment Dedicated to the Atascocita RDF⁽¹⁾**

Equipment ⁽³⁾	Typical Size ⁽⁴⁾	Number ⁽⁵⁾			Function
		Less than 750,000 tons per year	750,001 to 1,430,000 tons per year	1,430,001 to 2,145,000 tons per year	
Compactor(s)	CAT 836	1	2	3	Waste compaction and fire protection
Dozer(s)	CAT D7, D8	1	2	4	Soil movement and placement, waste spreading, and fire protection
Scraper(s) ⁽²⁾	CAT 621E	1	2	4	Soil excavation and hauling, and fire protection
Excavator ⁽²⁾	CAT 330BL		1	2	Soil excavation
Haul Truck(s) ⁽²⁾	10 to 40 ton	1	2	4	Soil hauling and fire protection
Motor Grader	CAT 120	1	1	2	Roadway maintenance
Farm Tractor	35 HP	1	1	1	Miscellaneous maintenance
Pickup Truck(s)	½ ton	1	1	1	Personnel use, litter control, maintenance
Water Truck(s)	1,000 to 4,000 gallons	1	1	1	Fire control, dust control, earthfill compaction
Pump(s)	10 to 500 gpm	1	1	1	Stormwater pumping
Rotary Broom	3 to 6-foot broom width	1	1	1	Sweeping and cleaning of paved roads

⁽¹⁾The manufacturers of heavy equipment and miscellaneous vehicles and equipment may vary.

⁽²⁾Soil excavation will be conducted with scraper(s) or with an excavator and haul truck(s). The landfill will determine appropriate excavation equipment as the landfill is developed.

⁽³⁾Backup equipment will be provided from other WMTX facilities, contractors, or local rental companies in the event of an equipment breakdown or maintenance to avoid interruption of waste services.

⁽⁴⁾Typical size is minimum size to be provided.

⁽⁵⁾The number stated for each piece of equipment is the minimum number for each piece of equipment to be provided.

5 DETECTION AND PREVENTION OF DISPOSAL OF PROHIBITED WASTES

30 TAC §330.127(5)

5.1 General

The Atascocita RDF, in accordance with §330.127(5), has established procedures for the detection and prevention of the disposal of prohibited wastes, including regulated hazardous waste, as defined in 40 CFR Part 261, and polychlorinated biphenyls (PCB) waste as defined in 40 CFR Part 761 unless authorized by the United States Environmental Protection Agency (EPA). The detection and prevention program will include training site personnel to know in detail what the regulated wastes are, how to perform a random inspection, how to control site access, what training will be provided for site personnel, and what procedures are required in the event of identification of prohibited wastes. The detection and prevention program includes the following steps:

- Random inspections of incoming loads.
- Records of all inspections.
- Training for appropriate facility personnel to recognize prohibited waste, regulated hazardous waste and PCB waste.
- Notification to TCEQ of any incident involving the receipt or disposal of regulated hazardous waste or PCB waste at the landfill.
- Provisions for remediation of the incident.
- Identification and sampling to ensure no free liquids, including unstabilized sludges, will be accepted (as determined by the paint filter test). Some liquid waste is accepted and solidified prior to disposal as discussed in Section 8.20.1.
- Refer to Appendix IVC – Special Waste Acceptance Plan for identification of prohibited wastes.

5.2 Load Inspection Procedure

A properly trained and qualified staff person at the working face will visually inspect all incoming waste loads. All vehicles, including compactor vehicles, will be visually inspected as waste is discharged at the working face. Should any indication of

prohibited waste be detected, appropriate facility personnel will stop vehicle unloading to allow facility personnel to conduct a thorough evaluation of the load. The driver will be directed to a load inspection area located near the working face over an approved lined area, where the load will be discharged from the vehicle. The load inspector will break up the waste pile and inspect the material for any prohibited waste. Known prohibited waste will be placed back into the vehicle and the driver will be instructed to depart the site. Should any regulated hazardous waste be detected, the entire load will be refused.

In addition to the above procedure, all incoming loads will be inspected on a random basis. The landfill manager will be responsible for determining the random inspection schedule. The average number of random loads to be inspected is one or more per operating day averaged over a monthly period. The driver of the randomly selected load will be notified at the gatehouse and instructed to proceed as above to a load inspection area located over an approved lined area. Additional waste screening will take place as described in Section 8.2 of this SOP.

5.3 Recordkeeping

The landfill manager is required to maintain and include in the site operating record the following:

- Load inspection reports for randomly inspected loads
- Records of regulated hazardous or PCB waste notifications
- Personnel training records

Load inspection reports, recorded on standardized forms, will be completed for each inspected load. The reports will include, at a minimum, the date and time of inspection, the name of the hauling company and driver, the type of vehicle, the size and source of the load, contents of the load, indicators of prohibited waste, and results of the inspection. A copy of a sample load inspection report form is included in Appendix IVA of the SOP.

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

Personal training records will be maintained in the site operating record and will include evidence of successful completion of the training, type of training received, and the name of the instructor.

5.4 Training

The landfill district manager, landfill manager, equipment operators, and gate attendant will maintain a thorough understanding of this SOP and will be trained in the following areas:

- Customer notification and load inspection procedures
- Identification of regulated hazardous, PCB, and prohibited waste
- Waste handling procedures
- Health and safety procedures
- Recordkeeping

Documentation of training will be placed in the site operating record.

5.5 Notification

The TCEQ executive director and any local pollution agency with jurisdiction that has requested to be notified will be notified of any incident involving the receipt or disposal of regulated hazardous waste or PCB waste at the landfill. Records of notifications will be maintained in the site operating record including date and time of notification, the individual contacted, and the information reported.

5.6 Managing Prohibited Wastes

Known prohibited wastes detected during the inspection will be returned immediately to the hauler. If the hauler is not available, the waste will be safely stored until provisions for removal can be arranged.

If regulated hazardous or PCB wastes are disposed of in the landfill, the TCEQ will be notified. As soon as is practical, the hauler will be required to remove the regulated hazardous or PCB waste from the site.

6 GENERAL INSTRUCTIONS

30 TAC §330.127(6)

6.1 General Site Safety

Site safety will be promoted by properly trained personnel using well-maintained equipment to perform standard work procedures. Site safety will be enhanced by limiting access to the active areas to only authorized personnel. In the event of an emergency, planned emergency response procedures will be followed.

Well-maintained equipment is vital to the safe conduct of daily landfilling operations. Therefore, all site equipment will be maintained in proper working order and all safety guards, backup alarms, and engine kill switches will be operational. The facility will perform an equipment check at the beginning of each workday. The facility will inspect the fire extinguishers and first aid kits monthly. Records of all inspections will be maintained as part of the site operating record.

Access to the site is limited to authorized personnel as described in Section 8 of this SOP. Access is controlled by a combination of signs and physical barriers. Site personnel are responsible to be alert for the entrance of unauthorized personnel or the entrance of authorized personnel into prohibited areas.

In the event of an emergency, site personnel will assess the situation, notify the landfill manager or designated supervisor, and take appropriate actions such as rendering aid, calling for assistance, and closing access to the emergency scene. Emergency numbers will be posted beside the telephone in the gatehouse.

These include:

OFFICE	PHONE
Ambulance	911
Atascocita Volunteer Fire Department	911 or 281-852-2233
Eastex Freeway Volunteer Fire Department	911 or 281-444-2244
Harris County Sheriff Department	911 or 713-221-6000

6.2 Preparedness and Prevention Measures

Preparedness and prevention measures have been developed to minimize both the frequency and severity of accidents and emergency situations threatening human health. Preparedness and prevention measures depend largely on the attentiveness and state of readiness of facility personnel. Preparedness and prevention measures have been developed for one general category and two specific areas of the site: the gatehouse and the on-site access routes. These preparedness and prevention measures are detailed in the following sections.

6.2.1 General

General preparedness and prevention measures that will be followed are:

- Employee breaks or rest periods will be provided to minimize fatigue, improve alertness, and thereby reduce accident potential.
- Access controls will provide for the safety of non-landfill personnel.
- Routine preventive maintenance of equipment will be provided.
- Site inspections of the working areas will be performed by a management representative.
- Appropriate personal safety equipment will be kept on site and maintained in good repair.
- Adequate turning areas for hauling vehicles will be provided.
- Scavenging and unauthorized salvaging will not be allowed.
- Waste unloading will be restricted to designated areas only.
- Site personnel will be alert for possible hazardous or other unauthorized wastes.
- Non-approved wastes will be controlled or contained and removed as necessary.
- Smoking is not allowed on the active areas of the landfill.

6.2.2 Gatehouse

Preventative measures that will be followed in the gatehouse include the following:

- Visually screen all incoming waste loads for unauthorized wastes.
- Monitor to see that all waste loads are adequately covered, or otherwise protected or contained.

- Visually observe incoming vehicles for evidence of improper operation, faulty equipment, or other conditions that could be hazardous to personnel or other persons on site.
- Maintain access to appropriate emergency equipment and first-aid materials.
- Provide emergency telephone numbers that are conspicuously posted in the gatehouse.
- Display signs warning transporters that particular wastes, including regulated hazardous wastes and other nonallowable special wastes, are prohibited.

6.2.3 Landfill Entrance Road, Haul Road, and Access Road

Landfill entrance road, haul road, and access road preventative measures include the following:

- Display speed limit, directional, and other precautionary signs.
- Provide road passable for two-way traffic.
- Maintain roadway free from obstructions.
- Enforce requirements for safe operation of vehicles on site.

7 FIRE PROTECTION PLAN

30 TAC §330.129

7.1 Fire Prevention Procedures

The following steps will be taken regularly by designated landfill personnel to prevent fires:

- Open burning of waste is prohibited at all times.
- Burning waste from incoming waste loads will not be dumped in the active working face of the landfill. The gate attendant and equipment operators will be alert for signs of burning waste such as smoke, steam, or heat being released from incoming waste loads.
- Should burning waste from an incoming waste load be observed at the gatehouse or active working face, the gate attendant or equipment operator will direct the driver to a designated area away from the active working face to unload. The burning waste will then be extinguished with water, fire extinguishers, or will be covered with soil to smother the fire.
- Fuel spills will be contained and cleaned up immediately.
- Dead trees, brush, or vegetation adjacent to the active working face will be removed immediately and grass and weeds mowed so that forest, grass, or brush fires cannot spread to the landfill.
- Smoking is not allowed on the active working face, refueling area, and other fire sensitive areas of the landfill. Smoking will be allowed by the landfill manager in designated areas only.
- The site will be equipped with fire extinguishers in appropriate locations. Each fire extinguisher will be fully charged and ready for use at all times. Each extinguisher will be inspected on an annual basis and recharged as necessary. These inspections will be performed by a qualified service company, and all extinguishers will display a current inspection tag. Inspection and recharging will be performed following each use. At a minimum, the gatehouse, maintenance building, citizen disposal facility, and all landfill heavy equipment will be equipped with fire extinguishers.

- A common firefighting technique that can be quickly employed to fight a landfill fire is smothering with soil. The faster that soil can be placed over the fire, the more effective this method will be in controlling and extinguishing the fire. The stockpiled daily cover may be used for firefighting purposes.
- A stockpile of earthen material will be maintained so that it is available at all times to extinguish a fire. Two separate soil stockpiles will be provided. One stockpile will be provided adjacent to the active working face, and a second soil stockpile will be provided within 2,500 feet of the active working face. The landfill equipment conducting daily waste filling operations will be suitable for placement of additional soil from the earthen stockpile for fire control.
- The total volume of earthen material available from the two stockpiles will be sized to cover the working face with a minimum 6-inch layer of earthen material. The earthen material stockpiles shall be provided consistent with the size of the active working face based on the following table:

Size of Working Face		Area of Working Face			Total Size of Stockpile
		Sq Ft	Cu Ft	Cu Yd	
L	W	L x W	Sq Ft x 0.5	Cu Ft / 27	Cu Yd x 1.15
100	100	10,000	5,000	185	213
150	250	37,500	18,750	694	799
150	500	75,000	37,500	1,388	1,597
300	750	225,000	112,500	4,167	4,792
400	1,000	400,000	200,000	7,407	8,519

- The landfill equipment identified in Table 4-1 is sufficient to cover the active working face with a minimum 6-inch soil layer from the earthen material stockpiles, within one hour of detecting a fire.
- The soil stockpile adjacent to the active working face will provide a minimum of 400 cy of soil. The dozer and compactor operating at the working face will each achieve a production rate of approximately 200 cy per hour for a total hourly production rate of approximately 400 cy.

- A soil stockpile or soil borrow area will be provided within 2,500 feet of the active working face. The haul truck will achieve a production rate of approximately 20 cy per load with a required total round trip of five minutes. The total volume of soil to be provided by one haul truck is approximately 240 cy.
- The active working face will be limited to the total capacity of the dozer and compactor capacity and the excavator and haul truck capacity unless larger equipment or additional capacity is provided.

7.2 Specific Firefighting Procedures

The following procedures will be followed in the event of a fire:

- If a fire occurs on a vehicle or piece of equipment, the equipment operator should bring the vehicle or equipment to a safe stop. If safety of personnel will allow, the vehicle must be parked away from fuel supplies, uncovered solid wastes, and other vehicles. The engine should be shut off and the brake engaged to prevent movement of the vehicle or piece of equipment. Fire extinguishers should be used to extinguish the fire if possible, without risk to the equipment operator.
- Incoming loads with burning waste will be prevented from being unloaded in the active working face of the landfill. The gate attendant and equipment operators will be alert for signs of these loads, such as smoke, steam, or heat being released from incoming waste loads. Should a load with burning waste be observed at the gate or active working face, the gate attendant or equipment operator will direct the driver to a designated area away from the active working face to unload. The load will be covered with soil to smother the fire.
- If a fire is in the working face, the burning area should be isolated or pushed away from the active working face before the fire can spread to other areas of the working face. If isolating or pushing the fire is not feasible or unsafe, the working face should immediately be covered with earthen material from the stockpile to smother the fire.
- If a fire occurs at the citizen's collection station/recycling facility, landfill personnel should use fire extinguishers to extinguish the fire, if possible. The general rules for fires will be implemented as included in Section 7.3 to protect landfill personnel or visitors.
- Firefighting methods include smothering with soil, separating burning material from other waste, and spraying with water from the water truck or water pumped from nearby ponds or streams. If detected soon enough, a small fire may be fought with a hand-held fire extinguisher. Fire extinguishers will be located at the gatehouse, maintenance building, citizen disposal facility, and all landfill heavy equipment. Under this circumstance, the fire area should also be watered or otherwise controlled to ensure that the fire is out.

7.3 General Rules for Fires

The following rules will be implemented in the event of a fire at the Atascocita RDF:

- Immediately contact the gatehouse and landfill manager.
- Equipment operators will be equipped with two-way radios or cell phones.
- Alert other facility personnel.
- Assess extent of fire, possibilities for the fire to spread, and options for extinguishing the fire.
- If it appears that the fire can be safely fought with available fire-fighting devices, attempt to contain or extinguish the fire.
- If landfill personnel cannot extinguish the fire, contact the Fire Department by calling 911.
- Upon arrival of the Fire Department personnel, direct them to the fire and provide assistance as appropriate.
- Do not attempt to fight the fire alone.
- Do not attempt to fight the fire without adequate personal protective equipment.
- Be familiar with the use and limitations of fire-fighting equipment available on site.

7.4 Fire Protection Training

Landfill personnel will be trained in the contents of Section 7 – Fire Protection Plan in accordance with Section 3.3 – Training. Landfill personnel will maintain a thorough understanding of this SOP and will be trained in fire prevention and fire control as defined in this section. The following topics will be addressed:

- Identification of burning waste, smoke, steam, or heat being released from incoming waste loads
- Procedures to prevent and contain fuel spills
- Fire prevention
- Fire safety
- Firefighting procedures with fire extinguishers, soil, and water as appropriate
- Notification procedures should a landfill fire be observed

In addition, information will be provided to the local fire department regarding waste disposal operations, fire sources, and firefighting techniques related to landfills. Documentation of training will be placed in the site operating record in accordance with Section 3.3.

7.5 TCEQ Notification

The Atascocita RDF will make every reasonable effort to contact the TCEQ region office immediately upon detection of a fire if the fire is not extinguished within 10 minutes of detection. The TCEQ region office will be contacted immediately after detection, but no later than 4 hours by phone and in writing within 14 days. The notification will include a description of the fire and resulting response.

8 OPERATIONAL PROCEDURES

30 TAC §§330.131-330.175

8.1 Access Control

Public access to the landfill will be controlled by an existing perimeter fence located along the permit boundary or property boundary. Natural barriers along Garners Bayou and Williams Gully also control public access to the Atascocita RDF. Access to the landfill from Wilson Road is limited to the entrance road through the gatehouse area. The gate attendant controls access and monitors all vehicles entering and exiting the site.

8.1.1 Site Security

Site security measures are designed to prevent unauthorized persons from entering the site, to protect the facility and its equipment from possible damage caused by trespassers, and to prevent disruption of facility operations caused by unauthorized site entry.

Unauthorized entry into the site is minimized by controlling access to the landfill site with the perimeter fence, the entrance gate, and natural barriers. A perimeter fence is located along all sides of the permit boundary or property boundary. Perimeter fencing consisting of barbed wire, woven wire, wooden fencing, plastic fencing, pipe fencing, or other suitable material will be provided. A gate constructed of suitable fencing materials is located on the entrance road. The gate will be locked when the landfill is not accepting waste.

Entrance to the landfill is monitored by the gate attendant during waste acceptance hours. Outside operating hours, the gate to the site will be locked.

Entry to the active portion of the site will be restricted to designated personnel, approved waste haulers, and properly identified persons whose entry is authorized by site management. Visitors may be allowed on the active area only when accompanied by a site representative.

8.1.2 Traffic Control

Public access to the landfill will be provided via the entrance road from Wilson Road. Signs will be located along the entrance road directing traffic to the gatehouse. The gate attendant will restrict site access to authorized vehicles and direct these vehicles

appropriately. Waste hauling vehicles will be directed to appropriate fill areas by signs located along the landfill haul road and access road. These vehicles will deposit their loads and depart the site. Private, commercial, or public solid waste vehicles will not be allowed access to any areas other than the active portion of the landfill. Site personnel will provide traffic directions as necessary to facilitate safe movement of vehicles.

Within the site, signs will be placed along the landfill haul road and access road at a frequency adequate for users to be able to understand where disposal areas are and which roads are to be used. Roads not being used for access to disposal areas will be blocked or otherwise marked for no entry.

8.1.3 Inspection and Maintenance

The perimeter fence and gates will be inspected monthly. Refer to Section 8.25 of this SOP for a site inspection and maintenance schedule. Maintenance will be performed as necessary. Should a breach be detected during inspection or at any other time, every effort will be made to make repairs within 8 hours of detection. Notification is not required if permanent repair is made within 8 hours. Should repair require more than 8 hours, the TCEQ region office and any local pollution agency with jurisdiction that has requested to be notified will be notified of the breach within 24 hours of detection. Temporary repair will be performed within 24 hours of detection and permanently repaired within the time specified to the region office following notification.

8.2 Unloading of Waste

The landfill is authorized to receive municipal solid waste, special wastes allowable under §330.171, and industrial wastes allowable under §330.173. The categories of wastes that are prohibited at this site by state and federal regulations are discussed in Section 5 of this SOP. Special wastes will be handled at this landfill in accordance with TCEQ regulations and with Section 8.20 – Disposal of Special Wastes, Section 8.21 – Disposal of Industrial Waste, Appendix IVC – Special Waste Acceptance Plan, and Appendix IVD – Regulated Asbestos-Containing Material Plan of this SOP.

Trained personnel will monitor the incoming waste on the trucks at the gatehouse and at the unloading area/active working face. Trained personnel at the active working face will be on duty during waste acceptance hours to observe waste unloading.

Trained personnel at the active working face will have the authority and responsibility to reject loads which contain prohibited wastes. These personnel will also have the authority to require the hauler or transporter to remove prohibited waste immediately upon discovery. Should suspected prohibited waste be identified, the working face personnel will immediately notify the landfill manager. The landfill manager may direct staff to remove or manage prohibited waste appropriately, should the responsible hauler or transporter not be identified.

Solid waste unloading will be controlled to prevent disposal in locations other than those specified by site management. Any waste deposited in an unauthorized area will be promptly removed and disposed of properly at the active working face. Control will also be used to confine the working face to a minimum width consistent with the rate of incoming waste while allowing for safe and efficient operation. The maximum size of the unloading area will be 9 acres with a maximum width of approximately 400 feet.

A maximum of three working faces may be used during any specific time period, but typically one working face will be used except during inclement weather. The three active working faces include two working faces for disposal of municipal solid waste and one for RACM. The size of the working faces will be limited by the availability and capacity of site equipment to place cover soil, and the location of soil stockpiles, including those adjacent to the working face.

On days when RACM is accepted, the RACM unloading and disposal area will be a width consistent with the rate of incoming RACM while allowing for safe and efficient operation. The RACM unloading area is further discussed in Appendix IVD – Regulated Asbestos-Containing Material Plan.

The large items/white goods unloading and storage area will not be larger than 100 feet by 100 feet. Control will be used to confine the large items/white goods area to a minimum area consistent with the rate of incoming large items/white goods while allowing for safe and efficient operation. The large item/white goods storage area is further discussed in Section 8.9.

The liquid waste stabilization area is located within the solidification facility. The liquid stabilization facility is further discussed in Appendix IVC – Special Waste Acceptance Plan.

Any prohibited waste that is not discovered until after it is unloaded shall be returned to the vehicle that delivered the waste. The generator shall be responsible for the proper transportation and disposal of this rejected waste. In the event the unauthorized waste is not discovered until after the vehicle that delivered it has departed the site, the waste shall be segregated and controlled as necessary. An effort shall first be made to identify the entity that deposited the prohibited waste and have them return to the site and properly transport and dispose of the waste. A record of unauthorized waste removal will be maintained in the site operating record.

Signs with directional arrows and portable traffic barricades will help to restrict traffic to designated disposal locations. Signs will be placed along the access route to the current disposal area or other designated disposal areas that may be established. In addition, rules for waste disposal and prohibited waste will be prominently displayed on signs at the site entrance. Refer to Section 5 of this SOP for additional waste handling procedures.

8.3 Hours of Operation

The Atascocita RDF is authorized for waste acceptance 24 hours per day, 7 days a week. The Atascocita RDF currently accepts waste from public and private haulers from 5:00 a.m. to 6:00 p.m., Monday through Friday, and from 5:00 a.m. to 3:00 p.m. on Saturday. The Atascocita RDF will post on the site entrance sign the hours for waste acceptance from private and public waste haulers. The Atascocita RDF may be open other hours, as may be required to provide solid waste disposal services for special events, inclement weather, emergencies and other circumstances. The Atascocita RDF will notify the TCEQ regional office and will record waste acceptance hours outside of posted hours in the site operating record.

The Atascocita RDF provides waste disposal for individuals, businesses, and communities in Harris County and surrounding Texas counties. The service area for the facility has significant haul distances to the facility. Numerous communities and businesses have specific waste collection requirements to minimize traffic and other business impacts to their communities. The current authorization of 24 hours per day, 7 days per week is essential to provide access to the facility for its entire service area. Further, these operational hours are necessary to provide 24-hour per day access to the LFGTE facility, material delivery, construction, maintenance, and operational activities as required by this SOP.

The Atascocita RDF is authorized for site operations 24 hours per day, 7 days per week. Site operations include construction, earthmoving, monitoring, transportation of construction materials, heavy equipment operation, and other non-waste acceptance operations.

8.4 Site Signs

A sign will be displayed at the gated entrance to the site. This sign will measure at least 4 feet by 4 feet, and have lettering of at least 3 inches in height. The sign will state the name of the site, type of site, hours and days of operation, and the TCEQ permit number. An emergency 24-hour contact phone number and the local emergency fire department phone number will also be included. The emergency contact phone number will reach an individual with the authority to obligate the facility at all times the facility is closed. The site sign will be readable from the facility entrance.

8.5 Control of Windblown Solid Waste and Litter

The working face will be maintained and operated in a manner to control windblown solid waste. Windblown material and litter will be collected and properly managed to control unhealthy, unsafe, or unsightly conditions by the following methods:

- Waste transportation vehicles using this facility will be required to use adequate covers or other means of containment. The adequacy of covers or containment of incoming wastes will be checked at the gatehouse. A sign will be prominently displayed at the gatehouse stating that all loads shall be properly covered.
- The active working face will be limited to as small an area as practical for the safe operation of the incoming waste hauling vehicles, operation of compaction equipment, and delivery and placement of daily cover soils, and alternative daily cover.
- Daily cover or alternative daily cover will be applied to assist with the control of windblown waste.
- The facility will provide litter control fences, as necessary, at appropriate locations near the working face and elsewhere. The litter control fences will be constructed of wire or plastic mesh screens attached to portable or permanent frames or temporary fences. The litter control fence will be of sufficient height and will be located as close as practical to the active area to control windblown waste and litter.
- Windblown waste and litter along the entrance road, the gatehouse area, within the permit boundary, and that has accumulated along the permit boundary will be collected once a day during facility operations and returned to the active working face.
- Windblown waste or litter may occasionally escape the facility control measures and cross the permit boundary onto adjacent property, the facility will contact the adjacent property owners to seek permission for litter pick-up.
- Screening barriers such as temporary berms, trees, and visual screening berms may also serve as additional wind breaks.

8.6 Easements and Buffer Zones

8.6.1 Easements

In accordance with §330.141(a), solid waste unloading, storage, disposal, or facility operations will not occur within any easement, buffer zone, or right-of-way that crosses the site. No solid waste disposal will occur within 25 feet of the centerline of any utility line or pipeline easement, unless otherwise authorized by the TCEQ. All easements will be clearly marked as specified in Section 8.7 of this SOP. Pipelines and utility easements will be marked with posts extending a minimum of 6 feet above ground surface at intervals that do not exceed 300 feet.

8.6.2 Buffer Zones

The buffer zone is defined as the area between the permit boundary and the limit of waste disposal activities and solid waste processing activities, unless otherwise authorized. No solid waste unloading, storage, disposal, or solid waste processing and disposal operations will occur within any buffer zone. The buffer zones will provide for safe passage of fire-fighting and other emergency vehicles. Buffer zones are maintained at a minimum distance of 50 feet for Phases 1, 2, 3, and 4, and at a minimum distance of 125 feet for areas adjacent to Phases 5 and 6. Buffer zones are shown on Part III, Attachment D1.2 – Site Layout Plan. All buffer zones will be clearly marked as specified in Section 8.7 of this SOP.

8.7 Landfill Markers and Benchmark

Landfill markers will be installed to clearly mark significant features as described in §330.143(b). The markers will be posts (or other TCEQ approved material) and will extend at least 6 feet above the ground surface. The markers will not be obscured by vegetation and will be placed in sufficient numbers to clearly show the required boundaries. Markers that are removed or destroyed will be replaced within 15 days of their removal or destruction or 15 days following completion of construction activities within the affected area. Landfill markers will be inspected monthly and will be maintained and repaired or replaced within 15 days of discovering a marker does not meet regulatory requirements. The landfill markers will be maintained so that they are visible. Refer to Section 8.25 of this SOP for the site inspection and maintenance schedule. Inspection records will be maintained in the site operating record. Markers will be repainted as needed to retain visibility.

The required landfill markers are:

Landfill Markers

Marker	Color
Site Boundary	Black
Buffer Zone	Yellow
Easements and Rights-of-Way	Green
Landfill Grid System	White
SLER/GLER	Red
Floodplain	Blue

Guidelines for type, placement, and color coding of markers are outlined below.

- Site Boundary – Site boundary markers will be painted black. The markers will be placed at each corner of the site and along each boundary line at intervals no greater than 300 feet. Fencing may be placed within these markers, as required. In areas where the fence is located on the permit boundary, the fence posts may be painted black and used as site boundary markers.
- Buffer Zone – Buffer zone markers will be painted yellow. The markers will be placed along each buffer zone boundary at intervals of approximately 300 feet. The buffer zone distances vary along the permit boundary. Dimensions are shown from the permit boundary to the limit of waste on Part III, Attachment D1.2 – Site Layout Plan.
- Easements and Rights-of-Way – Easement and right-of-way markers will be painted green. The markers will be placed approximately along the centerline of an easement, along the boundary right-of-way, at each corner within the site, and at the intersection with the site boundary. Where it is impractical to place a marker, the marker will be offset from the easement right-of-way and the offset distance will be clearly painted on the marker.
- Landfill Grid System – Grid markers will be painted white. The grid system will consist of lettered markers along two opposite sides, and numbered markers along the other two sides. Markers will be spaced no greater than 100 feet apart measured along perpendicular lines. At a minimum, grid markers will delineate the area expected to receive waste within the next three years. The grid markers will be maintained during the active life of the site.
- SLER/GLER Area – SLER/GLER markers will be painted red. The markers will be placed so that all areas for which a SLER/GLER has been submitted and approved by the TCEQ are readily determinable. Such markers are to provide site workers with immediate knowledge of the extent of approved disposal areas. These markers will be located so that they are not destroyed during operations until operations extend into the next SLER/GLER. The location of these markers will be tied into the landfill grid system and will be reported on each SLER/GLER submitted. SLER/GLER markers will not be placed inside the evaluated areas.
- 100-Year Flood Limits – 100-year floodplain markers will be painted blue. 100-year floodplain markers are required along the limits of Garner's Bayou and Williams Gully.

A permanent benchmark has been established within the permit boundary in an area that is readily accessible and will not be used for disposal. The benchmark is a United States Coast and Geodetic Survey benchmark consisting of a bronze survey marker stamped with the elevation and survey date and set in concrete. The location of

the permanent benchmark is identified in Part III, Attachment D1.2 – Site Layout Plan. The benchmark will be maintained so that is visible during operating hours.

8.8 Materials Along the Route to the Site

Consistent with §330.145, the Atascocita RDF will take steps to encourage that vehicles hauling waste to the site are enclosed or provided with a tarpaulin, net, or other means to properly secure the load. These steps are necessary to prevent the escape of any part of the load by blowing or spilling. The landfill will post signs at the entrance gate and gatehouse notifying haulers of this requirement and will enforce this rule by applying surcharges or other similar measures. The landfill manager may report habitual offenders to local law enforcement officers. The Atascocita RDF will provide for the cleanup of waste materials spilled along regular delivery routes within two miles of the entrance on Wilson Road. Cleanup of the spilled materials will be performed once per day. The Atascocita RDF will consult with officials of TxDOT concerning the cleanup of state highways and right-of-ways consistent with §330.145.

8.9 Disposal of Large Items

A storage area for large items and white goods may be provided, should these items be accepted. The large items and white goods include items such as ovens, dishwashers, freezers, air conditioners, and other large items. These items will be recycled to prevent a nuisance and to preclude discharge, but will not be stored in excess of 180 days.

Large items that are not recycled will be disposed of at the working face. Care will be taken during disposal of large items to ensure that: (1) large items are excluded from the initial 5 feet of waste placed above the protective cover of a liner, (2) large items are placed such that they do not interfere with continued waste filling, and (3) that smaller municipal solid waste is placed and compacted around the large items.

Refrigerators, freezers, air conditioning units, or other items containing chlorinated fluorocarbon (CFC) refrigerant will be handled in accordance with 40 Code of Federal Regulations (CFR) §82.156(f), as amended. Refrigerators, freezers, air conditioning units, or other items containing CFC will not be accepted unless the CFC contained in the item has been captured and sent to an approved CFC disposal site or recycling facility and the generator or transporter provides written certification that the CFC has been evacuated from the unit. The generator, transporter, or customer may also contract with the landfill to have the CFC removed prior to disposal.

8.10 Odor Management Plan

The Atascocita RDF will manage odors associated with waste acceptance and disposal operations consistent with this Odor Management Plan. This plan addresses sources of odors and includes general instructions to control odors or sources of odors.

Measures to control odors and sources of odors may include, but are not limited to, the following items:

- The facility will accept wastes that may generate odors including municipal water and wastewater treatment plant sludges, grease trap waste, grit trap waste, other liquid waste from municipal sources, and dead animals. The sludges and other liquid wastes are required to pass a paint filter test prior to disposal at the active working face. Liquid wastes may be stabilized on site in accordance with Appendix IVC – Special Waste Acceptance Plan.
- Other sources of odors may include ponded water, decomposition of wastes, leachate, contaminated water, a liquid stabilization facility, and landfill gas (LFG).
- Wastes that are considered to generate significant odors are usually classified as special wastes. Refer to Section 8.20 – Disposal of Special Wastes for waste disposal procedures for odorous wastes and Appendix IVC – Special Waste Acceptance Plan.
- Unloading of these wastes at the active working face will be consistent with procedures established in Section 8.2 – Unloading of Waste, which limits the active working face to a minimum width, allowing prompt placement of daily cover or alternative daily cover over wastes that may produce odors.
- Spills of these odor producing wastes will be managed by collecting and transporting these wastes to the active working face for prompt disposal.
- Daily cover consisting of a minimum of 6 inches of soil or approved alternative daily cover will be placed over these wastes at the end of the working day consistent with procedures established in Section 8.18 – Landfill Cover.
- Waste that is determined to require additional procedures, such as dead animals, will be isolated within the active working face and immediately covered with a minimum of 3 feet of other solid waste or a minimum of 2 feet of earthen material upon receipt. Additional daily cover soil will be placed if needed.
- Sludges may be mixed with other absorptive wastes to minimize odors. Waste with strong odors may be placed at the working face in a manner that allows immediate cover placement.
- Ponded water at the site will be controlled as detailed in Section 8.19 of this SOP. Odors will be eliminated through regrading of areas consistent with Section 8.18 – Landfill Cover.
- Leachate and contaminated water will be managed in accordance with Part III, Attachment D6 – Leachate and Contaminated Water Management Plan. Leachate will be transferred from the leachate collection system either directly to an enclosed liquid transfer vehicle or an on-site enclosed leachate storage tank(s). Leachate will either be transferred directly to a transfer vehicle for an on-site or off-site treatment facility or piped for recirculation.

- The existing misting system installed at the Atascocita RDF will be operated on an as needed basis to control landfill odors. The misting system consists of a centralized high pressure pumping module(s) connected to a network of hoses and atomization heads. The pump module will mix and deploy an odor suppression or odor neutralization product mixed with water. A copy of the MSDS for the odor control product will be included in the Site Operating Record. The system deploys a mist that neutralizes or suppresses landfill odors. Currently the atomization lines are installed along the west side of the site from the site entrance road north along the landfill perimeter for a distance of approximately 3,900 feet. Based on waste placement activities the existing misting system may be reduced, extended, or a portable misting system may be used. The misting system may be removed or abandoned in place when its use is not required.
- Odor reduction may be achieved by adjustments to the existing gas extraction system or by the installation of additional gas extraction wells.

8.11 Disease Vector Control

The need for vector control (control of rodents, flies, mosquitoes, etc.) will be minimized through daily site operations. Activities designed to control on-site populations of disease vectors include minimization of the size of the active working face; placement of daily, intermediate, and final cover; adherence to the ponded water plan; and following the detailed procedures described in this SOP. The Atascocita RDF will conduct inspections of the daily cover as required by Section 8.25 – Site Inspection and Maintenance Schedule to observe waste disposal operations and to remove areas that may be conducive to insects and rodents. These areas will be promptly eliminated in accordance with procedures established in this SOP. Should daily operations not control vectors, a licensed professional will apply pesticides to ensure that proper chemicals are used and that they are properly applied.

In addition, bird control procedures are established for the facility consistent with a plan approved by the FAA. The following procedures will be used throughout the active site life of the facility:

Methods: Pyrotechnics shall be the principle control technique. Two primary types of pyrotechnics shall be used, namely bangers and screamers. The pyrotechnic devices are shells that are fired from a pistol. A shotgun with cracker shells may be used intermittently to minimize the risk of birds acclimating to bangers and screamers. Bird cannons, remote control airplanes, and other technical devices determined to be feasible may also be used.

Personnel: A full-time employee shall be designated as the bird controller.

Training: A third party consultant experienced in bird control programs will train the bird controller. The consultant shall field train the bird controller in “tricks-of-the-trade” and safety.

Records: The bird controller shall keep daily records of the approximate number of pyrotechnic shells fired. The bird controller shall monitor the supply of shells to ensure re-order on a timely basis.

Monitoring: Annual visits by a bird control expert will be held to observe the effectiveness of the Bird Control Program. The bird control expert shall prepare a report of his or her observations and recommendations on improving the control plan.

8.12 Site Access Roads

The entrance road provides access from Wilson Road to the gatehouse and other entrance facilities for waste hauling vehicles, operating personnel, and visitors. The entrance road is approximately 1,800 feet to the beginning of the internal access road and is constructed of concrete pavement through the gatehouse facility. The entrance road will then transition to an all-weather, crushed stone, gravel, chipseal, or other suitable material surface beyond the gatehouse and entrance facility area. Other internal landfill roads will be constructed with a crushed stone surface or other suitable material. The all-weather surface entrance, access, and internal roads will provide mud control for the waste hauling vehicles prior to exiting the site and returning to public access roads. During wet weather conditions the landfill manager will routinely inspect the site and implement measures to further minimize mud tracking onto public access roads, as necessary. Speed bumps along the main access roads between the fill areas and the gatehouse will help jar mud from vehicles. Should mud or other associated debris be tracked onto Wilson Road, the material will be removed daily.

A truck wheel wash station may be used to further minimize tracking onto public roads, as necessary. Water from the wheel wash will be collected and stored in a concrete settlement basin for reuse in the wheel wash. Periodically, the settlement basin will be drained and the sediment will be removed from the basin, or the sediments within the settlement basin will be solidified in place and then removed from the basin. The wash water will be hauled to an authorized off-site facility for treatment and disposal. The sediment, following solidification and passing the paint filter test, will be disposed of in the landfill.

The landfill haul roads and access roads will be maintained in a reasonably dust free condition by periodic spraying from a water truck. During dry weather conditions the landfill manager will routinely inspect the site and establish a frequency, if necessary, to spray the access roads with water to prevent nuisance conditions from developing. Grading equipment will be used weekly to control or remove mud accumulations on internal roads, including the entrance road, as needed. Stockpiles of crushed stone, concrete rubble, masonry demolition debris, or other similar material will be available for use in maintaining passable internal access roads, including regrading to minimize depressions, ruts, and potholes. Refer to Section 8.25 of this SOP for the site inspection and maintenance schedule. The site entrance road, landfill haul road, and access roads will be maintained in a clean and safe condition. Litter and debris will be picked up daily and returned to the active working face.

8.13 Salvaging and Scavenging

Salvaging will not be allowed to interfere with prompt sanitary disposal of solid waste or to create public health nuisances. Salvaged materials will be considered as potential recycled materials. Salvaged items will be removed from the site often enough to prevent the items from becoming a nuisance, to preclude the discharge of pollutants from the area, and to prevent an excessive accumulation of the material at the site. Special wastes received at the site will not be salvaged. Pesticide, fungicide, rodenticide, or herbicide containers will not be salvaged unless they are salvaged through a state-supported recycling program. Scavenging will be prohibited at all times and not allowed.

8.14 Endangered Species Protection

Development of the landfill shall be conducted to avoid and minimize potential impacts to endangered or threatened species. The facility and the operation of the facility will not result in the destruction or adverse modification of the critical habitat of endangered or threatened species, or cause or contribute to the taking of any endangered or threatened species.

A detailed threatened and endangered species survey and assessment was conducted by a qualified biologist at Knudson, L.P. Coordination with the United States Fish and Wildlife Service and the Texas Parks and Wildlife Department regarding the locations and specific data relating to endangered and threatened species in Texas is provided in Part II, Appendix IIE – Endangered or Threatened Species Documentation.

8.15 Landfill Gas Control

The control and monitoring of landfill gas for the Atascocita RDF will be in accordance with the Landfill Gas Management Plan (LFGMP) included in Part III, Attachment G. The LFGMP was developed in accordance with §330.371. The LFGMP provides for inclusion of applicable documentation in the site operating record, and for submittal to the executive director.

8.16 Oil, Gas, and Water Wells

8.16.1 Water Wells

There are three known abandoned water wells within the permit boundary but outside the landfill footprint of the Atascocita RDF. There is one existing non-potable water well within the permit boundary that is located outside the limits of waste disposal near the site entrance facility. However, should any unknown water wells be discovered during facility development, the Atascocita RDF will immediately provide written notification to the TCEQ executive director of their location.

Within 30 days of finding any water wells, the landfill manager will provide written certification to the executive director of the TCEQ that all such wells have been capped, plugged, and closed in accordance with all applicable rules and regulations of the TCEQ or other applicable state agency. A copy of the well plugging report for any found well will be submitted to the appropriate state agency and executive director within 30 days after the well is plugged. A permit modification will be submitted to the executive director if revisions to the liner installation plan are required as the result of well abandonment.

8.16.2 Oil and Gas Wells

There are no known existing or abandoned crude oil wells, natural gas wells, or other wells associated with mineral recovery within the Atascocita RDF permit boundary. If any abandoned crude oil wells, natural gas wells, or other wells associated with mineral recovery are located, the landfill will provide written notification to the TCEQ's executive director of their location within 30 days of their discovery. For abandoned crude oil wells, natural gas wells, or other wells associated with mineral recovery, the landfill will provide the executive director of the TCEQ with written certification that all such wells have been properly capped, plugged, and closed in accordance with all applicable rules and regulations of the Railroad Commission of Texas. Proper notification of any future producing oil or gas wells on the site will be provided to the TCEQ. Any such wells will not negatively affect or hamper landfill operations.

A copy of the well plugging report to be submitted to the appropriate state agency will also be submitted to the executive director of the TCEQ within 30 days after the well has been plugged. A permit modification will be submitted to the executive director if revisions to the liner installation plan are required as the result of well abandonment.

8.17 Compaction

Compaction of incoming waste provides more efficient use of available space and reduces the amount of settling after the fill is complete. Compaction of the waste will be accomplished by a landfill compactor weighing in excess of 40,000 pounds. The site dozer will be used to compact waste should the compactor be temporarily out of service for repairs. Adequate compaction will be accomplished to minimize future consolidation and settlement, and provide for the proper application of intermediate and final cover. The incoming waste will be spread in layers and thoroughly compacted.

The landfill manager or designee will be present during the placement of the first 5 feet of waste over the liner system. The landfill manager or designee will verify and document that the initial 5 feet of waste does not contain large bulky items that could damage the liner system or that cannot be compacted to the required density. Waste ballast must be compacted to a density of not less than 1,200 lb/cy or 44 pcf.

The landfill will document that the waste used for ballast has been compacted with multiple passes of a wheeled compactor that weighs in excess of 40,000 pounds. The form to be used by the landfill is provided by the TCEQ.

8.18 Landfill Cover

8.18.1 Soil Management

Management of soil for use in and around the landfill area will be an ongoing process at the Atascocita RDF. In general, soil for use as daily cover, intermediate cover, final cover, and other uses will be available from areas within the permit boundary. Soil will be obtained from excavation that is ongoing as part of the development of future landfill cells or from other suitable sources. This material may be available near the working face (the exact distance varying daily, weekly, etc., depending on the exact stage of development).

In addition to the available material located within the permit boundary, stockpiles of material will be kept available on site. The stockpile will consist of soil that has not previously come in contact with waste, and will be of sufficient volume to provide at least one day's application of 6 inches of daily cover over the working face. As this stockpile is used, it will be replenished. The soil may also be used in emergency situations for fire control, as discussed in Section 7.

8.18.2 Daily Cover

Daily cover of waste is necessary to control disease vectors, windblown waste, odors, fires, scavenging, and to promote runoff from the fill area. At least 6 inches of well-compacted soil cover material that has not been previously mixed with garbage, rubbish, or other solid waste will be placed over all solid waste at the end of each operating day, if alternative daily cover is not used. Refer to Section 8.18.4 for authorized alternative daily cover materials and placement procedures.

To ensure that the daily cover soil will be adequate (i.e., minimize vectors, contaminated stormwater runoff, odors, etc.) the following procedures will be followed:

- The daily cover will be sloped to drain.
- The daily cover will be well compacted with the dozer tracks to minimize infiltration of stormwater, graded to drain, and will not have any waste visibly protruding through it.
- The landfill manager or his designee will document where daily cover has been placed and visually inspect during placement that a minimum of 6 inches (compacted thickness) of daily cover soil has been placed and that no waste is exposed through it. The landfill manager or his designee shall document, on a daily basis, the daily cover placement area and indicate that he has visually verified the thickness and condition in the Cover Inspection Record, as discussed in Section 8.18.8.

- Runoff from areas that have intact daily cover is not considered to have come into contact with the working face or leachate and is considered uncontaminated stormwater runoff.
- After each rainfall event, the landfill manager or his designee will inspect all daily cover areas for erosion, exposed waste, or other damage and repair as necessary. Runoff from damaged or eroded areas will be handled as contaminated water until repairs are completed.
- Alternative Daily Cover (ADC) will be used as applicable. See the Alternative Daily Cover Operating Plan (ADCOP) in Appendix IVB.

Areas with 6 inches of daily cover must be inspected daily for erosion, ponded water, seeps, protruding waste, or other detrimental conditions that may cause contaminated runoff from the daily cover. Once the area becomes active again, the daily cover may be stripped off prior to additional waste placement and used as daily cover in other areas.

8.18.3 Intermediate Cover

All areas that receive waste and then become inactive for longer than 180 days will be covered with an additional 6 inches of well-compacted earthen material, for a total cover thickness of at least 12 inches. The intermediate cover will be graded to prevent erosion and ponding of water. The additional 6 inches of earthen material will be capable of sustaining native plant growth and will be seeded or sodded following its application for erosion control. Plant growth and other erosion control features placed as part of the intermediate cover will be maintained. Runoff from areas that have received intermediate cover is considered to have not come into contact with the active working face or leachate, and is considered uncontaminated stormwater runoff.

8.18.4 Alternative Daily Cover

The Atascocita RDF is authorized to use alternative daily cover material (ADC) in accordance with §330.165(d). The ADC use is limited to a 24-hour period after which either waste or daily cover, as defined in §330.165(a) and applied as described in Section 8.18.2 of this SOP, must be placed. The authorized ADC materials and placement procedures are included in Appendix IVB – ADCOP.

The Atascocita RDF reserves the right to request a temporary authorization to use additional types of alternative daily cover material in accordance with §305.62(k)(1)(A).

8.18.5 Temporary Waiver

The Atascocita RDF does not anticipate requesting a waiver from the cover requirements of §330.165(a), (c), and (d) due to extreme climatic conditions. Should the landfill decide to request a waiver due to extreme seasonal climatic conditions, the landfill will request a waiver in accordance with this section.

8.18.6 Final Cover

Final cover placement over individual areas will be in accordance with Part III, Attachment H – Closure Plan and will permit ongoing landfilling operations to continue until the time of final closure. Surface water will be managed throughout the active life of the site to minimize infiltration into the filled areas and to minimize contact with solid waste. Erosion of final cover will 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 postclosure maintenance period. Refer to Section 8.25 for a site inspection and maintenance schedule.

In general, final cover placement over completed portions of the site will consist of the following steps:

- Survey controls will be implemented to control the filling of solid waste to the bottom level of the final cover layer elevation.
- The final cover system layers will be constructed. Testing of the various components of the final cover system will be performed in accordance with Part III, Attachment D8 – Final Cover Quality Control Plan.
- A final cover certification report complete with an as-built survey will be prepared by an independent registered professional engineer and submitted to the TCEQ for approval.
- The TCEQ-approved final cover certification report will be maintained in the site operating record, and the cover inspection record, as described in Section 8.18.8, will be updated to reflect the area where final cover has been placed. The TCEQ region office will also be notified that final cover placement has occurred at the site.

8.18.7 Erosion of Cover

The landfill will inspect intermediate cover at the site on a weekly basis. The final cover system, including the erosion control structures, will be maintained during and after construction. During the active life of the site, the landfill will inspect the final cover system on a weekly basis. Erosion gullies or washed out areas of the intermediate or final cover, which are deep enough to jeopardize the intermediate or final cover, will be repaired within five days of detection. Repair of final cover includes restoring cover, grading, compacting, and seeding as required. An eroded area is considered to be deep enough to jeopardize the intermediate or final cover if it exceeds 4 inches in depth as measured perpendicular from the slope face or surface. Should additional time be required for repairs due to weather related delays, the landfill will notify the TCEQ region office of an alternate schedule. Documentation of weather delays for the repairs will be included in the cover inspection record. Weekly inspections and restorations are required for the active life of the landfill. Refer to Section 8.25 for the site inspection and

maintenance schedule. Documentation of inspections, detection of erosion, and completion of repairs are required in accordance with Section 8.18.8 – Cover Inspection Record.

Postclosure care inspection and repair procedures of the final cover are outlined in Part III, Attachment I – Postclosure Plan.

8.18.8 Cover Inspection Record

Throughout the landfill operation, a cover inspection record will be maintained and be readily available for inspection in accordance with §330.165(h). For daily cover, intermediate cover, and alternative daily cover, the record will specify the date cover was accomplished (no exposed waste), area covered (by use of the grid system), how it was placed, and when it was completed. For final cover, the record will show the final cover area completed, date cover was applied, and thickness of final cover. The final cover certification report for each area will be referenced in the record. Each entry in the record will be certified by the signature of the landfill manager or designee that the work was accomplished as stated in the record. The cover inspection record will document inspections required under Section 8.18.7 – Erosion of Cover, §330.165(g) including findings, and corrective action taken.

8.19 Ponded Water

The Atascocita RDF will prevent ponding of water over waste areas that have received waste through site operations including grading and maintenance. The Ponded Water Plan provides direction to the landfill operations for the prevention and elimination of ponded water. The Ponded Water Plan follows:

- The landfill will place daily cover, intermediate cover, and final cover in accordance with requirements established in Section 8.18 – Landfill Cover.
- The landfill will inspect the surface of areas that have received waste and landfill cover consistent with Section 8.18 – Landfill Cover and Section 8.25 – Site Inspection and Maintenance Schedule.
- Site grading and maintenance as required by Section 8.18 will minimize the ponding of water over areas containing waste.
- Should ponding of water occur, the depressions will be filled in and regraded within seven days of the occurrence, weather permitting. Landfill cover will be repaired consistent with procedures specified in Section 8.18.

- Diversion berms and containment berms are constructed and maintained at the active working face to minimize contaminated water within the active working face in accordance with Part III, Attachment D6 – Leachate and Contaminated Water Plan.
- If the ponded water has come into contact with waste, or waste contaminated soils, it will be treated as contaminated water and handled in accordance with Part III, Attachment D6 – Leachate and Contaminated Water Management Plan.

8.20 Disposal of Special Wastes

8.20.1 Special Wastes

Special wastes, as defined in §330.3, may be accepted for disposal at the facility in accordance with §330.171(b) and (c). Special wastes shall be accepted at the site in accordance with Appendix IVC – Special Waste Acceptance Plan. The special wastes that will be accepted at the site and handling procedures are discussed in Appendix IVC.

8.21 Disposal of Industrial Waste

Industrial waste (nonhazardous) is defined by §330.3 as solid waste resulting from or incidental to any process of industry or manufacturing, mining, or agricultural operations. Class 2 and Class 3 industrial solid wastes will be accepted consistent with the procedures outlined in Appendix IVC – Special Waste Acceptance Plan, provided disposal of these wastes does not interfere with proper operation of the facility.

Class 1 industrial solid waste requiring executive director approval pursuant to §330.173 will not be accepted, except RACM that has been designated Class 1 industrial solid waste due to its asbestos content, which will be accepted in accordance with the procedures in Section 8.20.1. Refer to Section 5 – Detection and Prevention of Disposal of Prohibited Wastes, Section 8.2 – Unloading of Waste, and Appendix IVC – Special Waste Acceptance Plan for waste screening procedures.

The Atascocita RDF previously accepted Class 1 non-hazardous industrial waste for disposal in Phases 2, 3, and 4 within the current waste disposal footprint. As stated above, the Atascocita RDF will not accept Class 1 industrial solid waste, except RACM, in Phases 5 and 6.

8.22 Visual Screening of Deposited Waste

Existing topography and vegetation provide natural screening of deposited waste. Visual screening of deposited waste is provided as part of normal waste disposal operations and sequence of development. During below ground disposal operations, the

landfill will not require visual screening of deposited waste. As the landfill is developed above ground, the landfill will construct final cover as the landfill reaches final contours. As the site is developed, the visual effect of the disposal activities will be minimized through the use of screening provided by fencing, planted vegetation, and natural vegetation located within the buffer zone.

8.23 Leachate and Gas Condensate Recirculation

The Atascocita RDF may recirculate leachate and landfill gas condensate in accordance with Part III, Attachment D6 – Leachate and Contaminated Water Management Plan.

8.24 Contaminated Water Discharge

The Atascocita RDF will take all steps necessary to control and prevent the discharge of contaminated water from the facility. Should the discharge of contaminated water become necessary, the landfill will obtain specific written authorization from the TCEQ prior to discharge. All water coming in contact with waste or contaminated soils will be treated as contaminated water. Runon and runoff for the 25-year, 24-hour storm event will be controlled following the procedures set forth in Part III, Attachment D6 – Leachate and Contaminated Water Management Plan. The landfill will be operated consistent with §330.15(h)(1)-(4) regarding discharge of solid wastes or pollutants into waters of the United States.

8.25 Site Inspection and Maintenance Schedule

Item	Task	Schedule	Inspector	Type of Inspection
Fence/Gate	Inspect perimeter fence and gate for damage, gaps, intrusions, and the like. Make repairs if necessary.	Monthly	Landfill Manager or Designee	Document in the Site Operating Record
Windblown Waste	Police working face area, wind fences, access roads, entrance area, and perimeter fence for loose trash. Clean up as necessary.	Daily	Landfill Manager or Designee	Document in the Site Operating Record
Waste Spilled on Route to the Site	Police entrance area and all roads for at least 2 miles in either direction of site entrance for loose trash. Clean up as necessary.	Daily	Landfill Manager or Designee	Document in the Site Operating Record
Landfill Markers	Inspect all landfill markers for damage, color coding and general location. Correct or replace damaged markers within 15 days of discovery.	Monthly	Landfill Manager or Designee	Document in the Site Operating Record
Site Access Road	Inspect site access road for damage from vehicle traffic, erosion, or excessive mud accumulation. Maintain as needed with crushed rock or stone. Grading equipment will be used at least once per week to control or remove mud accumulations on roads as well as minimize depressions, ruts, and potholes.	Weekly – more often during wet weather or extended dry weather periods.	Landfill Manager or Designee	Document in the Site Operating Record
Daily Cover	Inspect for proper placement, thickness, and compaction. Correct problems as needed.	Daily at the active face. All daily cover areas will be inspected daily and after each rainfall event.	Landfill Manager or Designee	Document in the Site Operating Record
Intermediate Cover	Inspect for proper placement, thickness, erosion, compaction, and for presence of waste or other contamination. Correct problems as needed.	Weekly and within 24 hours of a rainfall event of 0.5 inch or more. Repair erosion within five days of detection.	Landfill Manager or Designee	Document in the Site Operating Record

8.25 Site Inspection and Maintenance Schedule – Continued

Item	Task	Schedule	Inspector	Type of Inspection
Final Cover	Inspect for proper placement, thickness, compaction, slope, settlement, and erosion. Maintenance will be ongoing throughout postclosure care period. Correct problems as needed.	Weekly and within 24 hours of a rainfall event of 0.5 inch or more. Repair erosion within five days of detection.	Landfill Manager or Designee	Document in the Site Operating Record
Leachate	Record depth of leachate in sump, as required.	Monthly	Landfill Manager or Designee	Document in the Site Operating Record
Ponded Water	Inspect daily cover, intermediate cover, and final cover areas for potential areas that may pond water. Regrade as required. Remove ponded water over intermediate and final cover areas. Contaminated ponded water removed in accordance with Attachment D6 – Leachate and Contaminated Water Management Plan.	Daily at active face and daily cover areas. Weekly for intermediate and final cover areas. Remove ponded water within seven days of occurrence, weather permitting.	Landfill Manager or Designee	Document in the Site Operating Record
Liquid Waste Stabilization Area	Inspect liquid waste stabilization area, as required in accordance with Appendix IVC – Special Waste Acceptance Plan.	Daily when liquid waste solidification area is in operation.	Landfill Manager or Designee	Document in the Site Operating Record

ATASCOCITA RECYCLING AND DISPOSAL FACILITY

**APPENDIX IVA
LOAD INSPECTION REPORT**

APPENDIX IVA

LOAD INSPECTION REPORT

Date and Time of Inspection: _____

Inspector's Name: _____

Name of Hauling Company: _____ Phone Number: _____

Address: _____ City: _____ State: _____ Zip: _____

Driver's Name: _____ Vehicle License Number: _____

Type of Vehicle: _____ (e.g., roll-off, front loader, dump truck)

Size of Load, yards: _____ Sources of Wastes: _____

LOAD CONTENTS

Waste	Est. % by Vol.	Waste	Est. % by Vol.
Household wastes		Yard waste, brush, stumps	
Wood		Containers	
Metal		Bulk liquids	
Paper, cardboard		Powders, dusts	
Plastic, rubber, glass		Soil	

PROHIBITED WASTE INDICATORS

	YES	NO
Labeled hazardous waste		
Batteries		
Oil		
Medical		
Radioactive		
Ashes		
Soils		
Odors, unusual		
Colors, unusual		
Heat, excessive		
Smoke		

INSPECTION RESULTS

Prohibited wastes identified? _____

Further action required? (e.g., none, lab tests, notification) _____

Samples sent to lab? _____ Lab Name: _____ Phone: _____

Tests requested: _____

Driver Signature _____

Load Inspector Signature _____

**ATASCOCITA RECYCLING AND DISPOSAL FACILITY
HARRIS COUNTY, TEXAS
TCEQ PERMIT APPLICATION NO. MSW 1307D**

PERMIT AMENDMENT APPLICATION

PART IV – SITE OPERATING PLAN

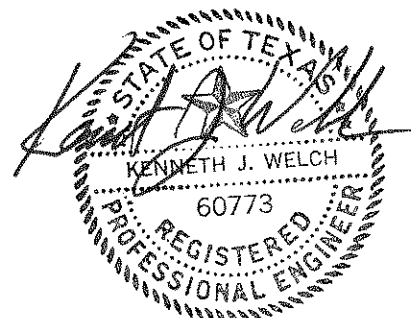
APPENDIX IVB

ALTERNATIVE DAILY COVER OPERATING PLAN

Prepared for

Waste Management of Texas, Inc.

September 2010



9/13/2010

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL

1700 Robert Road, Suite 100 ♦ Mansfield, Texas 76063 ♦ 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION No. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION No. 50222

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APPENDIX IVB-A
Geosynthetic Tarps



1 INTRODUCTION

30 TAC §330.165(d)

This Alternative Daily Cover Operating Plan (ADCOP) has been prepared for the Atascocita RDF consistent with §330.165(d). This plan is part of the Site Operating Plan (SOP) and will be maintained in the site operating record for the facility. The purpose of this ADCOP is to address the following issues:

- Description and thickness of each ADC material
- Effect of the ADC on vectors, fires, odors, and windblown litter
- Operation methods to be utilized at the site when using the ADC
- Chemical composition of the material and the MSDS(s) for the ADC (if applicable)

The Atascocita RDF is permitted to use two types of ADC: petroleum contaminated soils and tarps of various geosynthetic materials. These materials are identified by reference to the Alternative Daily Cover Operating Plan as included in MSW Permit No. 1307C, dated December 8, 2004, Section VIII – Other Permit Conditions, Paragraph G.

As specified in the SOP, ADC may be used to cover exposed waste except when the landfill is to be closed for a period greater than 24 hours (unless otherwise approved by the TCEQ). ADC may also be used to cover exposed waste in lieu of soil daily cover. However, if the area in which ADC has been used is not filled over with waste within 24 hours, the area will be covered with a minimum of 6 inches of clean daily cover soil. Petroleum contaminated soils may be used to cover waste for periods of time greater than 24 hours since they provide coverage equivalent to clean soil.

2 MATERIAL CHARACTERISTICS

30 TAC §330.165(d)(1)(A, B, D, and E)

2.1 Description of Materials

The following types of ADC materials may be used at the Atascocita RDF. Other ADC materials by other manufacturers that have similar characteristics may be used at the Atascocita RDF. In accordance with §330.165(d)(1)(A), the proposed ADC materials are as follows:

- Petroleum contaminated soils that are authorized by TCEQ for disposal and/or use as daily cover material may be applied as daily cover. This soil, or a combination of this soil and clean soil, will be applied in at least a 6-inch thickness.
- Various geosynthetic materials will be used as tarps. These tarps are available in 12-mil, 16-mil, and 20-mil thicknesses. The material characteristics for several approved tarp manufacturers are included in Appendix IVB-A.

2.2 Chemical Characteristics

In accordance with §330.165(d)(1)(D), the chemical characteristics of the ADC materials are included in Appendix IVB-A. The tarp materials are manufactured products consisting of polyethylene and/or polypropylene materials. The ADC materials proposed for use at the Atascocita RDF are not reactive, ignitable, or corrosive. The requirements for acceptance of petroleum contaminated soils are included in §330.165(d)(4); these soils will meet the TCEQ requirements for alternative daily cover material. Material Safety Data Sheets (MSDS) for the polyethylene and/or polypropylene tarps are included in Appendix IVB-A.

2.3 Effectiveness

In accordance with §330.165(d)(1)(B), the ADC materials to be used at the Atascocita RDF have proven to be effective on vectors, fires, odors, and windblown litter and waste. The materials identified for use as ADC materials have been used at the facility. Material effectiveness will be included in the status report(s) as required by §330.165(d)(2) and Section 4 of this ADCOP.

The polyethylene and/or polypropylene fabric placed over the active waste fill area seals the waste fill from rain, wind, and combustible material. The barrier limits intrusion into

the active waste fill area from vectors, wind, rainfall, and potential combustible materials, which reduces the potential for vectors, odors, windblown waste, and fires.

Petroleum contaminated soils provide the same effective control as clean soil ensuring protection from vectors, fires, odors, and windblown waste and litter. No petroleum contaminated soils will be used if they would create nuisance odors.

3 OPERATIONAL METHODS

30 TAC §330.165(d)(1)(C)

The following subsections discuss the operational procedures that will be used to employ the ADC materials. For each type of ADC, landfill personnel will verify that the waste fill area has been covered with the minimum required thickness at the completion of each working day.

3.1 Petroleum Contaminated Soil Material

Petroleum contaminated soil material may be stockpiled near the working face and spread over waste with a dozer or similar equipment to a minimum thickness of 6 inches. Clean soil may be added as necessary to obtain the appropriate thickness.

3.2 Polyethylene and/or Polypropylene Fabric

The polyethylene and/or polypropylene fabric and other tarp or liner materials will be deployed as follows:

1. Panels of ADC material will be pulled over the working face.
2. The perimeter of the tarps will be anchored approximately every 20 feet with tires, sandbags, or similar material.
3. The tarps will be removed the following morning using landfill equipment and site personnel and stored in an inactive area.

4 ADC VERIFICATION AND INSPECTION PROCEDURES

30 TAC §330.165(d)(2)

At the end of each working day, landfill personnel will inspect the working face to confirm that the minimum thickness of an approved ADC has been placed over the working face in accordance with this ADCOP. Landfill personnel will routinely assess the effectiveness of each ADC in controlling vectors, fires, odors, and windblown waste. Daily application of ADC will be documented and maintained in the site operating record.

In the event that the ADC does not control vectors, fires, odors, or windblown waste, the ADC application process will be re-evaluated to ensure that the ADC materials adequately cover the working face and serve their intended purpose. Any required changes to the ADC operational procedures will be documented in the site operating record.

Atascocita RDF reserves the right to request a temporary authorization to use additional types of alternative daily cover material in accordance with §305.62(k)(1)(A). A status report on the additional alternative daily cover materials will be submitted on a two-month basis during the temporary authorization period describing the effectiveness of the alternative material in accordance with §330.165(d)(2).

**APPENDIX IVB
ALTERNATIVE DAILY COVER OPERATING PLAN**

**APPENDIX IVB-A
GEOSYNTHETIC TARPS**

THOR TARP

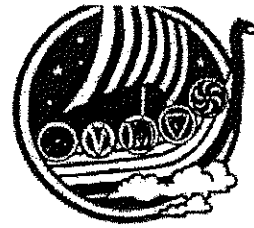


THOR Tarp

DIV. OF

ODIN

INTERNATIONAL, INC



DURASHIELD™ 12000

PROPERTY	TEST METHOD(S)	VALUE
Count		Nominal 24 x 16 tapes/inch
Weight		10 oz. per sq. yd.
Tensile strength (Grab method)	ASTM D1682-64	
- MD		440 lbs.
- TD		335 lbs.
Tear strength (Tongue method)	ASTM D2261-71	
- MD		65 lbs.
- TD		65 lbs.
Mullen burst	ASTM D751	610 psi
Coating thickness		2 mil average two sides
Scrim type		Clear tapes
Color		Natural
Width		Up to 12 feet without seams- unlimited with seams (heat, sewn, extrudate)

... These values are typical data are not intended as limiting specifications.

CORPORATE HQ: P.O. Box 811 • OCONOMOWOC, WI 53066-0811 • 262-569-7171 • FAX: 262-569-1511
TOLL FREE: 1-888-ODIN-INC • 1-888-634-6462 • EMAIL: INFO@THORTARP.COM

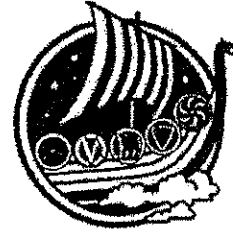
WWW.THORTARP.COM

IVB-A-2



THOR Tarp

DIV. OF **ODIN** INTERNATIONAL, INC



DuraShield 12,000 FR

Fire Retardant 4-ply
Woven Coated Polyethylene
Data Sheet

COUNT:	Nominal 16 x 16 tapes/inch	
WEIGHT:	9.25 oz per square yard (315 gsm)	
TENSILE STRENGTH: (Grab Method)	Warp - 320 lbs	ASTM D751 (Meth. A)
	Weft - 320 lbs	
TEAR STRENGTH: (Tongue Method)	Warp - 50 lbs	ASTM D751 (Meth. B)
	Weft - 50 lbs	
MULLEN BURST:	675 p.s.i.	ASTM D751
COATING THICKNESS:	2.0 mil average, both sides	
SCRIM TYPE:	Clear tapes, UV stabilized	
COLOUR:	Clear and colored coatings available	
ACCELERATED WEATHERING/U.V.:	More than 80% strength retention after 2000 hours	ASTM G53-84
(Q.U.V.[A-340 Lamps] 8 hrs U.V. @60° C/4 hrs condensation @50° C)		

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TOLL FREE: 1-888-ODIN-INC • 1-888-634-6462 • EMAIL: INFO@THORTARP.COM

WWW.THORTARP.COM



THOR Tarp
 Div. of **ODIN** International, Inc



MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Polypropylene Fabrics

PRODUCT CODE(S): DuraShield 11,000
 All ThoroShield Products

WHMIS Classification: Not Controlled

HIMS Codes: H F R P
 0 1 0 B

SECTION I – MANUFACTURER IDENTIFICATION	
Manufacturer's Name: ODIN International, Inc.	
Manufacturer's Address: 4408 Deer Park Road, Oconomowoc, WI, 53066	
Emergency Phone: 262-569-7171	Information Phone: 262-569-7171
Date Prepared: May 8, 2006	Prepared By: Steve Wallace

SECTION II – HAZARDOUS INGREDIENTS/IDENTITY INFORMATION
Non-hazardous, comprised mainly of polypropylene. Colored and printed fabrics contain small quantities of proprietary pigments that may be health hazards in concentrated form. Contained in the matrix of the fabric, they do not make the fabric hazardous. More details on specific colors may be available on request.

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS	
Appearance and Odor: Flexible sheet/bag, slight odor	
Boiling Point: Not Available	Specific Gravity: 0.90 – 0.95
Vapor Density: Not Available	Evaporation Rate: Not Available
Solubility in Water: Insoluble in cold and hot water.	pH: Not Available
Vapor Pressure: Not Available	Freezing Point: 120 to 170 °C
Coefficient of Oil/Water Distribution: Not soluble in water or oil.	

CORPORATE HQ: P.O. BOX 811 • OCONOMOWOC, WI 53066-0811 • 262-569-7171 • FAX: 262-569-1511
 TOLL FREE: 1-888-ODIN-INC • 1-888-634-6462 • EMAIL: INFO@THORTARP.COM

WWW.THORTARP.COM

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

Flashpoint: Not Available

Flammable Limits in Air by Volume: Lower: Not Available Upper: Not Available

Special Firefighting Procedures: All individuals required to enter the hazard area must wear full-face, NIOSH-approved self-contained breathing apparatus and appropriate protective clothing.

Unusual Fire and Explosion Hazards: Polypropylene products are not highly flammable, but will melt and/or burn when exposed to heat or open flame. Avoid contact with molten, dripping plastic. When heated to decomposition, product emits acrid smoke and irritating fumes.

SECTION V – REACTIVITY DATA

Stability: Stable. Decomposition temperature > 300 °C

Conditions to Avoid: Temperatures above 300 °C

Incompatibilities (Conditions to Avoid): Consult manufacturer before using as containment or barrier for chemicals other than water. Very slightly reactive with oxidizing agents, acids, and alkalis.

Hazardous Decomposition or Byproducts: Carbon monoxide, carbon dioxide, oxides of nitrogen, and hydrocarbons may be generated during thermal decomposition and combustion.

Hazardous Polymerization: Will not occur.

SECTION VI – HEALTH HAZARD DATA

Inhalation Health Risks, Symptoms of Exposure: None at ambient temperatures.

Skin/Eye contact Health Risks, Symptoms of Exposure: Prolonged and/or repetitive contact can cause abrasion and irritation. Contact with molten product will burn unprotected skin and eyes. Should a burn occur, cool burn area immediately with cool, clean, running water until no heat is emitted from burn area. Cover with light, dry dressing. Do not apply oily ointments or puncture blisters. Obtain medical assistance.

Ingestion Health Risks, Symptoms of Exposure: Products should not be eaten, nor used as food wrapping without consulting the manufacturer.

Health Hazards (Acute and Chronic): None

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

Mutagenic Effects: None known.

Developmental Toxicity: Not toxic.

Teratogenic Effects: None known.

Medical Condition Generally Aggravated by Exposure: None identified.

Emergency and First Aid Procedures: If in contact with hot or molten plastic, treat the effected are with cool water and seek medical attention.

SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled: Normal, good housekeeping practices. Use a shovel, or other appropriate instrument, to put the material into a convenient waste disposal container. Recycle to process, if possible. Spilled product may create a slipping hazard (especially if wet).

Waste Disposal Method: In accordance with local, state/provincial and federal regulations. Preferred disposal methods are (1) clean and reuse if possible; (2) contact plastic supplier; (3) incinerate with waste heat recovery, and/or (5) landfill.

Precaution to be Taken in Handling and Storage: Products may be slippery to walk on when wet. Charges of static electricity may be generated during handling and processing.

SECTION VIII – EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection: Not required under normal handling and ventilation. Should conditions exist that require respiratory protection, and organic vapor protection mask is recommended.

Ventilation: Local exhaust. If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Small amounts of fines or dust may accumulate in material handling systems. If permitted to accumulate, these fines and dust can, under certain conditions, pose an explosion hazard. Every effort should be made to prevent the concentration or accumulation of fines or dust in, or around, material handling systems.

Protective Gloves: Recommended in cases of repetitive contact, such as sewing operations.

Eye Protection: Safety glasses or goggles.

Other Protective Equipment or Clothing: None at ambient temperatures. Wear heat protective clothing if there is a potential for contact with molten material.

Work/Hygienic Practices: Wash hands after handling and before eating.

SECTION IX – REGULATORY

SARA Title III Hazard Category: No applicable information found.

To the best of our knowledge, the information contained herein is accurate. The information provided is based upon data furnished by our suppliers. However, ODIN International, Inc. assumes no liability whatsoever for the accuracy or completeness of the information contained herein. While believed to be reliable, the information of products are intended for use by skilled persons at their own risk. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that those are the only hazards that exist.

REEF INDUSTRIES, INC.

MATERIAL SAFETY DATA SHEET

REEF INDUSTRIES, INC.

HMIS CODES:	
HEALTH:	0
FLAMMABILITY:	1
REACTIVITY:	0

PAGE: 1 of 3
PREPARED: 7/21/2006
SUPERSEDES: 1/28/2003

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: GRIFFOLYN T-65, T-85, T-105
GENERAL OR GENERIC ID: Polyethylene Copolymer and Polyester
CHEMICAL FAMILY: Polyethylene Copolymer and Polyester

CONTACT ADDRESS: Reef Industries, Inc.
9209 Almeda Genoa Road
Houston, Texas 77075

EMERGENCY TELEPHONE NUMBERS: (713) 507-4200 (24 Hours)

SECTION 2 HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

This product is not hazardous as defined in 29 CFR1910.1200
Chemicals subject to reporting requirements of SARA Title III section 313 are identified in this section

INGREDIENT: CAS No: % by WEIGHT: PEL: STEL: NOTE:

SECTION 3 PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point:	NA	Specific Gravity (Water = 1):	0.92 - 0.97
Vapor Pressure (mm Hg.):	NA	Melting Point: °F	250-320 °F
Vapor Density (Air = 1):	NA	Evaporation Rate:	NA
Solubility in Water:	Insoluble	Appearance and Odor:	Odorless plastic laminate-Polyester fiber reinforced

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used):	646 Deg. F ASTM E-136	Flammable Limits:	LEL	UEL
			NA	NA

Extinguishing Media: Water spray, Foam, Dry Chemical, or CO₂

Special Fire Fighting Procedures:
Fire fighters should be equipped with self-contained breathing apparatus when fighting fires involving this material.

Unusual Fire and Explosion Hazards:
Fire may produce toxic gases and dense smoke.

SECTION 5 REACTIVITY DATA

Stability:	Stable	Incompatibility (Materials to Avoid):	Avoid Strong Oxidizing Agents
------------	--------	---------------------------------------	-------------------------------

Hazardous Decomposition or Byproducts:

CO₂, CO and small amounts of aliphatic and aromatic hydrocarbons when subjected to flames or excessive heat.

Hazardous Polymerization: Will not occur

SECTION 6 HEALTH HAZARD DATA

Primary Route(s) of Entry:	Inhalation? No	Absorption? No	Ingestion? No
----------------------------	----------------	----------------	---------------

Health Hazards (Acute and Chronic):

Inhalation: None at ambient temperatures

Absorption: None

Ingestion: No significant health hazards identified

Carcinogenicity:	NTP? None	IARC Monographs? None	OSHA Regulated? None
------------------	-----------	-----------------------	----------------------

Signs and Symptoms of Exposure:

Inhalation: NA

Absorption: NA

Ingestion: NA

Medical Conditions Generally Aggravated by Exposure:

Inhalation: None

Absorption: None

Ingestion: None

Emergency and First Aid Procedures:

Inhalation: NA

Absorption: NA

Ingestion: NA

SECTION 7 PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material Is Released or Spilled: NA	Waste Disposal Method: In accordance with local, state and federal regulations.
---	---

Precautions to Be Taken in Handling and Storage: NA

Other Precautions: NA

SECTION 8 CONTROL MEASURES

Respiratory Protection: None

Ventilation: None

Protective Gloves: NA

Eye Protection: NA

Other Protective Clothing and Equipment: NA

THE INFORMATION PROVIDED RELATES TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS. INFORMATION PROVIDED IS TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE AND RELIABLE AS OF THE DATE PREPARED. NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO ITS ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO DETERMINE FOR HIS/HERSELF THE SUITABILITY AND COMPLETENESS OF SUCH INFORMATION. REEF INDUSTRIES, INC. DOES NOT ACCEPT LIABILITY FOR ANY LOSS OR DAMAGE WHICH MAY OCCUR FROM THE USE OF THIS INFORMATION.

DEFINITIONS

SECTION I

PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: Chemical family or product description.

DOT HAZARD CLASSIFICATION: Product meets DOT criteria for hazards listed.

SECTION II

COMPONENTS

Components are listed in this section if they present a physical and/or health hazard and are present at or above 1% the mixture. If a component is identified as a carcinogen by NTP, IARC or OSHA as of the date on the MSDS, it will be listed and footnoted in this section when present at, or above 0.1% in the product. Negative conclusions concerning carcinogenicity are not reported. Additional health information may be found in Section V. Components subject to the reporting requirements of Section 313 of SARA Title III are identified in the footnotes in this section, along with typical percentages. Other components may be listed if deemed appropriate.

Exposure recommendations are for components. OSHA Permissible Exposure Limits (PELs) and American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) appear on the line with the component identification. Other recommendations appear as footnotes.

SECTION III

PHYSICAL DATA

BOILING POINT: Of product. The lowest value of the components is listed for mixtures.

VAPOR PRESSURE: Of product. The highest value of the components is listed for mixtures.

SPECIFIC VAPOR DENSITY: AIR=1. If unknown, the Specific Vapor Density will be listed as lighter or heavier than air.

SPECIFIC GRAVITY: WATER=1. If unknown, the Specific Gravity will be listed as less than or greater than water. pH if applicable.

PER CENT VOLATILES: Percentage of material with initial boiling point below 425 degrees Fahrenheit.

EVAPORATION RATE: Indicated as faster or slower than Ethyl Ether, unless otherwise indicated.

SECTION IV

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Method identified.

EXPLOSIVE LIMIT: For product if known. The lowest value of the components is listed for mixtures.

EXTINGUISHING MEDIA: Following National Fire Protection Association criteria.

HAZARDOUS DECOMPOSITION PRODUCTS: Known or expected hazardous products resulting from heating, burning or other reactions.

FIREFIGHTING PROCEDURES: Minimum equipment to protect firefighters from toxic products of vaporization, combustion or decomposition in fire situations. Other fire fighting hazards may also be indicated.

SPECIAL FIRE AND EXPLOSION HAZARDS: State hazards not covered by other sections.

NFPA CODES: Hazard ratings assigned by the National Fire Protection Association.

SECTION V

HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL (PEL): For product.

THRESHOLD LIMIT VALUE (TLV): For product.

EFFECTS OF ACUTE OVEREXPOSURE: Potential local and systemic effects due to single or shorter overexposure to the eyes, skin or through inhalation or ingestion.

EFFECTS OF CHRONIC OVEREXPOSURE: Potential local and systemic effects due to repeated or long term overexposure to the eyes and skin or through inhalation or ingestion.

SECTION VI

REACTIVITY DATA

HAZARDOUS POLYMERIZATION: Conditions to avoid to prevent hazardous polymerization resulting in a large release of energy.

STABILITY: Conditions to avoid to prevent hazardous or violent decomposition.

INCOMPATIBILITY: Materials and conditions to avoid to prevent hazardous reactions.

SECTION VII

SPILL OR LEAK PROCEDURES

Reasonable precautions to be taken and methods of containment, clean-up and disposal. Consult Federal, State and Local regulations for accepted procedures and reporting notification requirements.

SECTION VIII

PROTECTIVE EQUIPMENT TO BE USED

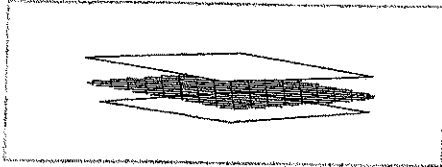
Protective equipment that may be needed when handling the product.

SECTION IX

SPECIAL PRECAUTIONS - OTHER COMMENTS

Covers any relevant points not previously mentioned.

GRIFPOLYN® TYPE-65



Griffolyn® Type-65 is a 3-ply laminate combining two layers of high-density polyethylene and a high-strength cord grid. The non-woven cord grid provides a uniform loading resistance. It is specifically engineered to provide high strength and durability in a lightweight material.

PHYSICAL PROPERTIES AND TYPICAL VALUES			
PROPERTY	ASTM TEST METHOD	U.S. VALUE	METRIC VALUE
Weight	D-751	40 LB/1000 FT ²	19.5 KG/100 M ²
3" Tensile Strength	D-882	100 LBF	445 N
Puncture Strength	D-4833	24 LBF	106 N
PPT Resistance	D-2582	30 LBF	133 N
Dart Impact Strength	D-1709	1.1 LBS	500 g
Cold Impact Strength	D-1790	-40°F	-40°C
Permeance	E-96	0.038 Grain/Hr·Ft ² ·In.Hg	2.18 NG/(PA·S·M ²)

FEATURES

- Multiple layers and cord reinforcement resist punctures and tears.
- UV stabilization protects the material from degradation during extended exposure to sunlight.
- Cold-crack resistance eliminates failures in extremely cold temperatures.
- Chemically resistant to withstand exposure without significant deterioration.
- Low permeability greatly inhibits moisture transmission.
- Flexibility and light weight allow for easy handling and quick installation.
- Custom fabrication is available to meet your exact specifications.
- High durability allows for significant savings through reuse and fewer replacements.
- Class C, ASTM E-1745-97 Standard Specification for Water Vapor Retarders Used in Contact With Soil or Granular Fill Under Concrete Slabs.

REEF INDUSTRIES, INC.
 The Manufacturing Leader of Specialized Industrial Plastic Films Since 1957.

GRIFPOLYN® TYPE-65

PRODUCT INFORMATION • SPECIFICATION GUIDE

The information provided herein is based upon data believed to be reliable. All testing is performed in accordance with ASTM standards and procedures. All values are typical and nominal and do not represent either minimum or maximum performance of the product. Although the information is accurate to the best of our knowledge and belief, no representation of warranty or guarantee is made as to the suitability or completeness of such information. Likewise, no representation of warranty or guarantee, expressed or implied, or merchantability, fitness or otherwise, is made as to product application for a particular use.

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TOLL FREE 1.800.231.6074

9209 Alameda Genoa Rd. • Houston, Texas 77075
 P: 713.507.4251 • F: 713.507.4295
 Email: ri@reefindustries.com

SUGGESTED APPLICATIONS

- Architectural vapor retarder for under slab, in walls & ceilings and in roofing systems.
- Pallet, cable reel and drum covers for outside storage.
- Floor covers, dust partitions and cleanroom enclosures.
- Temporary walls, plant dividers, building enclosures and containment tents.
- Shipping container covers and liners.
- Soil covers to control leachate for stockpiles and landfills.
- Erosion control and slope protection covers.

ORDERING INFORMATION

AVAILABLE COLORS:

Black

SIZES:

Standard rolls from 4' x 100' to 40' x 100' in increments of 4' widths are available for immediate shipment. Standard length and width tolerances are $\pm 1\%$ (minimum 2")

Custom sizes up to 120' x 200' and custom fabrication are available to meet your exact specifications.

USABLE TEMPERATURE RANGE:

Minimum: -25°F -31.6°C

Maximum: 170°F 77°C

OUTDOOR EXPOSURE

Under normal continuous exposure the average life expectancy ranges from 18 to 30 months, depending on color.

The information provided herein is based upon data believed to be reliable. All testing is performed in accordance with ASTM standards and procedures. All values are typical and nominal and do not represent either minimum or maximum performance of the product. Although the information is accurate to the best of our knowledge and belief, no representation of warranty or guarantee is made as to the suitability or completeness of such information. Likewise, no representation of warranty or guarantee, expressed or implied, or merchantability, fitness or otherwise, is made as to product application for a particular use.

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Email: rl@reefindustries.com

REEF
INDUSTRIES

TOTAL PETROCHEMICALS



Section 1. Chemical Product and Company Identification

Trade name	TOTAL Polypropylene	Code	PP_HOMOPOLYMER
Supplier	TOTAL PETROCHEMICALS USA, INC. P O Box 674411 Houston, TX 77267-4411	MSDS#	P89
Synonym	Polypropylene, Homopolymer This MSDS covers all prime homopolymer polypropylene grades including but not limited to: 3###ABC M3###ABC where # can be any number and ABC may be any combination of letters (the letters may or may not be present), EXCEPT 3287WZ, 3354, 3375HA, 3481Z, 3727W, and 3727WZ. This MSDS also covers experimental grades which are homopolymers including LX1 xx-xx, LX4 xx- xx, and LX5 xx-xx, & EOD xx-xx, and specially compounded samples labeled TOTAL PETROCHEMICALS Homopolymer Polypropylene Nxxxxx and Nxxxxx-x, where x may be any number.	Validation Date	10/7/2009
		Print Date	10/7/2009
MSDS Name	Polypropylene	Responsible for Preparation	Paul Bradley
Chemical Family	Polymer	In Case of Emergency Chemtrec: (800) 424-9300 TOTAL PETROCHEMICALS USA, INC: (800) 322-3462	Technical Information TOTAL PETROCHEMICALS USA, INC. La Porte Research and Technology PO Box 1200 Deer Park, Tx. 77536 281-884-7500
CAS Registry Number	9003-07-0		
Threshold Limit Value	Not available.		
Manufacturer	TOTAL PETROCHEMICALS USA, INC. P.O. Box 888 Deer Park, TX 77536		

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
Polypropylene	9003-07-0	~ 100	Not available.

Section 3. Hazards Identification

Physical State and Appearance	Solid. (Solid pellets.)
Emergency Overview	Irritating vapors to respiratory system and eyes may form when polymer is processed at high temperatures. Molten or heated material in skin contact can cause severe burns.
Routes of Entry	FOR HOT MATERIAL: Skin contact, Eye contact, Inhalation.
Potential Acute Health Effects	<i>Eyes</i> Dust may cause mechanical irritation to eye. Heated Polymer: Eye contact can cause serious thermal burns. Vapors formed when polymer is heated may be irritating to the eye.

Continued on Next Page

<i>Skin</i>	No known acute effects of this product resulting from skin contact at room temperature. Heated Polymer: skin contact can cause serious thermal burns.
<i>Inhalation</i>	Negligible at room temperature. Nuisance dusts can be irritating to the upper respiratory tract. Irritating vapors may form when the polymer is processed at high temperatures.
<i>Ingestion</i>	No effects are expected for ingestion of small amounts. May be a choking hazard.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Polypropylene is not a known carcinogen. Not listed as a carcinogen by OSHA, NTP or IARC.
Medical Conditions Aggravated by Overexposure	There is no known effect from chronic exposure to this product. Repeated or prolonged exposure is not known to aggravate any medical condition.
Overexposure /Signs/Symptoms	No adverse health effects anticipated from the solid pellet.
See Toxicological Information (Section 11)	

Section 4. First Aid Measures

Eye Contact	Rinse with water for a few minutes. Seek medical attention if necessary.
Skin Contact	Polymer: NO known EFFECT on skin contact, rinse with water for few minutes. Heated Polymer: For serious burns from heated polymer, get medical attention. In case of skin contact, immediately immerse in or flush with clean, cold water.
Inhalation	Allow the victim to rest in a well-ventilated area.
Ingestion	No First Aid procedures are needed.

Section 5. Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature.
Auto-ignition Temperature	Not available.
Flash Points	>200°C (>392°F)
Flammable Limits	Not available.
Products of Combustion	Carbon oxides (CO, CO ₂) and soot.
Fire Hazards in Presence of Various Substances	No specific information is available in our database regarding the flammability of this product in presence of various materials.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not expected. Risks of explosion of the product in presence of static discharge: Possible. Risk of explosion from dust accumulation of this product is possible. See MSDS section 7 Handling for more information.
Fire Fighting Media and Instructions	SMALL FIRE: Dry chemical extinguisher (ABC or AB). Use water spray or fog. LARGE FIRE: Use water spray or fog. Do not use water jet. May re-ignite itself after fire is extinguished.
Protective Clothing (Fire)	Wear MSHA/NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear.
Special Remarks on Fire Hazards	Fire may produce irritating gases and dense smoke. Flowing material may produce static discharge, igniting dust accumulations.
Special Remarks on Explosion Hazards	Processing or material handling equipment may generate dust of sufficiently small particle size, that when suspended in air may be explosive.

Continued on Next Page

Section 6. Accidental Release Measures

Small Spill and Leak	Pellets on the floor could present a serious slipping problem. Good housekeeping must be maintained at all times to avoid this hazard. Sweep, shovel, or vacuum material into clean containers.
Large Spill and Leak	Use a shovel to put the material into a convenient waste disposal container. Do not allow any potentially contaminated water with pellets to enter any waterway, sewer or drain.

Section 7. Handling and Storage

Handling	<p>Handling of plastic may form nuisance dust. Protect personnel.</p> <p>Pneumatic material handling and processing equipment may generate dust of sufficiently small particle size that, when suspended in air, may be explosive. Dust accumulations should be controlled through a comprehensive dust control program that includes, but is not limited to, source capture, inspection and repair of leaking equipment, routine housekeeping and employee training in hazards. See NFPA 654.</p> <p>When handled in bulk quantities, this product and its associated packaging may present a crushing hazard due to the large masses involved, possibly resulting in severe injury or death.</p>
Storage	Keep container dry. Keep container in a cool place. Ground all equipment containing material. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
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Personal Protection

Eyes Safety glasses.

Body Coveralls.

Respiratory Ventilation is normally required when handling this product at high temperatures. Wear appropriate respirator when ventilation is inadequate.

Hands Thermally insulated gloves required when handling hot material.

Feet Shoes.

Protective Clothing (Pictograms)



Personal Protection in Case of a Large Spill	Safety glasses. Gloves.
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Product Name	Exposure Limits
Polypropylene	Not available.

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Solid. (Solid pellets.)	Odor	Odorless.
Molecular Weight	Not available.	Taste	Not available.
Molecular Formula	(C3H6)x	Color	Translucent white pellets.
Melting/Freezing Point	120 to 170°C (248 to 338°F)		
Specific Gravity	0.91 to 0.97 (Water = 1)		
Volatility	Negligible.		

Continued on Next Page

Solubility in Water	Insoluble in water.
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Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable. Avoid temperatures above 300 degree C (570 F).
Incompatibility with Various Substances	Reactive or incompatible with strong oxidizing agents.
Hazardous Decomposition Products	Hazardous decomposition products are carbon monoxide, carbon dioxide, dense smoke, and various hydrocarbons.
Hazardous Polymerization	No.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Not listed as a carcinogen by OSHA, NTP or IARC.
Other Toxic Effects on Humans	Not considered to be dangerous to humans.



Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Biodegradable/OECD	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information	Transfer to an approved disposal area in accordance with federal, state, and local regulations. Consult your local or regional authorities.
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Section 14. Transport Information (for bulk shipments, non-bulk shipments may differ)

DOT Classification for Bulk Shipments (non bulk shipments may differ)	Not a DOT controlled material (United States).	
DOT Proper Shipping Name	Not applicable.	
UN Number	Not applicable.	
Packing Group	Not applicable.	
USCG Proper Shipping Name	Polypropylene	
Marine Pollutant	Not listed in Appendix B to 49CFR172.101	 No label required
Hazardous Substances Reportable Quantity	Not listed in Appendix A to 49CFR172.101	
Special Provisions for Transport	Not applicable.	
TDG Classification	Not controlled under TDG (Canada).	

Continued on Next Page

ADR/RID Classification Not controlled under ADR (Europe).

IMO/IMDG Classification Not controlled under IMDG.

ICAO/IATA Classification Not controlled under IATA.

Section 15. Regulatory Information

HCS Classification This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. Federal Regulations TSCA inventory: All components are listed or exempted.

SARA 313

This product contains no chemicals in excess of the applicable de minimis concentration that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Table 372.65).

SARA 304

No chemicals in this product require reporting under the requirement of 40 CFR 355, Emergency Planning And Notification (SARA extremely hazardous substances listed in Appendix A to Part 355 or CERCLA hazardous substances listed in Table 302.4 of 40 CFR Part 302).

SARA 301/302/303

No chemicals in this product are listed as extremely hazardous substances in 40 CFR 355, Emergency Planning And Notification (Appendix A to Part 355).

SARA 311/312

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and as such does not require reporting under the requirements of 40 CFR 370, Hazardous Chemical Reporting: Community Right-To-Know.

Specific state and local regulations should be consulted to determine if there are any additional requirements. Because many states and localities have added requirements or incorporated the Federal contents in their own forms, Tier I & II forms should be obtained from the State Emergency Response Commission (SERC).

Clean water act (CWA) 307: No products were found.

Clean water act (CWA) 311: No products were found.

Clean air act (CAA) 112 accidental release prevention: No products were found.

Clean air act (CAA) 112 regulated flammable substances: No products were found.

Clean air act (CAA) 112 regulated toxic substances: No products were found.

International Regulations

WHMIS (Canada) Not controlled under WHMIS (Canada).

CEPA Toxic substances: This material is not listed.

Canadian ARET: This material is not listed.

Canadian NPRI: This material is not listed.

Alberta Designated Substances: This material is not listed.

Ontario Designated Substances: This material is not listed.

Quebec Designated Substances: This material is not listed.

DSCL (EEC) This product is not classified according to EU legislation.

CEPA DSL/NDL All components are listed or exempted.

International Lists **Australia inventory (AICS):** This material is listed or exempted.

China inventory (IECSC): This material is listed or exempted.

Japan inventory (ENCS): This material is listed or exempted.

Japan inventory (ISHL): Not determined.

Korea inventory (KECI): This material is listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): This material is listed or exempted.

Philippines inventory (PICCS): This material is listed or exempted.

State Regulations

Continued on Next Page

Connecticut Carcinogen Reporting: This material is not listed.
Connecticut Hazardous Material Survey: This material is not listed.
Florida substances: This material is not listed.
Illinois Chemical Safety Act: This material is not listed.
Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.
Louisiana Reporting: This material is not listed.
Louisiana Spill: This material is not listed.
Massachusetts Spill: This material is not listed.
Massachusetts Substances: This material is not listed.
Michigan Critical Material: This material is not listed.
Minnesota Hazardous Substances: This material is not listed.
New Jersey Hazardous Substances: This material is not listed.
New Jersey Spill: This material is not listed.
New Jersey Toxic Catastrophe Prevention Act: This material is not listed.
New York Acutely Hazardous Substances: This material is not listed.
New York Toxic Chemical Release Reporting: This material is not listed.
Pennsylvania RTK Hazardous Substances: This material is not listed.
Rhode Island Hazardous Substances: This material is not listed.

Section 16. Other Information

Label requirements Irritating vapors to respiratory system and eyes may form when polymer is processed at high temperatures.
 Molten or heated material in skin contact can cause severe burns.

Hazardous Material Information System (U.S.A.)

Health	0
Fire Hazard	1
Reactivity	0
Personal Protection	

National Fire Protection Association (U.S.A.)



References Chemtox Database
 Hazardous Substance Database

Other Special Considerations Acceptable business/technical terms necessary for medical device applications must be developed by contacting your TOTAL PETROCHEMICALS USA, INC. sales representative. Without such documented business terms, TOTAL PETROCHEMICALS USA, INC. makes no representations and disclaims all warranties, express or implied, concerning biocompatibility and/or suitability of this product for medical device applications.

Validated by Paul Bradley on 10/7/2009.

Verified by Karen Scheel.

Printed 10/7/2009.

Chemtrec:
 (800) 424-9300
TOTAL PETROCHEMICALS USA, INC.:
 (800) 322-3462

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

PHILLIPS SUMIKA POLYPROPYLENE COMPANY



Phillips Sumika
Polypropylene Company

Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Marlex® Polypropylene (All Grades)

Product Use: Extrusion and Injection Molding

Synonyms: Plastic

Product CAS No.: Mixture

Company Identification:

Phillips Sumika Polypropylene Company
10001 Six Pines Drive
The Woodlands, TX 77380

Product Information:

MSDS Requests: 1 - (800) 852-5530
Technical Information: 1 - (800) 852-5531
Responsible Party: Product Safety Group
Email:msds@cpchem.com

Chevron Phillips Chemicals International N.V.
Brusselsesteenweg 355
B-3090 Overijse
Belgium

24-Hour Emergency Telephone Numbers:

HEALTH:Chevron Phillips Emergency Information Center 866.442.9628 (North America) and 1.832.813.4984 (International)

TRANSPORTATION: North America: CHEMTREC 800.424.9300 or 703.527.3887
ASIA: +1.703.527.3887
EUROPE: BIG .32.14.584545 (phone) or .32.14.583516 (telefax)
SOUTH AMERICA SOS-Cotec Inside Brazil: 0800.111.767
Outside Brazil: 55.19.3467.1600

MEDICAL APPLICATION CAUTION: Do not use this Phillips Sumika Polypropylene Company material in medical applications involving permanent implantation in the human body or permanent contact with internal body fluids or tissues.

Do not use this Phillips Sumika Polypropylene Company material in medical applications involving brief or temporary implantation in the human body or contact with internal body fluids or tissues unless the material has been provided directly from Phillips Sumika Polypropylene Company under an agreement which expressly acknowledges the contemplated use.

Phillips Sumika Polypropylene Company makes no representation, promise, express warranty or implied warranty concerning the suitability of this material for use in implantation in the human body or in contact with internal body fluids or tissues.

SECTION 2 HAZARDS IDENTIFICATION

Revision Number: 5.03
Revision Date: 12/4/2008

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Marlex® Polypropylene (All Grades)
MSDS : 240590

EMERGENCY OVERVIEW

Opaque, translucent waxy pellets or fluff, mild odor.

NFPA RATINGS: Health: 1 Flammability: 1 Reactivity: 0

EU Classification:

Safety Phrases:

S22: Do not breathe dust.

IMMEDIATE HEALTH EFFECTS:

Eye: Contact with the eyes may cause irritation due to the abrasive action of the dust. Not expected to cause prolonged or significant eye irritation. Material is dusty and may scratch the surface of the eye.

Skin: Contact with the skin is not expected to cause prolonged or significant irritation.

Ingestion: Not expected to be harmful if swallowed.

Inhalation: Not expected to be harmful if inhaled.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	AMOUNT	EINECS / ELINCS	SYM	R-Phrases
Propylene Ethylene Copolymer	9010-79-1	<= 99 % weight	NA	NA	NA
Polypropylene	9003-07-0	<= 99 % weight	NA	NA	NA
Polyethylene	9002-88-4	< 49 % weight	EXEMPT	NA	NA
Polyethylene Hexene Copolymer	25213-02-9	< 49 % weight	EXEMPT	NA	NA
Ethylene-octene-1 Copolymer	26221-73-8	< 49 % weight	NA	NA	NA
Polyethylene Butene Copolymer	25087-34-7	< 49 % weight	NA	NA	NA
Related Materials		< 4 % weight	NA	NA	NA

Occupational Exposure Limits:

Component	Limit	TWA	STEL	Ceiling / Peak	Notation
Ethylene-octene-1 Copolymer	ACGIH	Not Established	NA	NA	NA
Polyethylene	ACGIH	3 mg/m ³	NA	NA	NA
Polyethylene	German MAK	6 mg/m ³	NA	NA	NA
Polyethylene Butene Copolymer	ACGIH	Not Established	NA	NA	NA
Polyethylene Hexene Copolymer	ACGIH	Not Established	NA	NA	NA
Polypropylene	ACGIH	3 mg/m ³	NA	NA	NA
Polypropylene	German MAK	6 mg/m ³	NA	NA	NA
Propylene Ethylene Copolymer	ACGIH	Not Established	NA	NA	NA
Related Materials	ACGIH	Not Established	NA	NA	NA

Control as Particulate Not Otherwise Classified (PNOC). The ACGIH Guideline* for respirable dust is 3.0 mg/m³ and 10.0 mg/m³ for total dust. The OSHA PEL for respirable dust is 5.0 mg/m³ and 15.0 mg/m³ for total dust.

Revision Number: 5.03
Revision Date: 12/4/2008

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Marlex® Polypropylene (All Grades)
MSDS : 240590

* This value is for inhalable (total) particulate matter containing no asbestos and < 1.0% crystalline silica.

SECTION 4 FIRST AID MEASURES

Eye: Flush eyes with running water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get immediate medical attention.

Skin: To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse. Get medical attention if any symptoms develop. If the hot material gets on skin, quickly cool in water. See a doctor for extensive burns. Remove contaminated clothing and shoes. Wash skin with soap and water. Wash or clean contaminated clothing and shoes before reuse.

Ingestion: If swallowed, do not induce vomiting. Give the person a glass of water or milk to drink and get immediate medical attention. Never give anything by mouth to an unconscious person.

Inhalation: Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

SECTION 5 FIRE FIGHTING MEASURES

Explosive dust clouds may be produced.

FIRE CLASSIFICATION:

OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

NFPA RATINGS: Health: 1 Flammability: 1 Reactivity: 0

FLAMMABLE PROPERTIES:

Flashpoint: 343°C (649.4°F)

Autoignition: NDA

Flammability (Explosive) Limits (% by volume in air): Lower: NA Upper: NA

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: If possible, water should be applied as a spray from a fogging nozzle since this is a surface burning material. The application of high velocity water will spread the burning surface layer. This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material. Wear appropriate personal protective equipment when cleaning up spills. Refer to Section 8.

Spill Management: Refer to OSHA Standard 29 CFR 1910.1026(j) Chromium (VI) Cleaning Methods for proper methods of cleaning. Reduce airborne dust and prevent scattering by moistening with water. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: U.S.A. regulations may require reporting spills of this material that could reach any surface waters. Report spills to local authorities and/or the National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

Revision Number: 5.03
Revision Date: 12/4/2008

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Marlex® Polypropylene (All Grades)
MSDS : 240590

READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL . REFER TO PRODUCT LABEL OR MANUFACTURERS TECHNICAL BULLETINS FOR THE PROPER USE AND HANDLING OF THIS MATERIAL .

Precautionary Measures: Use caution to avoid creation of dusts and to prevent inhalation of product dust (fines). Avoid contact with product dust. Airborne dust concentrations above 20 mg/L may create a dust explosion hazard. Keep out of water sources and sewers. Spilled pellets may create a slipping hazard. Avoid breathing vapors or fumes which may be released during thermal processing. Do not breathe dust at levels above the recommended exposure limits. Avoid breathing material. Keep container closed. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Discard contaminated clothing and shoes or thoroughly clean before reuse. Do not breathe dust. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Unusual Handling Hazards: At temperatures (>350°F, >177°C), polyethylenes can release vapors and gases, which are irritating to the mucous membranes of the eyes, mouth, throat, and lungs. These substances may include acetaldehyde, acetone, acetic acid, formic acid, formaldehyde and acrolein. Based on animal data and limited epidemiological evidence, NTP, IARC (2A), and OSHA have listed formaldehyde as a probable human carcinogen. Following all recommendations within this MSDS should minimize exposure to thermal processing emissions.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations, which have the potential of generating an accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids, National Fire Protection Association (NFPA 77), Recommended Practice on Static Electricity' (liquids, powders and dusts), and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents' (liquids).

General Storage Information: Treat as a solid that can burn. Store away from oxidizing materials, in a cool, dry place with adequate ventilation. Bond and ground transfer equipment. DO NOT USE OR STORE near heat, sparks or open flames. USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

Container Warnings: Containers, even those that have been emptied, can contain residues of dusts or solid particulates which may create both health and fire/explosion hazards.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:

Use in a well-ventilated area. If handling results in dust generation, special ventilation may be needed to ensure that dust exposure does not exceed the OSHA PEL for nuisance dust. If heated material generates vapor or fumes, use process enclosures, local exhaust ventilation, or other engineering controls to control exposure.

PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face Protection: Wear eye protection such as safety glasses, chemical goggles, or faceshields if engineering controls or work practices are not adequate to prevent eye contact.

Skin Protection: Wear impervious protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Users should determine acceptable performance characteristics of protective clothing. Consider physical requirements and other substances present when selecting protective clothing. Suggested materials for protective gloves include: Nitrile

Respiratory Protection: If exposure is anticipated to be greater than applicable exposure limits, wear a NIOSH approved respirator that provides adequate protection from measured concentrations of this material. Use the following elements for air-purifying respirators: Organic Vapor and Formaldehyde.

Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component	Limit	TWA	STEL	Ceiling / Peak	Notation
Ethylene-octene-1 Copolymer	ACGIH	Not Established	NA	NA	NA
Polyethylene	ACGIH	3 mg/m3	NA	NA	NA
Polyethylene	German MAK	6 mg/m3	NA	NA	NA
Polyethylene Butene Copolymer	ACGIH	Not Established	NA	NA	NA
Polyethylene Hexene Copolymer	ACGIH	Not Established	NA	NA	NA
Polypropylene	ACGIH	3 mg/m3	NA	NA	NA
Polypropylene	German MAK	6 mg/m3	NA	NA	NA
Propylene Ethylene Copolymer	ACGIH	Not Established	NA	NA	NA
Related Materials	ACGIH	Not Established	NA	NA	NA

Control as Particulate Not Otherwise Classified (PNOC). The ACGIH Guideline* for respirable dust is 3.0 mg/m3 and 10.0 mg/m3 for total dust. The OSHA PEL for respirable dust is 5.0 mg/m3 and 15.0 mg/m3 for total dust.

* This value is for inhalable (total) particulate matter containing no asbestos and < 1.0% crystalline silica.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Opaque, translucent waxy pellets or fluff, mild odor.
Autoignition: NDA
Boiling Point: NA
Evaporation Rate: NA
Flammability (Explosive) Limits (% by volume in air): Lower: NA Upper: NA
Flashpoint: 343°C (649.4°F)
Molecular Formula: Mixture
Molecular Weight: NDA
Melting Point: NDA
Octanol / Water Partition Coefficient: log-Kow: NDA
pH: NA
Pour Point: NDA
Solubility (in water): Negligible
Specific Gravity: 0.88 g/cm3 - 0.92 g/cm3
Vapor Pressure: NA
Vapor Density (AIR=1): NA
Viscosity: NA
Percent Volatile: NDA

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Conditions to Avoid: Not Applicable
Incompatibility With Other Materials: May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous Decomposition Products: Low molecular weight hydrocarbons, alcohols, aldehydes, acids and ketones can be formed during thermal processing.
Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS:

Acute Oral Toxicity: LD50 / not known

Acute Dermal Toxicity: LD50 / not known

Acute Inhalation Toxicity: LC50 / not known / 4 hour(s)

Eye Irritation: This material is not expected to be irritating to the eyes.

Skin Irritation: This material is not expected to be irritating to the skin.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains POLYMERIZED OLEFINS.

During thermal processing (>350°F, >177°C) polyolefins can release vapors and gases (aldehydes, ketones and organic acids) which are irritating to the mucous membranes of the eyes, mouth, throat, and lungs. Generally these irritant effects are all transitory. However, prolonged exposure to irritating off-gases can lead to pulmonary edema. Formaldehyde (an aldehyde) has been classified as a probable human carcinogen by NTP, IARC (2A), and OSHA based on animal data and limited epidemiological evidence. Long-term exposure to high dust concentrations may cause non-debilitating lung changes.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY:

Fish or birds may eat pellets which may obstruct their digestive tracts.

ENVIRONMENTAL FATE:

This material is not expected to be readily biodegradable.

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

SECTION 14 TRANSPORT INFORMATION

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition). Consult the appropriate domestic or international mode- specific and quantity- specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the MSDS and the bill of lading.

Shipping Descriptions per regulatory authority.

US DOT

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

ICAO / IATA

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

IMO / IMDG

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

RID / ADR

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

SECTION 15 REGULATORY INFORMATION

SARA 311/312 CATEGORIES:

- | | |
|---------------------------------------|----|
| 1. Immediate (Acute) Health Effects: | NO |
| 2. Delayed (Chronic) Health Effects: | NO |
| 3. Fire Hazard: | NO |
| 4. Sudden Release of Pressure Hazard: | NO |
| 5. Reactivity Hazard: | NO |

REGULATORY LISTS SEARCHED:

01 = CA Prop 65	17 = FDA 178	33 = -
02 = LA RTK	18 = FDA 179	34 = -
03 = MA RTK	19 = FDA 180	35 = -
04 = MN Hazardous Substance	20 = FDA 181	36 = -
05 = NJ RTK	21 = FDA 182	37 = SARA Section 302
06 = PA RTK	22 = FDA 184	38 = SARA Section 313
07 = -	23 = FDA 186	39 = TSCA 12 (b)
08 = -	24 = FDA 189	40 = TSCA Section 4
09 = CWA Section 311	25 = IARC Group 1	41 = TSCA Section 5(a)
10 = DOT Marine Pollutant	26 = IARC Group 2A	42 = TSCA Section 8(a) CAIR
11 = FDA 172	27 = IARC Group 2B	43 = TSCA Section 8(a) PAIR
12 = FDA 173	28 = IARC Group 3	44 = TSCA Section 8(d)
13 = FDA 174	29 = IARC Group 4	45 = WHIMS - IDL
14 = FDA 175	30 = NTP Carcinogen	46 = Germany D TAL
15 = FDA 176	31 = OSHA Carcinogen	47 = Germany WKG
16 = FDA 177	32 = OSHA Highly Hazardous	48 = DEA List 1
		49 = DEA List 2

The following components of this material are found on the regulatory lists indicated.

Polyethylene

4

WHMIS CLASSIFICATION:

This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

CHEMICAL INVENTORY LISTINGS:

AUSTRALIA	YES (AUS)
CANADA	YES (DSL)
CHINA	YES (IECSC)
EUROPEAN UNION	YES (EINECS)
JAPAN	YES (ENCS)
KOREA	YES (ECL)
PHILIPPINES	YES (PICCS)
UNITED STATES	YES (TSCA)

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Marlex® Polypropylene (All Grades)
MSDS : 240590

EU LABELING:

Symbols:

NA - Not Applicable

Risk and Safety Phrases:

S22: Do not breathe dust.

SECTION 16 OTHER INFORMATION

NFPA RATINGS: Health: 1 Flammability: 1 Reactivity: 0 Special: NA

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *-Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA).

REVISION STATEMENT: The following sections have been updated: 3

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV	- Threshold Limit Value	TWA	- Time Weighted Average
STEL	- Short-term Exposure Limit	PEL	- Permissible Exposure Limit
ACGIH	- American Conference of Government Industrial Hygienists	OSHA	- Occupational Safety & Health Administration
NIOSH	- National Institute for Occupational Safety & Health	NFPA	- National Fire Protection Agency
WHMIS	- Workplace Hazardous Materials Information System	IARC	- Intl. Agency for Research on Cancer
EINECS	- European Inventory of existing Commercial Chemical Substances	RCRA	- Resource Conservation Recovery Act
SARA	- Superfund Amendments and Reauthorization Act.	TSCA	- Toxic Substance Control Act
EC50	- Effective Concentration	LC50	- Lethal Concentration
LD50	- Lethal Dose	CAS	- Chemical Abstract Service
NDA	- No Data Available	NA	- Not Applicable
<=	- Less Than or Equal To	>=	- Greater Than or Equal To
CNS	- Central Nervous System	MAK	- Germany Maximum Concentration Values

This data sheet is prepared according to the latest adaptation of the EEC Guideline 67/548.
This data sheet is prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).
This data sheet is prepared according to the ANSI MSDS Standard (Z400.1).
This data sheet was prepared by EHS Product Stewardship Group, Chevron Phillips Chemical Company LP, 10001 Six Pines Drive, The Woodlands, TX 77380.
This data sheet is prepared according to the Globally Harmonized System (GHS).

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it

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Marlex® Polypropylene (All Grades)
MSDS : 240590

shall make his own determination of the suitability of the material for his particular purpose.

KYM INDUSTRIES, INC.

KYM INDUSTRIES, INC

GEOTEX 2400 BT FR

FABRIC SPECIFICATIONS

Material : Additive :	95% polypropylene, 3.5% net carbon green, **1.5% fire retardant
Yarn:	green polypropylene slit film 1500 denier warp, 2000 denier weft
Weave:	15 yarns in warp X 15 yarns in weft per sq. inch
Weight:	9.5 oz/ sq. yd.
Tensile Grab Strength:	warp 260 pounds, weft 300 pounds According to ASTM D751
Tear Strength:	warp 170 pounds, weft 185 pounds According to ASTM D751
Mullen Burst Strength:	440 pounds According to ASTM D751
UV Resistance:	More than 80% resistance after 2000 hours of Sunlight exposure
** Ciba CGL 116	

207 SMITH ROAD SLOCOMB, ALABAMA 888-577-5218 FAX 334-886-.7108

**ATASCOCITA RECYCLING AND DISPOSAL FACILITY
HARRIS COUNTY, TEXAS
TCEQ PERMIT APPLICATION NO. MSW 1307D**

PERMIT AMENDMENT APPLICATION

PART IV – SITE OPERATING PLAN

APPENDIX IVC

SPECIAL WASTE ACCEPTANCE PLAN

Prepared for

Waste Management of Texas, Inc.

September 2010



Prepared by

BIGGS & MATHEWS ENVIRONMENTAL

1700 Robert Road, Suite 100 ♦ Mansfield, Texas 76063 ♦ 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION No. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION No. 50222

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APPENDIX IVC-A

Generator's Waste Profile Sheet

APPENDIX IVC-B

Field Checklist for Special Waste Stream Compliance



1 PURPOSE

All TCEQ special waste will be reviewed under the Waste Management of Texas, Inc. (WMTX) Special Waste Acceptance Plan. This Special Waste Acceptance Plan was developed in accordance with 30 TAC §330.127(5)(A) and §330.171. This preventive program specifically provides for waste pre-acceptance procedures to assure that a particular waste is nonhazardous and to determine the acceptability of a waste pursuant to facility permit conditions, applicable regulations, and operating capabilities.

Special waste is any solid waste or combination of solid wastes that because of its quantity, concentration, physical, or chemical characteristics or biological properties require special handling and disposal to protect human health or the environment. Special wastes as defined in 30 TAC §330.3, 30 TAC §330.171, and 30 TAC §330.173 include the following:

- (a) Hazardous waste from conditionally exempt small-quantity generators that may be exempt from full controls under Chapter 335, Subchapter N (relating to Household Materials Which Could Be Classified As Hazardous Waste)
- (b) Class I industrial nonhazardous waste not routinely collected with municipal solid waste
- (c) Special waste from healthcare-related facilities (refers to certain items of medical waste)
- (d) Municipal wastewater treatment plant sludges, other types of domestic sewage treatment plant sludges, and water supply treatment plant sludges
- (e) Septic tank pumpings
- (f) Grease and grit trap wastes
- (g) Wastes from commercial or industrial wastewater treatment plants; air pollution control facilities; and tanks, drums, or containers used for shipping or storing any material that has been listed as a hazardous constituent in 40 CFR, Part 261, Appendix VIII but has not been listed as a commercial chemical product in 40 CFR, Rule 261.33 (e) or (f)
- (h) Slaughterhouse wastes
- (i) Dead animals

- (j) Drugs, contaminated foods, or contaminated beverages, other than those contained in normal household waste
- (k) Pesticide (insecticide, herbicide, fungicide, or rodenticide) containers
- (l) Discarded materials containing asbestos
- (m) Incinerator ash
- (n) Soil contaminated by petroleum products, crude oils, or chemicals
- (o) Used oil
- (p) Light ballasts and/or small capacitors containing polychlorinated biphenyl (PCB) compounds
- (q) Waste from oil, gas, and geothermal activities subject to regulation by the Railroad Commission of Texas when those wastes are to be processed, treated, or disposed of at a solid waste management facility
- (r) Waste generated outside the boundaries of Texas that contains:
 - (i) Any industrial waste
 - (ii) Any waste associated with oil, gas, and geothermal exploration, production, or development activities
 - (iii) Any item listed as a special waste in this paragraph
- (s) Any waste stream other than household or commercial garbage, refuse, or rubbish
- (t) Lead acid storage batteries
- (u) Used oil filters from internal combustion engines
- (v) Regulated asbestos-containing materials (RACM) as defined in 40 CFR §61
- (w) Non-RACM
- (x) Hazardous waste from conditionally exempt generators not exceeding 200 pounds (100 kilograms) per month per generator

Special waste as defined in 30 TAC §330.3 and 30 TAC §330.171 will be accepted for disposal in accordance with the requirements and/or authorizations of the TCEQ. Special waste disposal requirements are contained in 30 TAC §330.171.

The following wastes are prohibited and will not be accepted at this 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.
- (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 will not be intentionally or knowingly be accepted for disposal. 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.
- (3) Used oil filters from internal combustion engines will not be intentionally or knowingly accepted for disposal at this facility except as provided in 30 TAC §330.171 (relating to Disposal of Special Wastes).
- (4) Whole used or scrap tires will not be intentionally or knowingly accepted for disposal unless processed prior to disposal in a manner acceptable to the executive director. Scrap tires identified during landfill operations and generated through maintenance will be accumulated on site by placing them in containers or trailers prior to shipment. The total quantity of tires will not exceed 500 scrap tires (or weight equivalent tire pieces) on the ground, or 2,000 scrap tires in containers. Tire containers will be kept on landfill property, but the location of the containers will vary to allow operational flexibility, ease of access, and safe landfill operations. Also, from time to time, chipped tires will be brought to the site and stored temporarily for use in construction projects. Tires and tire pieces stored outside of buildings at the site will be monitored for vectors at least once every two weeks. Manifests will be used for shipment of scrap tires offsite.
- (5) Refrigerators, freezers, air conditioners, and any other items containing chlorinated fluorocarbons (CFC) will not be knowingly accepted for disposal 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 will 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) Liquids Restrictions. The following wastes are prohibited from disposal:
 - (a) Bulk or non-containerized liquid waste will not be accepted for disposal unless:
 - (i) The waste is household waste other than septic waste.
 - (ii) The waste is leachate or gas condensate derived from the landfill and the landfill is designed and constructed with a composite liner and a leachate collection system. Information pertaining to the procedures for disposal and/or recycling of leachate or gas condensate shall be provided in the Site Development and/or Site Operating Plan.
 - (iii) The waste is processed at the waste solidification facility until no free liquids are present.
 - (b) Containers holding liquid waste shall not be accepted for disposal 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.
 - (iii) The waste is household waste.
 - (iv) The waste is spoiled food waste.
- (7) Regulated hazardous waste as defined in 30 TAC §330.3.
- (8) Polychlorinated biphenyls (PCB) wastes, except as permitted under 40 CFR Part 761.
- (9) Radioactive materials as defined in Chapter 336, except as authorized in Chapter 336 or that are subject to an exemption of the Department of Health Services.

Receipt of the following wastes does not require the strict review detailed in the Special Waste Evaluation Criteria (Section 2.0) provided the waste is handled in accordance with the procedures listed below.

- (1) Special wastes from healthcare-related facilities treated in accordance with the procedures specified in 30 TAC §§330.1201-330.1221 (relating to Medical Waste Management). These wastes will be disposed of at the working face of the landfill with other wastes.
- (2) Dead animals and/or slaughterhouse waste provided the carcasses and/or slaughterhouse waste are covered by 3 feet of other solid waste or at least 2 feet of soil immediately upon receipt.
- (3) Regulated asbestos-containing material (RACM) as defined in 40 CFR §61 disposed of in accordance with the Site Asbestos Management Plan. Refer to IVD - Regulated Asbestos-Containing Material Plan.
- (4) Nonregulated asbestos-containing materials (non-RACM) will be disposed of at the working face of the landfill with other wastes.
- (5) Empty containers that have been used for pesticides, herbicides, fungicides, or rodenticides will be disposed of at the working face of the landfill with other wastes provided:
 - (a) The containers are triple-rinsed prior to receipt at the site.
 - (b) The containers are rendered unusable prior to or upon receipt at the site.
 - (c) The containers are covered by the end of the same working day they are received.
- (6) Municipal hazardous waste from a conditionally exempt small quantity generator (CESQG), provided the amount of waste does not exceed 220 pounds (100 kilograms) per month per generator, will be disposed of at the working face of the landfill with other wastes.
- (7) Sludges, grease trap waste, grit trap waste, or liquid wastes from municipal sources will be disposed of at the working face of the landfill, provided the material has been, or is to be, treated or processed and the treated/processed material has been tested, in accordance with the Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication Number SW-846), as amended, and is certified to contain no free liquids.

2 SPECIAL WASTE EVALUATION CRITERIA

In accordance with 30 TAC §330.127(5)(A), and 30 TAC §330.171, WMTX has developed a program, the Special Waste Acceptance Plan, that is designed to take steps in addition to random inspections on incoming loads to prevent the receipt of hazardous waste and PCB wastes at the landfill. This proactive policy minimizes the potential that hazardous or otherwise unacceptable waste will be transported to the site for disposal. Implementation of the program provides protection from the potential dangers that a special waste could pose to employees, the public, or the environment through improper management, and serves as a hazardous waste and PCB screening mechanism that minimizes the potential of these waste streams entering the landfill.

The program specifically provides for pre-acceptance procedures, prior to any shipment of that waste to the facility, to assure that a particular waste is nonhazardous and to determine the acceptability of a waste pursuant to facility permit conditions, applicable regulations, and operating capabilities. This process is implemented in two ways: (1) review of waste streams prior to acceptance, and (2) monitoring under qualified site personnel supervision of waste arriving at the gate and/or being disposed of at the working face. Specific procedures are also established for acceptance and handling of special wastes as defined by TCEQ.

Prior to acceptance of any industrial waste for disposal, the customer is canvassed to determine if any wastes proposed for disposal meet the definition of "Special Waste." Should any waste be identified as a special waste the customer is required to state the characteristics, origin, and estimated quantity of the special waste proposed for disposal. In addition, if the waste is not readily identifiable, the generator may be required to provide other pertinent information regarding the waste that might aid in its identification. The following process is completed before waste is accepted:

- (a) The potential customer provides written documentation of the nature of the waste stream to the landfill via the Generator's Waste Profile Sheet (GWPS) or other documentation (an example form that may be used is provided in Appendix IVC-A). The customer may be required to provide any laboratory analyses data for the waste stream intended for disposal. If the potential customer is an industrial facility that is required to have specific waste codes assigned, whether self-classified, TCEQ-classified, or EPA-classified, documentation used to assign the waste classifications must be provided for review. Dependent on the waste stream, sufficient documentation may be the GWPS.
- (b) The WMTX Approval Manager or designee will review the GWPS and all information provided by the potential generator/customer. The Waste Approval Manager or designee, based on his/her qualifications, is given

internal approval by WMTX to implement the Special Waste Acceptance Plan including the review and approval for the acceptance of special waste. The Waste Approval Manager or designee is typically assigned to more than one site and therefore may or may not be located at the landfill at any given time. The Waste Approval Manager or designee ensures that the analytical information meets the requirements as described later, TCEQ approval is given when appropriate, the necessary conditions/limitations on managing the waste are assigned, the intermediate transfer facility (if applicable) is permitted to accept the waste, and if the waste is eligible for disposal at the landfill. If the Waste Approval Manager decides the waste is eligible, an approval is granted, an expiration date is assigned, and all information is routed to the designated customer service representative. The Waste Approval Manager will also inform the customer in writing of all conditions/limitations that apply to managing special waste. The customer must agree to comply with all conditions/limitations as stated by the Waste Approval Manager and contained in the GWPS and service agreement.

The laboratory analyses required for review with the GWPS is dependent on the type of waste stream to be deposited. Analyses reports must be legible and signed by the laboratory. They should include the analytical methods used, the concentration of the observed value in appropriate units, the detection limit of the analyses if analyzed chemical constituents are not detected, and a description of the waste material analyzed or laboratory identification number. Analyses should be conducted within 12 months prior to the date on the GWPS in accordance with EPA test procedures as outlined in the analytical regulations SW-846, unless conditions exist that indicate older analytical data is representative of the waste stream. Generator process knowledge may be used for additional consideration of acceptance, if approved by the Waste Approval Manager or designee, for analyses greater than 12 months old. The analyses that may be required on the special waste are corrosiveness, ignitability, reactivity, toxicity (TCLP), and any other state or federal required tests (dependent on the waste stream) to determine if a special waste is a hazardous waste.

WMTX requires the generator to provide notification and additional process and/or chemical analysis data in the event that there are changes in the process from which the waste is produced. In the event that physical characteristics of a waste received at the landfill differ from that of the approved waste stream, disposal ceases and the generator is required to provide additional process and/or chemical analysis data in order to determine the cause of the change in waste characteristics and any associated disposal requirements.

3 DOCUMENTATION AND RECORDKEEPING

Documentation for all profiled wastes that arrive for management at WMTX landfills is reviewed at the facility. If the waste and associated documentation is missing, incomplete, or the characteristics of the waste are questionable, all discrepancies must be resolved prior to acceptance of the waste. In the event the discrepancies cannot be resolved, the waste load will be rejected. All necessary and required paperwork relating to the acceptance of special waste, including the Field Checklist for Special Waste Stream Compliance (FCSWSC) and the GWPS, will be maintained on site in the Site Operating Record and available for review. Refer to Appendix IVC-A for an example of a GWPS and Appendix IVC-B for an example of a FCSWSC. As the result of potential future internal WMTX revisions, the format and/or information contained in the FCSWSC and/or GWPS may change.

4 TRAINING OF PERSONNEL AND WASTE SCREENING

In addition to the implementation of WMTX's Special Waste Acceptance Plan, which provides for specific and detailed pre-acceptance procedures to prevent the receipt of hazardous waste, PCBs, and other prohibited wastes, appropriate facility personnel will receive training to recognize potential hazardous waste, PCBs, or other prohibited wastes. WMTX provides in-house company designed training to key site personnel, gatehouse personnel and field personnel. This in-house training is function specific and may include Subtitle D requirements, state specific requirements, regulations and procedures, waste recognition and/or waste screening requirements and procedures for acceptable and unacceptable wastes, definition and identification of special wastes, hazardous waste, PCBs or other prohibited waste, and the requirements and procedures of WMTX's Special Waste Acceptance Plan. Documentation and a record of all training provided to key facility personnel will be maintained on site in the Site Operating Record and available for inspection.

This required training allows for the monitoring of waste streams as they enter the facility, as well as during disposal, under the supervision of properly trained site personnel. Upon arrival at the site, appropriate gatehouse personnel screen all industrial customers to ensure that all special waste represented by the GWPS has been identified and that all required paperwork, approvals, and documentation are in place. In the event that the description or physical characteristics of a waste being received at the landfill differ from that of an approved waste stream, or if a previously unidentified waste is suspected, the load will be stopped and the generator will be required to provide additional process and/or chemical analysis data in order to determine the proper identity of the waste. Upon arrival at the working face and during the unloading of an industrial customer's waste, appropriate field personnel screen the waste for signs of any waste that may exhibit signs of being hazardous or otherwise prohibited waste.

Household hazardous wastes are exempt from regulation under 40 CFR 261.4(b)(1) and under 30 TAC §§335.401-335.419. Notwithstanding this exemption, shipments of residential waste can be screened and visually monitored for hazardous wastes upon arrival at the gatehouse and during unloading at the working face or citizen's collection station by the appropriate gatehouse and field personnel.

During the waste screening process by the appropriate field and gatehouse personnel, items to consider and look for may include the type of transport vehicle, signs of liquids or leaking liquids, strange odors, nonhousehold size containers, smoke, vapors, unusual color or content, unusual compaction, excessive liquids, powders or abnormal products, unusual or prohibited signage or labeling, and body language of driver (i.e., suspicious or nervous appearance or actions).

Should an incident occur where hazardous waste, PCB waste prohibited from Subtitle D land disposal, or other prohibited wastes are suspected or discovered, the waste will not be authorized for disposal but will instead be isolated until the material can be adequately identified to determine the proper disposition/remediation of the material and the appropriate handling procedures. During this identification process, the facility will make a reasonable attempt to determine the identity of the generator of the material.

If the generator is identified, he will be contacted to determine the identity of the material. If the material is determined to be a nonacceptable waste for the facility, the waste will be returned to the generator for proper disposal. The proper disposition/remediation of the prohibited waste will be specific to the waste.

If the generator cannot be identified, the facility will take reasonable steps to determine the identity of the material. If the material is determined to be a hazardous waste, PCB, or other prohibited material, the TCEQ will be notified of the incident and the planned disposition/remediation of the material. The facility will make the necessary arrangements for proper disposition/remediation of the waste.

5 OPERATIONAL PROCEDURES

Special waste delivered to the landfill for disposal will be checked against the pre-acceptance information to match the contents and nature of waste. The gate attendant will monitor the loads by observing the vehicle, and/or inspecting the load, and/or questioning the driver concerning the origin of the waste. Additional QA/QC may include pH testing, ignitability testing, and paint filter testing. If conducted, QA/QC results will be recorded and referenced by manifest document number and maintained in the site operating records. Wastes requiring special handling are diverted to the appropriate special management area.

Wastes containing free liquids (Vacuum Truck Wastes or other wastes as determined using the paint filter liquids test) will be stabilized to pass the paint filter test prior to disposal in the landfill. The Atascocita RDF will perform on-site solidification/stabilization of liquid wastes. The facility may operate a permanent solidification basin within a covered building.

Trucks will be able to discharge directly into the permanent basin. Typically, lime, fly ash, cement kiln dust, cement, dried sludge, sawdust, dirt, wood chips, dusty loads, or other granular materials or wastes, or any combination of these materials will be used to solidify/stabilize the liquid. Mixing will be accomplished with a backhoe or other appropriate machinery. If necessary, the batch of solidified/stabilized material will be tested for free liquids in accordance with the Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication Number SW-846), as amended. Upon verification of the solidified/stabilized material passing the paint filter test, or other approved test, the mixture will be removed from the basin and deposited in the active face for landfilling.

Wastes with strong odors (such as dead animals, slaughterhouse wastes, sewage sludges, etc.), will be placed in a select area at the working face and covered with at least 3 feet of other solid waste or soil immediately upon receipt. Potentially dusty wastes will be transported and unloaded so as to minimize the potential for airborne particles. This includes positioning windbreaks at the working face, placing the dusty waste in contingency trenches or requiring the generator to containerize the waste. If needed, personnel may be required to wear personal protective equipment (PPE) as needed.

Appropriate landfill operations personnel will be trained in special waste management procedures, including the proper use of PPE and on-site emergency equipment. Proper PPE includes a work uniform, work boots, and safety vest. Additional PPE may include Tyvek (or equivalent) suit or coveralls, hardhat, hearing protection, gloves, and safety glasses as conditions warrant.

6 CONTINGENCY PROCEDURES

For incidental spills that do not pose a threat to waters of the state, operations staff will contain and clean up the spill using appropriate equipment at the direction of the landfill manager. For solids, site staff will use shovels, brooms, and/or heavy equipment to pick up spilled materials. For liquids, typical cleanup materials would include oil dry, absorbent pads, or other available materials to contain the spilled material. Spill cleanup kits are maintained on site at the waste inspection area. Pumps might also be used, when appropriate, to transfer liquid material from the spill area into containers.

For larger spills, or where there is potential for the waste to impact waters in the state, the landfill manager will assess the situation and determine the appropriate means to contain and collect the material. If spilled material threatens to impact storm water discharge from the site, the landfill manager will use booms or diversionary dikes, or excavate holes or pits as needed to contain the spilled material. Equipment typically available for spill response includes excavators, backhoes, dozers, pumps, and haul trucks. In the event of a spill that cannot be picked up using handheld tools, this equipment will be used as needed to contain and collect spilled material. For larger spills of liquid wastes that cannot be adequately cleaned up with on-site equipment, an emergency cleanup contractor or vacuum truck company will be contacted to assist with cleaning up the spill. Once the liquids are removed, a visual inspection of the spill area will be made, and soils observed to be potentially impacted will be over-excavated and disposed with the collected material.

Refer to the Spill Prevention Control and Countermeasures Plan (SPCC Plan) for additional information regarding cleanup procedures, reporting, inspections control, and notification requirements.

APPENDIX IVC-A

GENERATOR'S WASTE PROFILE SHEET



Generator's Non-hazardous Waste Profile Sheet

Requested Disposal Facility: _____ Profile Number: _____

Renewal for Profile Number: _____ Waste Approval Expiration Date: _____

Check here if there are multiple generating locations for this waste. Attach additional locations.

A. Waste Generator Facility Information (must reflect location of waste generation/origin)

- 1. Generator Name: _____
- 2. Site Address: _____
- 3. City/ZIP: _____
- 4. State: _____
- 5. County: _____
- 6. Contact Name/Title: _____
- 7. Email Address: _____
- 8. Phone: _____
- 9. FAX: _____
- 10. NAICS Code: _____
- 11. Generator USEPA ID #: _____
- 12. State ID# (if applicable): _____

B. Customer Information same as above

P. O. Number: _____

- 1. Customer Name: _____
- 2. Billing Address: _____
- 3. City, State and ZIP: _____
- 4. Contact Name: _____
- 5. Contact Email: _____
- 6. Phone: _____
- 7. Transporter Name: _____
- 8. Transporter ID # (if appl.): _____
- 9. Transporter Address: _____
- 10. City, State and ZIP: _____

C. Waste Stream Information

1. DESCRIPTION

a. Common Waste Name: _____
State Waste Code(s): _____

b. Describe Process Generating Waste or Source of Contamination:

c. Typical Color(s): _____

d. Strong Odor? Yes No Describe: _____

e. Physical State at 70°F: Solid Liquid Powder Semi-Solid or Sludge Other: _____

f. Layers? Single layer Multi-layer NA

g. Water Reactive? Yes No If Yes, Describe: _____

h. Free Liquid Range (%): _____ to _____ NA(solid)

i. pH Range: _____ to _____ NA(solid)

j. Liquid Flash Point: < 140°F 140°- 199°F ≥ 200°F NA(solid)

k. Flammable Solid: Yes No

l. Physical Constituents: List all constituents of waste stream - (e.g. Soil 0-80%, Wood 0-20%): (See Attached)

Constituents (Total Composition Must be ≥ 100%)	Lower Range	Unit of Measure	Upper Range	Unit of Measure
1. _____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____

2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORMATION

a. One Time Event Base Repeat Event

b. Estimated Annual Quantity: _____ Tons Cubic Yards Drums Gallons Other (specify): _____

c. Shipping Frequency: _____ Units per Month Quarter Year One Time Other

d. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If yes, answer e.) Yes No

e. USDOT Shipping Description (if applicable): _____

3. SAFETY REQUIREMENTS (Handling, PPE, etc.): _____



Generator's Non-hazardous Waste Profile Sheet

D. Regulatory Status (Please check appropriate responses)

1. Waste Identification:
- a. Does the waste meet the definition of a USEPA listed or characteristic hazardous waste as defined by 40 CFR Part 261? Yes No
 - 1. If yes, please complete a hazardous waste profile.
 - b. Does the waste meet the definition of a state hazardous waste other than identified in D.1.a? Yes No
 - 1. If yes, please complete a hazardous waste profile.
2. Is this waste included in one or more of categories below (Check all that apply)? If yes, attach supporting documentation. Yes No
- Delisted Hazardous Waste
 - Excluded Wastes Under 40CFR 261.4
 - Treated Hazardous Waste Debris
 - Treated Characteristic Hazardous Waste
3. Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated clean-up? If yes, see instructions. Yes No
4. Does the waste represented by this waste profile sheet contain radioactive material? Yes No
- a. If yes, is disposal regulated by the Nuclear Regulatory Commission? Yes No
 - b. If yes, is disposal regulated by a State Agency for radioactive waste/NORM? Yes No
5. Does the waste represented by this waste profile sheet contain Polychlorinated Biphenyls (PCBs)? Yes No
(If yes, list in Chemical Composition - C.1.I.)
- a. If yes, are the PCBs regulated by 40 CFR 761? Yes No
 - b. If yes, is it remediation waste from a project being performed under the Self-Implementing option provided in 40 CFR 761.61(a)? Yes No
 - c. If yes, were the PCBs imported into the US? Yes No
6. Does the waste contain untreated, regulated medical or infectious waste? Yes No
7. Does the waste contain asbestos? Yes No
- a. If Yes, Friable Non Friable
8. Is this profile for remediation waste from a facility that is a major source of Hazardous Air Pollutants (Site Remediation NESHAP, 40 CFR 63 subpart GGGGG)? Yes No
- a. If yes, does the waste contain <500 ppmw VOHAPs at the point of determination? Yes No

E. Generator Certification (Please read and certify by signature below)

By signing this Generator's Waste Profile Sheet, I hereby certify that all:

1. Information submitted in this profile and all attached documents contain true and accurate descriptions of the waste material;
 2. Relevant information within the possession of the Generator regarding known or suspected hazards pertaining to this waste has been disclosed to WM/the Contractor;
 3. Analytical data attached pertaining to the profiled waste was derived from testing a representative sample in accordance with 40 CFR 261.20(c) or equivalent rules; and
 4. Changes that occur in the character of the waste (i.e. changes in the process or new analytical) will be identified by the Generator and disclosed to WM (and the Contractor if applicable) prior to providing the waste to WM (and the contractor if applicable).
5. Check all that apply:
- a. Attached analytical pertains to the waste. Identify laboratory & sample ID #'s and parameters tested: _____ # Pages: _____
 - b. Only the analysis identified on the attachment pertain to the waste (identify by laboratory & sample ID #'s and parameters tested). Attachment #: _____
 - c. Additional information necessary to characterize the profiled waste has been attached (other than analytical, such as MSDS). Indicate the number of attached pages: _____
 - d. I am an agent signing on behalf of the Generator, and the delegation of authority to me from the Generator for this signature is available upon request.

Certification Signature: _____ Title: _____

Company Name: _____ Name (Print): _____

Date: _____



Generator's Non-Hazardous Waste Profile Sheet Instructions

Information on this form is used to determine if the described waste may be transported, treated, stored or disposed in a legal, safe, and environmentally sound manner. This information will be maintained in strict confidence. Typed or printed answers must be provided for Requested Disposal Facility, Certificate of Disposal (if required), Renewal information and Sections A - E. For a response of "NONE" or "NA" attach the information to the completed Generator's Non-Hazardous Waste Profile Sheet. If you have questions concerning this form, please contact 1-800-WMDisposal (1-800-963-4776).

A. Waste Generator Information

1. **Generator Name** - Enter the name of the facility where the waste is generated.
2. **Site Address** - Enter the street address (not P.O. Box) of the facility where the waste is generated.
3. **City/ZIP** - Enter the city and zip or postal code where the waste is generated.
4. **State/Province** - Enter the state or province where the waste is generated.
5. **County** - Enter the county where the waste is generated.
6. **Contact Name/Title** - Enter the name and title of the Generator's contact.
7. **Email Address** - Enter the email address of the Generator's contact.
8. **Phone** - Enter Generators contact's area code and phone number.
9. **FAX** - Enter the Generators contact's area code and facsimile number.
10. **NAICS Code** - Enter the SIC/NAIS Code for the facility where the waste is generated <http://www.census.gov/epcd/www/naics.html>.
11. **Generator USEPA ID#** - Enter the USEPA (or Canadian equivalent) identification number issued to the facility generating the waste (if applicable).
12. **State/ID#** - Enter the identification number issued by the state to the facility generating the waste (if applicable).

B. Customer Information

1. **Customer Name** - Enter the customer name that is responsible for billing. If the same as the Generator, mark "Same as Above."
2. **Billing Address** - Enter the customer address where the bill for services should be sent.
3. **City, State, ZIP** - Enter the customer's city, state and ZIP or postal code.
4. **Contact Name** - Enter the name of the person who can answer technical questions about the waste.
5. **Contact Email** - Enter the email address of the technical contact.
6. **Phone/FAX** - Enter the technical contact's area code and phone number and area code and facsimile number for the technical contact.
7. **Transporter Name** - Enter the name of the transportation company hauling the waste (if known).
8. **Transporter ID #** - Enter the Federal/State Identification number issued to the transporter (if applicable).
9. **Transporter Address** - Enter the physical address for the transportation company.
10. **City, State and ZIP** - Enter the City, State and ZIP for the transportation company.

C. Waste Stream Information

- 1.a. **Common Waste Name** - Enter a name generally descriptive of this waste (e.g., paint sludge, fluorescent bulbs).
State Waste Code - If applicable, enter the appropriate State code assigned to this type of waste.
- 1.b. **Process Generating Waste or Source of Contamination** - Describe the process or source of contamination generating the waste in detail. Identify the specific process/operation or source that generates the waste (e.g., incineration of municipal refuse, wastewater treatment, generated from domestic water conditioning, contaminated soil from gasoline UST removal.).
- 1.c. **Color(s)** - Describe the color(s), of the waste (e.g., blue, transparent, varies).
- 1.d. **Strong Odor** - DO NOT SMELL THE WASTE! If the waste has a known or strong odor, then describe (e.g., acrid, pungent, solvent, sweet).
- 1.e. **Physical State @ 70°F** - If the four boxes provided do not apply, a descriptive phrase may be entered after "Other" e.g., multi-phase).
- 1.f. **Layers** - Single layer means the waste is homogenous. Multi-layer means the waste is comprised of two or more layers (e.g., oil/water/sludge).
- 1.g. **Water Reactive** - See attached
- 1.h. **Free Liquid Range** - See attached



Generator's Non-Hazardous Waste Profile Sheet Instructions

C. Waste Stream Information (continued)

- 1.i. **pH Range** - Indicate the pH range of the waste. **Note:** Certain states may require pH of a water/waste slurry.
- 1.j. **Liquid Flash Point** - Indicate the flash point obtained using the appropriate test method.
- 1.k. **Flammable Solid** - See attached
- 1.l. **Physical Constituents** - List general components of the waste using appropriate names. If trade names are used, attach Material Safety Data Sheets or other documents that adequately describe the composition of the waste. For each component, estimate the range (in percent) in which the component is present (e.g. 90-100% Soil/0-10% debris).
- 2.a. **Event/Base Business** - Indicate if the waste is generated from a specific event or an on-going process.
- 2.b. **Estimated Annual Quantity** - Approximate annual volume in tons, yards or other (e.g., drums, gallons) that will be received by the ultimate management facility. This volume amount is not intended for use in complying with state and/or permit restrictions.
- 2.c. **Shipping Frequency** - Choose the appropriate option or "other" along with a description.
- 2.d. **US DOT Hazardous Material** - Indicate if the waste is considered to be a US DOT hazardous material in the quantities/packages shipped.
- 2.e. **US DOT Shipping Description** - If applicable, enter the proper US DOT Shipping description. For further information, see 40CFR173.
3. **Safety Requirements** - All personal protective equipment necessary to safely manage the waste stream (e.g. dust mask, gloves, respirator, do not wet waste).

D. Regulatory Status

1. **Hazardous Waste Determination** - Verify that the waste is non-hazardous as defined by RCRA or state equivalent regulation. If unsure check with your WM representative for assistance.
2. **Identify whether your waste is an excluded, delisted or treated hazardous waste** - If yes, please attach the following to the profile. Delisted - Attach the Federal Register Citation FR____ or State Agency Letter; Excluded Waste - Identify the specific citation in 40CFR261.4 Treated Hazardous Waste - Identify Method from 40CFR268; Treated Characteristic Waste - Attach Certification of Treatment.
3. **Is this waste from a Federal or State mandated clean-up** - If yes, Waste Management may require the Records of Decision or other documentation to assist others in the evaluation for proper disposal.
4. **If the waste contains radioactive material or is a Normally Occurring Radioactive Material (NORM)** - answer 4.a and 4.b.
5. **Does the waste contain PCBs?** If yes, attach analysis and supporting documentation of the PCB source. For additional information, see 40CFR761.
6. **Regulated (untreated) medical waste** - See attached.
7. **Asbestos containing waste** - Indicate whether the waste contains asbestos. If yes, indicate the type of asbestos.

E. Generator Certification (Please read and certify by signature below)

Indicate the appropriate response to questions/statements 1, 2, 3, 4 and 5. By signing this Generator's Waste Profile Sheet, the Generator certifies the responses are true and accurate with respect to the waste stream(s) listed.

Certification Signature - Signature of an authorized employee of the Generator or representative of the generator if authorized in writing by the generator.

Title - Enter Employee's title.

Company Name - Company employing the person certifying the Generator's Waste Profile Sheet.

Name - Type or Print Employee's name.

Date - Date of certification.

ATASCOCITA RECYCLING AND DISPOSAL FACILITY

**APPENDIX IVC-B
FIELD CHECKLIST FOR SPECIAL WASTE STREAM
COMPLIANCE**

FIELD CHECKLIST FOR SPECIAL WASTE STREAM COMPLIANCE

Generator: _____

Manifest: _____

Approval #: _____

Box #: _____

Waste Description: _____

	Manifested	Visual
Load (Yd/Lbs)	_____	_____
Load (Dr/Boxes)	_____	_____

	Yes	No
Same as Manifested Solid	_____	_____
Free Liquids	_____	_____
Solidification	_____	_____
If applicable:	_____	_____

	Pass	Fail
Paint Filter:	_____	_____
pH:	_____	_____

Load Accepted Yes No

(if rejected see rejection form)

Comments/Observations: _____

Inspected by: _____

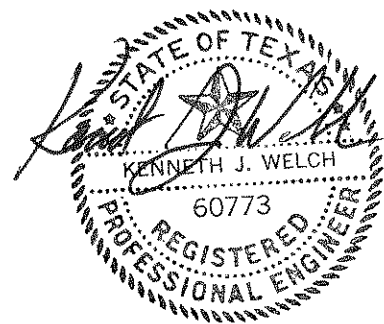
Date: _____

**ATASCOCITA RECYCLING AND DISPOSAL FACILITY
HARRIS COUNTY, TEXAS
TCEQ PERMIT APPLICATION NO. MSW 1307D
PERMIT AMENDMENT APPLICATION
PART IV – SITE OPERATING PLAN
APPENDIX IVD
REGULATED ASBESTOS-CONTAINING MATERIAL PLAN**

Prepared for

Waste Management of Texas, Inc.

September 2010



9/13/2010

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL

1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • 817-563-1144

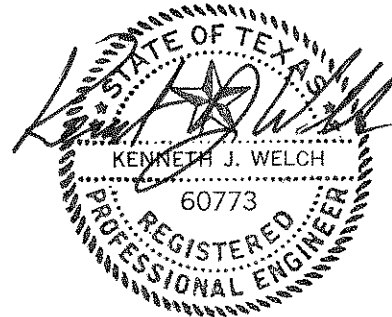
TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION NO. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION NO. 50222

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APPENDIX IVD-A Authorization to Accept RACM



9/13/2010

1 INTRODUCTION

The primary objective in handling asbestos waste is the prevention of the release of asbestos fibers during disposal operations. Proper management practices can prevent exposure to asbestos fibers.

This plan has been prepared to identify proper handling practices of regulated asbestos-containing material (RACM) during disposal operations at the Atascocita RDF. The plan has been prepared to meet all federal, state, and local requirements. These include Code of Federal Regulations Title 40 Part 61, Title 29 Parts 1910.1001 and 1926.57, Title 49 Parts 171–173; and 30 TAC §330.171(c)(3). The plan also meets WMTX policy and the Special Waste Acceptance Plan approval process for asbestos.

2 NOTIFICATION

The transporter should notify the landfill manager in advance of the delivery so that the load will arrive at a time to be properly handled and covered.

3 LANDFILL DISPOSAL

A. Notification and Recordkeeping

- (1) When a load of RACM arrives at the gatehouse, the gate attendant shall notify the landfill manager, or his designated representative, who will oversee the disposal operations.
- (2) The gate attendant shall check the accompanying manifest (required for RACM) to ensure that necessary information is properly recorded.
- (3) If the manifest is properly completed, the gate attendant will direct the driver to the proper disposal location.
- (4) A disposal log will be maintained on site documenting the location, depth, and volume of disposal of all RACM.

B. Initial Inspection

- (1) When the load of RACM arrives at the disposal area it will be inspected prior to unloading. The visual inspection by landfill personnel will be to determine if the waste was properly wetted and double-bagged or otherwise packaged as required. If not, it will be rejected for disposal at this time. TCEQ will be notified by the following working day of any such rejections.
- (2) In an effort to minimize the potential hazard posed to the public that sending an improperly wetted and bagged load back onto public roadways presents, the rejected load will be held in a discreet area on site. The generator must then make arrangements to have the waste properly bagged within 24 hours. After that time, the landfill will make arrangements to have the load rewetted and bagged at the sole expense of the generator.

C. Place of Unloading

- (1) The entire permitted waste disposal footprint of the facility will be considered a potential RACM disposal area. The site maintains a record of each load of RACM accepted as to its location, depth, or elevation, and volume of material. This information is maintained at the facility. The boundary locations of these fillable areas will be marked in the field.

- (2) RACM is to be placed in a disposal area separate from (but possibly immediately adjacent to) the active working face. A separate cell is not required. A minor depression (i.e., 3 to 5 feet deep) shall be made with a dozer or compactor prior to unloading. As an alternative, a dozer or compactor may make a cut into the refuse working face, which is deep enough to contain the volume of RACM anticipated (this does not necessarily mean going below grade). Depressions or cuts will not be made if there is potential to cut into previously placed asbestos.
- (3) Below natural grade fill areas for placement of RACM is preferred. A minimum separation of 3 feet of other solid waste is required between the bottom and/or sidewall liner and RACM. However, should this below natural grade disposal not be possible or practical, the following precautions will be taken for above natural grade fill areas to ensure the waste is not subject to future exposure through erosion or weathering of the intermediate and/or final cover. RACM disposal in above natural grade fill areas will be at least 20 feet interior of any design finished side slope of the unit. In addition, RACM disposal will be at least 10 feet below the design finished top final surface elevations of the unit.

D. Methods of Unloading

Transporter shall use either Method 1 or Method 2, as described below to unload RACM at the landfill.

- (1) Bags or containers holding RACM must be carefully unloaded and placed in their disposal location rather than thrown to the ground. Employees of the generator or transporter will perform the task of unloading the material.
- (2) Unloading of roll-off containers is permitted when performed in accordance with the following procedures:
 - a. The truck and roll-off box are positioned to unload in a location prepared in advance for disposal of the waste.
 - b. With the opened roll-off box tailgate above the edge of the excavation, the bed of the truck and the roll-off box are gradually elevated until the entire load slowly slides out of the roll-off box and into the excavation. Bags that do not land in the excavation shall be hand placed by the transporter personnel.

E. Covering the Asbestos Waste

Asbestos waste will not be compacted directly. After unloading, the asbestos waste should be covered with a minimum of 3 feet of other solid waste or 1 foot of soil. Care should be exercised in the application of the cover to ensure that the bags or containers will not be ruptured.

F. Grid System Control

A grid system will be utilized to identify where the waste will be disposed of. The site grid system (i.e., 100-foot markers) and a temporary elevation benchmark will be used in identifying the disposal locations in a log book or spreadsheet. The date of disposal, the approximate depth or elevation and grid coordinates, and the volume of waste will be recorded.

4 RECORDKEEPING

Recordkeeping for RACM disposal is in the form of manifests, Waste Shipment Records (WSR), and a disposal location log (which includes location, depth or elevation, and volume). The gate attendant normally processes the manifests, WSR, and receipt log. The landfill manager or his designee maintains the disposal location logbook indicating RACM disposal locations. Each month a Monthly Waste Receipt Summary is submitted using the STEERS reporting system provided by TCEQ. In the future, if TCEQ designates another reporting process the facility will follow the revised procedures.

A. Manifests

- (1) All shipments of RACM must be accompanied by a Texas Uniform Hazardous Waste Manifest, which includes:
 - a. Name, address, and telephone number of the generator.
 - b. Name, address, and telephone number of any transporter.
 - c. Description and quantity of RACM (including Class 3 Designation).
 - d. Date of receipt and signature of disposal facility representative.
 - e. In the "Supplemental Information" section, include the name, address, and telephone number of the asbestos remover (or abatement company). Also include a 24-hour emergency response team and telephone number.
- (2) The white original copy of the signed manifest is to be sent by the disposal facility to the waste generator within 30 days of disposal.
- (3) A copy of each manifest must be retained on site for at least 2 years.

B. Waste Shipment Records

Waste Shipment Records for each RACM load will be maintained with the minimum following information:

- (1) Name of the generator
- (2) Manifest number and WMTX Special Waste Profile number

- (3) Date of receipt
- (4) Volume of asbestos waste
- (5) Transporter name

C. Disposal Location Log or Site Map

A RACM disposal log for the landfill must be maintained. The following information should be recorded for each load of RACM accepted:

- (1) The horizontal location of disposal (using the existing site grid system)
- (2) The depth or elevation of disposal
- (3) The volume of waste
- (4) The date of disposal

D. Monthly Waste Receipt Summary

A Monthly Waste Receipt Summary will be prepared and submitted using the STEERS reporting system provided by TCEQ. In the future, if TCEQ designates another reporting process the facility will follow the revised procedures. The report will be submitted no later than the 25th day of the month following the receipt of any RACM received during the preceding calendar month.

E. Deed Recordation

Upon closure of the landfill, a specific notation that the landfill accepted RACM will be placed in the deed records of the property, which will include a site diagram or other information identifying the disposal locations of RACM. In addition, a notice of deed recordation and copies of the site diagram or other information identifying the RACM disposal locations will be submitted to the TCEQ.

5 PERSONAL PROTECTIVE EQUIPMENT

Minimizing contact with waste controls potential for exposure to asbestos. Landfill personnel will remain inside equipment while the transporter unloads the material. Should a spill occur during the disposal operation, workers involved in the cleanup should wear a respirator, disposable coveralls, gloves, and foot coverings.

6 EMPLOYEE TRAINING

- A. All employees involved in the receipt and disposal of RACM are given training annually on the proper procedures of managing RACM. This training includes:
- (1) Asbestos and its health effects
 - (2) Regulations on transportation, disposal, and worker protection
 - (3) Paperwork, manifesting and notification requirements
 - (4) Personal protection and protective equipment (including respirator fit tests)
 - (5) Transportation requirements
 - (6) RACM receipt procedures
 - (7) RACM disposal procedures
 - (8) Location logging and recordkeeping
 - (9) Spill response actions

Training of employees will be completely documented and the documentation maintained on site.

- B. Contractors and others working around the RACM disposal areas are informed of the RACM disposal practices at the site. Should any excavation work be necessary in areas of previous RACM disposal, a written notification to the TCEQ or EPA Administrator will be made 45 days prior to excavating or otherwise disturbing any RACM. Excavated or exposed RACM will be handled in the same manner as if the waste had just been brought to the site for disposal.

7 CONTINGENCY PLAN

This contingency plan has been developed in the event that a spill of RACM occurs during unloading operations. Personnel involved in the response are to be kept to a minimum to reduce the risk to employees. The landfill manager or his designated representative shall be in charge of the landfill's spill response for RACM. The following procedures will be followed in the event of a spill of RACM at the landfill:

A. Personal Protection

- (1) Get upwind of the RACM.
- (2) Employees involved in cleanup should make use of their spill control kits, including:
 - a. Respirator
 - b. Disposable coveralls
 - c. Shoe covers
 - d. Gloves
 - e. Safety glasses or goggles
- (3) Keep others away until cleanup is complete.

B. Notification

- (1) Notify the landfill office / landfill manager.
- (2) Should the spill involve one pound or more, the landfill manager or his designated representative will notify the National Response Center (NRC).

C. Emergency Cleanup Actions

- (1) Summon water truck, wet down waste with a misting spray of water.
- (2) Scoop the waste and put it into a properly labeled bag or a closed container and dispose of it with the other RACM.
- (3) Wash any contaminated equipment or machinery.

- (4) Dispose of gloves, coveralls, and shoe covers in a tightly sealed 6-mil plastic bag.
- (5) Wash all other personal protective equipment with soap and water.
- (6) Check respirator and refit with new filter cartridges, and place into a resealable, airtight container for future use.

D. Spill Response Equipment

- (1) An OSHA approved respirator with the proper prefilters
- (2) A disposable, Tyvek or similar coverall suit
- (3) Disposable gloves
- (4) Rubber boots
- (5) 6-mil plastic bags with asbestos warning
- (6) Water spray tank
- (7) Roll of duct tape
- (8) Broom and shovel

E. Emergency Response Contractor

The landfill manager may contract with an outside contractor to conduct the landfill's spill response for RACM.

APPENDIX IVD-A
AUTHORIZATION TO ACCEPT RACM

John Hill, Chairman
Pat Reed, Commissioner
Peggy Carter, Commissioner
Anthony Crivello, Executive Director



TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

October 14, 1993

Mr. Richard A. Dornier, P.E.
Region Manager-Engineering
Waste Management of Texas, Inc.
1320 Greenway Drive, Suite 900
Irving, TX 75038

Subject: Solid Waste Harris - County
WMT/Atascocita - Permit No. 1307
Authorization to Accept Regulated Asbestos
Containing Material (RACM)

Dear Mr. Dornier:

In order to improve the review process and expedite waste management of regulated asbestos wastes, the Texas Natural Resource Conservation Commission (TNRCC) has evaluated your landfill in accordance with changes in our current requirements which will go into effect on October 9, 1993 here in Texas. In accordance with 30 Texas Administrative Code (TAC) Section 336.136 (a) (1), the TNRCC will allow your facility to accept regulated asbestos containing material waste without submitting specific information to the TNRCC for review for each disposal occurrence. This authorization is in effect beginning October 9, 1993 and is subject to review by the Executive Director should federal or state statutes or regulations change.

The above cited landfill is authorized to accept regulated asbestos containing material provided that the waste is handled in accordance with the following provisions:

- 1) The landfill must comply with all federal regulations applicable to landfills accepting asbestos as outlined in the November 20, 1990 Federal Register;
- 2) The waste is marked as required by federal regulations (Title 40 Code of Federal Regulations 61) for the asbestos waste;
- 3) The shipment is accompanied by a manifest form equivalent to that outlined in the November 20, 1990 Federal Register; and

P.O. Box 13667 • Austin, Texas 78713-3667 • 512/468-1000

Mr. Dornier
Page 2
October 14, 1993

- 4) Regulated asbestos waste from a Railroad Commission of Texas (RRCT) jurisdiction must obtain a copy of the RRCT minor permit authorizing transport and disposal.

~~Please note that it is the responsibility of the landfill operator to report any improperly packaged shipments of such waste to the Environmental Protection Agency [EPA Region 6, (214) 688-6750] within one working day. The landfill must also return a completed copy of the manifest to the generator of the waste within 30 days.~~

If you have any questions regarding this authorization, please contact any member of the Special Waste team at (512) 906-6832.

Sincerely,



Dorca Zaragosa
Team Leader, Special Waste
Industrial & Hazardous Waste Division

Dz:ds\jlm

cc: Ronald Bond, Municipal Solid Waste
TNRCC Region 12 Office- Houston
Special Waste File (1307-BA)
Harris County Health Department
Houston Health and Human Services Department
Harris County Pollution Control Department