

Division of Solid and Hazardous Waste
CN 414
Trenton, New Jersey 08625
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SOLID WASTE FACILITY PERMIT

for
Phase III Monmouth County Reclamation Center Landfill
&
Transfer Station/Materials Recovery Facility

Under the provisions of N.J.S.A. 13:1E-1 *et seq.* known as the Solid Waste Management Act, this Solid Waste Facility Permit (Permit) is hereby issued to:

Monmouth County Board of Chosen Freeholders

FACILITY TYPES: Sanitary Landfill (Landfill) & Transfer Station/ Materials Recovery Facility (TS/MRF)

FACILITY NUMBERS: 1336000590E3 (Landfill) & 1336001346 (TS/MRF)

LOT & BLOCK NO.(S): 1/130; 2.01, Part of 16, 17, 19.01/131; 1, 6, 11, 12/132; 1/133 and 1, 2, 3, 4, 4.02, 5, 8.01, 9, 10, 11.01, 13, 13.01 & 18/134

MUNICIPALITY: Borough of Tinton Falls

COUNTY: Monmouth

EXPIRATION DATE: April 12, 2001

This Permit is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection (Department) as same may be amended in the future. Any references herein to specific regulations include any future amendments thereto.

This Permit shall not prejudice any claim the state may have to riparian land, nor does it allow the Permittee to fill or alter or allow to be filled or altered in any way, lands that are deemed to be riparian, wetlands, stream encroachment areas or flood plains, or that are within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this state without prior acquisition of the necessary grants, permits or approvals from the Department.

Compliance with the terms of this Permit does not relieve the Permittee of the obligation to comply with all applicable state and federal statutes, rules and other permits.

Failure to comply with all of the conditions specified herein may result in revocation of this Permit and/or other regulatory or legal actions which the Department is authorized to institute by law.

This Permit is non-transferable without approval from the Department pursuant to N.J.A.C. 7:26-2.7(e).

April 12, 1996
Date of Issuance

Signed by Robert C. Ciolek, Assistant Director
Robert C. Ciolek
Assistant Director
Office of Permitting

Solid Waste Facility Permit for the Phase III Monmouth County Reclamation Center Landfill (Landfill) and the Transfer Station/ Materials Recovery Facility (TS/MRF), Borough of Tinton Falls, Monmouth County, Facility Numbers 1336000590E3 and 1336001346, respectively.

This Permit is contingent upon compliance with and implementation of the following:

A. GENERAL CONDITIONS

1. Permitted Waste Types

(a) Landfill

The following solid waste materials as identified by waste ID numbers and defined in N.J.A.C. 7:26-2.13(g), may be accepted for disposal at the landfill:

<u>I.D.</u>	<u>Waste</u>
10	Municipal Waste (household, commercial and institutional)
13	Bulky Waste
23	Vegetative Waste except leaves pursuant to N.J.S.A. 13:1E-99.21
25	Animal and Food Processing Waste
27	Dry Industrial Waste

(b) TS/MRF

The following solid waste materials as identified by waste ID numbers and defined in N.J.A.C. 7:26-2.13(g), may be accepted for processing at the TS/MRF:

<u>I.D.</u>	<u>Waste</u>
10	Municipal Waste (household, commercial and institutional)
13	Bulky Waste

2. Prohibited Waste Types

The following waste materials, liquid or solid, as identified by waste ID numbers and defined in N.J.A.C. 7:26-2.13(g) and (h), may not be accepted for disposal at the facility:

<u>I.D.</u>	<u>Waste</u>
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12	Dry Sewage Sludge
23	Vegetative Waste (only at the TS/MRF)
25	Animal and Food Processing Waste (only at the TS/MRF)
27	Dry Industrial Waste (only at the TS/MRF)
72	Bulk Liquid and Semi-Liquids
73	Septic Tank Clean-Out Wastes
74	Liquid Sewage Sludge

Regulated Medical Waste, Class 1 through 7, as per N.J.A.C. 7:26-3A.5.

Hazardous Waste as defined, identified or otherwise classified in N.J.A.C. 7:26-8.

Recyclable materials as designated in the Monmouth County District Recycling Plan.

3. Recyclables

Recyclable materials designated in the Monmouth County District Recycling Plan to be source separated pursuant to N.J.S.A. 13:1E-99.11 and 99.13b(2) shall not be accepted for disposal at the landfill or for processing at the TS/MRF.

Any recyclable materials described above, detected in a load of waste accepted at the landfill shall be handled by the Permittee pursuant to the landfill's Operation and Maintenance Manual.

Any recyclable materials described above that are detected in a load of waste accepted at the TS/MRF, shall be handled pursuant to the recyclables inspection plan listed at Condition C-2 of this Permit.

4. Haulage Vehicles

Only vehicles properly registered, pursuant to N.J.A.C. 7:26-3, with the Department, unless exempt from the registration requirements pursuant to N.J.A.C. 7:26-3.3, and displaying the appropriate registration number shall be admitted for unloading of any solid waste at the facility. The facility shall be operated in accordance with N.J.A.C. 7:26-2.11.

5. Waste Delivery Haul Routes & Traffic Control

The Permittee shall ensure that all solid waste collection/haulage vehicles that access and egress the facility adhere to the designated primary truck routes as described in the operation and maintenance manual for the landfill and in the engineering plans and documents in the

TS/MRF application. The Permittee shall post at the facility and provide photo-copies to the users of the facility the primary truck routes.

All vehicles hauling waste shall enter the site from the main access road, which is located off Asbury Avenue and configured with three lanes for inbound traffic and one lane for outbound traffic, during normal operations. The second access, which is also located off Asbury Avenue and consists of one inbound and one outbound lane, shall be utilized by onsite personnel and visitors only. The third and fourth access from Shafto Road shall be permitted to construction vehicles only during construction phases and for emergency purposes.

Delivery vehicles not using the assigned routes shall not be permitted to deposit solid waste at the facility.

Further, the following improvements shall be in place at the Route 33/Shafto Road intersection for the TS/MRF to operate at full permitted capacity (see Condition C-6):

- Widening of Shafto Road that will eliminate the jughandle and will provide left turn lanes on all approaches; and/or
- Timing changes at the traffic light that will provide additional green time to Shafto Road.

If the additional traffic generated by the operation of the facility results in a decrease in the Level of Service at critical intersections, the Department shall require the Permittee to develop permanent corrective measures to be implemented immediately after approval by the Department and any other appropriate agencies is issued.

The Department reserves the right to require the Permittee to perform additional traffic surveys, if necessary, if all or part of the waste is redirected to out of county disposal facilities for an indefinite period of time.

6. On-site Traffic Control

On-site traffic control measures shall be implemented to provide for orderly vehicle movement on the facility grounds. The measures implemented shall include the appropriate use of lane delineations; signals and signs. All delivery trucks shall queue, as necessary, in areas designated for that purpose. All on-site roadways, except the temporary roads on the active areas of the landfill, utilized for vehicle traffic shall be constructed, paved and maintained to withstand heavy traffic usage.

7. Household Hazardous Waste Facility

The operation of the on-site household hazardous waste facility shall be conducted in accordance with the procedures contained in the approved operation and maintenance manual entitled

" Operations and Maintenance Manual, Household Hazardous Waste Facility, Tinton Falls, New Jersey " revised March 1995, prepared by the Monmouth County Department of Health.

8. Shredder Facility

- a. The solid waste materials as identified by waste ID numbers in Condition A-1(a) shall only be accepted for shredding at this facility. No waste shall be stored at the shredder facility for more than twenty-four (24) hours.
- b. All waste size reduction equipment, which due to the nature of its operation may have the potential for explosion, shall be designed and equipped with an effective explosion detection and suppression system which shall be situated within the shredder facility in such a manner as to directionalize the force of any explosion in order to effectively minimize damage to the building and the chances of injury to employees and the public.
- c. Routine housekeeping and maintenance procedures shall be implemented within the shredder facility interior to prevent the accumulation of dust and debris and to maintain general cleanliness in the working environment. All areas where solid waste has come in contact shall be cleaned frequently to provide an acceptable level of cleanliness.

9. Unauthorized Waste

A program shall be established and maintained to detect and remove unauthorized waste from the waste stream entering the facility which, at a minimum, shall include the following:

- a. Any truck suspected of hauling hazardous waste shall be stopped and inspected. Any vehicle found to be carrying a hazardous waste material as defined at N.J.A.C. 7:26-1.4 shall not be permitted to dump at the facility.
- b. Continuous visual monitoring of the discharged waste shall be conducted by facility personnel. Any suspected unacceptable waste shall be removed from the processing stream.
- c. Any regulated medical waste delivered to the facility shall be handled as described in the Monmouth County Reclamation Center manual. Any suspected hazardous waste or liquids found in a load accepted at the facility shall not be returned to the generator. Such material shall be segregated and stored in a secure manner and the discovery of any such wastes at the facility shall immediately be brought to the attention of the NJDEP Water and Hazardous Waste Enforcement Program, Regional Enforcement Office, at (609) 584-4200. After-work hours and weekend (or holiday) incidents shall be immediately reported to the NJDEP Environmental Action Line at (609) 292-7172. The Permittee shall secure the name of the collector/hauler suspected of delivering such waste to the facility and related information surrounding the incident, if available, and shall make this information known to the Department's enforcement personnel.

This program shall be included in the final Operations and Maintenance manual prepared for

the landfill and TS/MRF.

10. Vector Control

The sanitary landfill shall be operated in a manner which minimizes the propagation and harborage of insects, rodents and birds. Cover material shall be applied as needed to control vectors. An effective vector control program shall also be instituted and maintained at the TS/MRF.

If vectors still present a problem, the Permittee shall implement a program in compliance with the requirements of the New Jersey Pesticide Control Code, N.J.A.C. 7:30, by an applicator of pesticides certified in accordance with N.J.A.C. 7:30.

11. Noise Control

Noise control shall be implemented to ensure that sound levels generated by the facility operation, including vehicles, do not exceed the standards set forth by the New Jersey Noise Control Regulations at N.J.A.C. 7:29-1.2.

12. Odor Control

The operation of the facility shall not cause any air contaminant, including an air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in such quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property, except in areas over which the owner or operator has exclusive use or occupancy.

Malodorous emissions shall be controlled by the use of daily cover at the landfill. In the event that this is not satisfactory, a suitable deodorant shall be used. Odorous solid waste shall be covered immediately after unloading with a minimum of six inches of earthen cover.

For the operation of the TS/MRF, the Permittee shall apply and obtain an Air Pollution Control Permit from the Department's Air Quality Permitting pursuant to N.J.A.C. 7:26-8.2(a)16.

13. Fire Safety

An adequate water supply and/or fire fighting equipment shall be readily available on-site or on call to extinguish any and all fires. In case of a fire, the Permittee shall immediately notify the local police and fire department having jurisdiction and the NJDEP action line (609) 292-7172. The Permittee shall be responsible for initiating and continuing fire-fighting actions until all smoldering, smoking and burning ceases. The Permittee shall seek and obtain fire-fighting assistance if smoldering, smoking or burning persists for longer than 24 hours. The Permittee shall ensure that local fire companies are thoroughly versed in the emergency plan of action for a fire at the facility. Specific procedures shall be outlined in the final Operations

and Maintenance Manual for the landfill as well as the TS/MRF.

14. Security

Access to the site shall be restricted to facility personnel and authorized visitors only. Security procedures shall be implemented that provide for an effective means of controlling entry and exit at all times. The security guards shall maintain a 24-hour surveillance of the site. Security fencing with gate controls shall be installed around the entire facility. Presently an 8 foot high chain link fence encloses the Monmouth County Reclamation Center. The Phase III Landfill shall be included in an 8 foot high chain link fence envelope to control access to the landfill.

15. Hours of Operation & Processing

Permitted solid waste types shall be accepted at the facility only in accordance with the following delivery schedule:

	7:00 AM to 3:30 PM	Monday through Friday
	7:00 AM to 2:00 PM	Saturday
Day	7:00 AM to 12:00 NOON	Memorial Day, Independence Day, and Labor

The only holidays during which the facility will be fully closed are New Year's Day, Thanksgiving and Christmas.

Any deviation from these times shall be in compliance with the terms of the facility's tariff that governs customer related operational issues. The entrance gate shall be posted with the aforementioned operating hours of the facility.

Waste may be processed at the TS/MRF according to the following schedule:

Twenty-four (24) hours a day, Monday through Saturday.

The Department reserves the right to revise the above schedule should the operation of this facility, under any circumstances, result in violations of the noise level standards established in Condition A-11 of this Permit.

Waste deliveries to the facility shall be scheduled in such a manner as to minimize truck queuing on the facility property. Under no circumstances shall delivery trucks be allowed to back up onto public roads.

16. Safety Procedures

A copy of the operating safety procedures shall be posted on-site. The Permittee shall follow the Occupational Safety and Health Administration (OSHA) standards in the construction and

operation of this facility for the safety of contractors, employees and other persons entering the premises.

Additionally, appropriate facility staff shall be trained to effectively respond to any equipment malfunction or emergency situation that may arise during facility operation.

17. Housekeeping

Routine housekeeping and maintenance procedures shall be implemented within the facility interior to prevent the accumulation of dust and debris on the public roads and to maintain general cleanliness in the working environment.

Litter at the landfill shall be controlled through the use of moveable fences of sufficient height or by an equivalent means. The litter fence shall be policed daily, and the litter collected shall be properly disposed of at the working face of the landfill.

Dust control at the landfill shall be affected by the spraying of water or the spreading of calcium chloride or an equivalent method approved by the Division as needed. Spraying of waste oil is prohibited.

The TS/MRF exterior grounds shall be maintained in a manner free of litter and debris. All areas within the TS/MRF where solid waste has come in contact shall be cleaned daily in accordance with the housekeeping plans of the O&M manual. All TS/MRF floor drains, sumps and catchment basins shall be maintained free of obstruction to facilitate effluent drainage.

Mud, soil, or other materials shall not be tracked onto any public roads by exiting vehicles. Effective measures shall be implemented to comply with this condition. If these measures prove ineffective in controlling soil tracking, the Permittee shall remove all soil or other materials from the tires of exiting vehicles by means of a high pressure steam (or water) cleaning apparatus combined with a rumble rack.

18. Facility Operator

Any private individual, entity or corporation selected by the Permittee to operate part or all of the facility activities, specifically the TS/MRF activities, shall be fully registered with the Department to conduct solid waste business in the State of New Jersey pursuant to the provisions set forth at N.J.A.C. 7:26-16.

19. Facility Personnel Training

All personnel who are directly involved in facility waste management activities or who operate, service or monitor any facility equipment, machinery or system shall successfully complete an initial program of classroom or on-the-job training which includes instruction in the operations and maintenance of the equipment, machinery and systems and which teaches them to perform their duties in a manner that ensures the facility's compliance with the requirements of

N.J.A.C. 7:26 and the conditions of all Departmental permits issued to the facility.

The training program shall ensure that appropriate facility personnel are able to effectively respond to any equipment malfunction or emergency situation which may arise. The training program shall provide instruction in the use of safety equipment, procedures for inspecting and repairing facility equipment, machinery and monitoring systems and the procedures to be followed during planned or unplanned shutdown of operations.

The training program shall require constant monitoring of incoming loads and shall include instruction related to identification and proper handling of suspected unauthorized waste types. Instruction in fire training and noise monitoring shall be provided to appropriate personnel.

20. Facility Staffing

The facility shall maintain sufficient staff to ensure proper, orderly, and safe operation of all materials handling, processing, monitoring and control, safety, emergency, and security equipment items. Concurrently, the level of staffing shall provide the capability to handle all routine facility maintenance requirements and also to respond to all emergency situations.

A fully trained and qualified foreman or supervisor who is designated and authorized by the Permittee to direct and implement all operational decisions shall be present at the facility during all operating hours.

21. Emergency Actions

In the event of an emergency, all measures outlined in N.J.A.C. 7:26-2A.8(b)36 shall be followed. The Department shall be notified immediately at (609) 292-7172.

22. Plans On-Site

One complete set of the approved engineering plans, the engineering reports, the final Operation and Maintenance Manuals, the operations record, the environmental and health impact statement and a copy of this Permit shall be kept at the facility and shall be made available for inspection by Department personnel or its designated representatives.

23. As-Built Certification

Upon completion of construction of each phase of the landfill, certification by a New Jersey Licensed Professional Engineer with expertise in civil or geotechnical engineering shall be provided as specified in N.J.A.C. 7:26-2A.7(a)20 through 24. The certification shall include a summary of daily quality control reports, all test results and two sets of as-built drawings.

No work performed under this Permit shall be considered complete until such engineer's certification has been submitted to and accepted by this Division. In the event that said

certification is not received or is not accepted, the work shall be considered incomplete.

For the TS/MRF, the Permittee shall retain the services of or have under contract a licensed professional engineer registered in the State of New Jersey to supervise the construction of the facility. Such a person shall certify in writing to the Department subsequent to completion of the facility construction phase and prior to initiation of the testing phase of all material process equipment that he/she has personally examined each major stage of facility construction and that the facility has been constructed in accordance with this Permit, the documents, statements, designs and plans submitted in whole or as a part of the application, as approved by the Department. The certification of construction shall be submitted to the Division of Solid and Hazardous Waste, Office of Permitting within thirty (30) days of completion of the TS/MRF.

All certifications shall bear the raised seal of the licensed professional engineer, his/her signature and the date of certification. The certification shall include the following statement: "I certify, under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment".

24. Duration of Permit

This Permit shall be effective for a maximum period of five (5) years from the date of its issuance. This Permit may be renewed at that time upon proper application, in accordance with procedures outlined in N.J.A.C. 7:26-2.7(b).

25. Right of Entry

The Permittee, by acceptance of this permit, hereby authorizes entry by Department representatives to make whatever inspections, searches, or examinations are deemed necessary by those representatives to determine the extent of compliance with any conditions of this Permit.

26. Operations Record

The facility shall not receive waste from any generators other than those specified in the Monmouth County District Solid Waste Management Plan and the regulations on Interdistrict and Intradistrict Solid Waste Flow, N.J.A.C. 7:26-6.1 through 6.7. Records of the facility's operations shall be maintained on a daily basis by the Permittee. Monthly summaries of the record shall be submitted, before the 20th of each month following the month for which the information was recorded , to:

New Jersey Department of Environmental Protection
Bureau of Recycling and Planning
Division of Solid and Hazardous Waste
CN 414, Trenton, New Jersey 08625-0414

The information shall include, but not limited to, the following:

- a. The weight of solid waste delivered to the facility for each waste type permitted by this Permit;
- b. The number of collection vehicles delivering waste to the facility;
- c. The volume and tonnage of waste flow, reported by type, from each municipality;
- d. The volume and tonnage of waste removed for disposal and the facility receiving the waste (when applicable);
- e. The number of vehicles removing waste for disposal or recyclables for reuse or further processing from the facility;
- f. Tonnage records of recyclables recovered shall be kept for each separate material recovered.

Where applicable, the information required to be recorded in the daily record shall be supplied by the collector/hauler to the facility operator on the waste origin/waste disposal (O&D) forms (or duplicates of the same). The O&D forms shall be kept by the Permittee for a minimum of three years and shall be made available for inspection by the appropriate representative of the Department upon request. The information provided on the daily records, O&D forms and monthly summaries shall denote compliance with N.J.A.C. 7:26-2.13.

The information provided on the daily records, O&D forms and monthly summary shall denote compliance with the adopted amendments to N.J.A.C. 7:26-2.13, 2B.9 and 2B.10 (mixed load rules).

B. SANITARY LANDFILL

I. DESIGN AND CONSTRUCTION

1. Landfill's Liner System Profile

The landfill's double composite liner system profile, in descending order, shall be as follows:

- . A 18-inch drainage layer consisting of sand with a minimum hydraulic conductivity of 1×10^{-2} cm/sec. This drainage layer shall contain eight-inch PVC perforated pipes to convey the leachate to the headers.
- . A geosynthetic drainage layer consisting of geonet with non-woven geotextile bonded on top having a hydraulic conductivity of 33 cm/sec.

- . A primary geomembrane liner consisting of a high density polyethylene (HDPE) geomembrane possessing a nominal thickness of 80 mils.
- . A bentonite mat consisting of compressed bentonite and geosynthetic fabrics with a maximum hydraulic conductivity of 1×10^{-7} cm/sec. or less.
- . A geosynthetic leak detection layer consisting of geonet with non-woven geotextile bonded on top having a hydraulic conductivity of 33 cm/sec. or twelve (12) inch thick layer of sand with a minimum hydraulic conductivity of 1×10^{-2} cm/sec.
- . A secondary geomembrane liner consisting of a high density polyethylene (HDPE) geomembrane possessing a nominal thickness of 60 mils.
- . An 18-inch layer of compacted clay or soil-bentonite layer having a maximum hydraulic conductivity of 1×10^{-7} cm/sec.
- . A compacted subgrade.

The minimum slopes of the liner shall be 2% on controlling slopes and 0.5% on remaining slopes.

The soil-bentonite or clay shall be placed in lifts not exceeding nine (9) inches and shall be thoroughly compacted within a range of moisture and density that will result in the required impermeability. Each lift of soil-bentonite or clay shall be tested in-place for moisture and density at fifty (50) foot intervals on a grid pattern. Hydraulic conductivity testing shall be performed on undisturbed core samples of the final graded liner. Such samples shall be taken at 200 foot intervals on a grid pattern across the surface of the clay liner.

Whenever a sample fails to meet the required maximum hydraulic conductivity, the section of failure shall be localized, reconstructed and retested. If the clay liner again fails to meet a maximum hydraulic conductivity of 1×10^{-7} cm/sec., the Division of Solid and Hazardous Waste (Division) shall be notified immediately and further construction shall not commence until authorized by the Division. All core sample holes shall be backfilled and recompacted by hand tamping at the proper moisture content to achieve the minimum liner hydraulic conductivity.

Moisture/density tests on the soil-bentonite or clay components of the liner system shall be plotted on the appropriate moisture/density curve with the "acceptable permeability zone (APZ)" displayed. Moisture/density tests falling outside of the APZ shall be considered failed tests and shall be reworked and retested until they pass. A table of the moisture/density test results with pass/fail indications shall be presented in numerical order by lifts. Retest results shall provide an explanation of what was done to cause the failed tests to pass. Both the moisture/density curve with plotted test results and the table of moisture/density data shall be included in any quality control report submitted to this Division.

The geomembrane liner shall be of high quality materials and shall meet the minimum requirements as outlined in the most recent version of the National Sanitation Foundation's publication, " Standard Number 54 Flexible Membrane Liners ". The geomembrane shall be compounded from first quality virgin materials. No regrinded or reprocessed materials containing encapsulated scrim shall be used in the manufacturing of the geomembrane. During field seaming, a destructive seam test sample shall be prepared for every 500 feet (or as otherwise approved by the Division for that particular construction event) of field seam. All samples shall be tested for peel and sheer strength. Seams shall be stronger than the liner.

All test results shall be submitted to this Division along with a New Jersey Licensed Professional Engineer's certification in accordance with Condition A-23 that the liner has been constructed in accordance with this Permit.

2. Leachate Collection/Detection Systems and Disposal

The primary leachate collection system comprising eight-inch diameter perforated PVC pipes will convey the leachate to the eight-inch diameter PVC pipe headers which will transport the collected leachate by gravity to the five low points of the landfill areas. The five pumping systems, constructed within the side slope riser and located, one each, at these low points, will pump the leachate to the pump station using submersible pumps. From these pump stations, the leachate shall be piped to a larger pump station located outside the liner area, and then to an on-site storage tank.

The secondary leachate collection/detection system comprising a geosynthetic leak detection layer or a twelve (12) inch thick sand layer will also be connected to a header system at the southeastern side of the landfill that will transport the leachate to the pump stations similar to the primary leachate collection system as stated above.

Spill prevention measures shall be implemented during conveyance of the leachate. Leachate shall not be stored for a period in excess of thirty (30) days. Leachate shall be removed from the storage tank and hauled off-site for treatment and final disposal in accordance with Department regulations. This interim measure shall continue until construction and operation of an on/off-site leachate treatment system is approved by the Department. The primary leachate collection system shall be equipped with submersible pumps such that they will automatically maintain the head of the leachate below the inverts of the leachate collection pipes. The secondary leachate collection system shall be equipped with controls to detect presence of leachate. If leachate is detected in the secondary sump, a standby (submersible) pump shall be available to convey leachate to forcemain.

The leachate collection system shall be cleaned out annually (or as approved by the Division) to maintain proper flow.

3. Final Cover

The final cover shall consist of the following capping system from top to bottom:

- . A 12-inch layer of vegetation bearing topsoil.
- . 12 inches of a loam material drainage layer with a hydraulic conductivity of 1×10^{-3} cm/sec.
- . A composite drainage net having hydraulic conductivity of 33 cm/sec on slopes less than 7%.
- . A 60 mil Linear Low Density Polyethylene (LLDPE) geomembrane roughened both sides.
- . A 12-inch layer of clean granular soil directly overlying the refuse layer.

The landfill is to be constructed and operated in five phases comprising approximately twenty (20) acres each. Final cover, as defined herein, shall be applied to each phase after 12 to 18 months of the date that waste disposal operations cease in that phase so as to allow the landfill to stabilize adequately. In the interim, the Permittee shall construct a temporary cover system in phased increments which will help control gases and odor; reduce maintenance and leachate generation; promote drainage and minimize erosion while the landfill is going through settlement and subsidence. Phased construction of a cover system shall proceed as landfill cells reach design elevations.

The final cover shall be stabilized by the establishment of vegetative cover in accordance with the Soil Erosion and Sediment Control Plan.

4. Ground and Surface Water Monitoring

The location, sampling and analyses of all ground water monitoring wells shall be in accordance with the approved New Jersey Pollutant Discharge Elimination System (NJPDES) permit for the landfill.

Surface water discharges at the landfill shall be in accordance with the approved New Jersey Pollutant Discharge Elimination System/Discharge to Surface Water (NJPDES/DSW) permit.

5. On-Site Baseline

In accordance with N.J.A.C. 7:26-2A.7(a)2, the on-site baseline consisting of two vertical and horizontal control monuments shall be maintained at the landfill.

6. Landfill Gas Venting and Monitoring

As shown on the approved design, vertical wicks shall be placed between the bales of waste at intervals of 300 feet. The area of wicks will be approximately three feet by three feet and will be filled with two to three inch stone with a perforated six inch PVC pipe in the center of the wick. These wicks will work as a conduit for the gas which will be generated and will also allow the leachate to drain to the leachate collection system on top of the liner. Collection

pipes will be installed at the surface of the landfill to collect the gases rising from the landfill. The collection pipes will be connected to an existing Phase II landfill gas flare system. This interim landfill gas collection system shall be capable of controlling malodorous gas emissions and preventing the migration of landfill gases off-site. Once a section of the landfill reaches approved final elevation and generates sufficient gas, a permanent landfill gas collection system shall be installed. The collected gas shall be flared on-site or used for energy applications. An Air Pollution Control permit shall be obtained from the Department prior to the construction of the landfill gas collection system pursuant to N.J.A.C. 7:27-8.2(a)1.

A methane gas survey shall be performed by ground probing on a quarterly basis around the perimeter of the buffer zone of active landfill area and annually around the entire perimeter of the buffer zone of the sanitary landfill. The survey shall incorporate the onsite structures such as the Shredder Building and Transfer Station/Material Recovery Facility. The results shall be submitted to the Bureau within thirty (30) days of testing. The Permittee shall notify the Bureau within twenty-four (24) hours if and when methane is detected at or above 25% of the lower explosive limit.

7. Landfill Service Capacity

The areal extent of the completed landfill shall be approximately 100 acres. Disposal of waste shall be limited to this area. Final elevations, including final cover, shall not exceed 258 feet above mean sea level.

8. Soil Erosion and Sediment Control

The Permittee shall comply with all requirements of the Soil Erosion and Sediment Control Plan as certified by the Monmouth County Soil Conservation District. All soil erosion and sediment control practices shall be installed in their proper sequence and be regularly maintained.

9. Construction Quality Assurance/Quality Control (QA/QC)

The Quality Assurance/Quality Control Plan as contained in the application and dated February 1994 shall be adhered to during all construction phases. Quality control inspectors shall be at the site during construction to ensure and verify that the design and permit requirements are properly implemented.

A quality assurance inspector approved by the Department shall be at the site during the initial construction phase of the subgrade preparation, liner system and leachate collection system. The inspector shall oversee the remainder of this work on a periodic basis as necessary. The quality assurance inspector shall conduct this work independent of the resident QA/QC team. The scheduled frequency of inspections by the independent quality assurance inspector may be reduced or discontinued by the Department in accordance with N.J.A.C. 7:26-2A.7(a)15.

At least 30 days prior to the start of construction, the quality assurance inspector shall meet with the Department to establish reporting procedures and frequency, in accordance with the

construction schedule. Daily QA/QC reports shall be prepared and maintained in a log book which shall be available at the job site for inspection by the Department. All test results shall be included in the log book.

The resident QA/QC team shall ensure that all Quality Assurance and Quality Control procedures are followed pursuant to Departmental guidelines as stated in the Solid Waste Management regulations, N.J.A.C. 7:26-1 *et seq.*, in the construction of the landfill.

10. Engineering Designs and Documents of Record

The construction and operation of the landfill shall be in accordance with the provisions of N.J.A.C. 7:26-1 *et seq.*, and the following reports and engineering designs. In case of conflict, the later designs shall supersede the earlier engineering designs.

- a. Standard Application Form (CP-1) and Solid Waste Supplement To Standard Application Form, signed on March 2, 1994 by Robert J. Collins (the applicant), Monmouth County Administrator and by applicant's agent Thomas K. Rospos, Principal of Birdsall Engineering, Inc.(Birdsall), New Jersey P.E. License No. 27028.
- b. Engineering Plans sheets 1 through 34 inclusive, dated February 23, 1994, signed and sealed by Thomas K. Rospos, P.E. of Birdsall. The revised design consisting of sheets 1 through 26 and 31 through 34 dated December 28, 1994 and sheets 27 through 30 inclusive dated December 23, 1994, signed and sealed by Thomas K. Rospos.
- c. Landscape Plan for Monmouth County Reclamation Center consisting of 2 sheets dated April 29, 1994, prepared by Birdsall.
- d. Composite Survey Map for Monmouth County Reclamation Center dated July 8, 1994, prepared by Birdsall.
- e. Engineer's Report (Document 1) dated February 1994 , prepared by Birdsall.
- f. Final Environmental and Health Impact Statement (Document 2) and Risk Assessment Report dated February 1994, prepared by Birdsall.
- g. Geotechnical Report comprising the following six volumes:
 - 1) Geotechnical Report for Phase III Expansion (Document 3) dated February 1994, prepared by Birdsall.
 - 2) " Geotechnical Engineering Services, Proposed Phase III Landfill Expansion" dated August 30, 1993, prepared by PMK Group.
 - 3) " Report of Geotechnical and Hydrogeologic Exploration (volume 1) " dated December 1, 1989, prepared by F & P.

- 4) " Report of Geotechnical and Geohydrological Exploration (volume 2) " prepared by F & P.
 - 5) " Report of Geotechnical Exploration, Construction of Replacement Monitoring Wells (volume III)" dated May 23, 1994, prepared by French & Parrello, Associates, P.A. (F & P).
 - 6) " Final Report, Geotechnical Investigation and Foundation Recommendations " dated 21 October, 1988, prepared by Woodward-Clyde Consultants.
- h. Preliminary Operation and Maintenance (O&M) Manual (Document 4) dated February 1994, prepared by Birdsall.
 - i. Quality Assurance and Quality Control Construction Plan (Document 5) dated February 1994, prepared by Birdsall.
 - j. " Calculations for Phase III Expansion ", volumes 1 & 2 (Document 6), dated February 1994, prepared by Birdsall.
 - k. Closure and Post-Closure Plan (Document 8) dated February 1994, prepared by Birdsall.
 - l. The following documents submitted for the design and construction of a Household Hazardous Waste Facility:
 - 1) Engineering Plans entitled " Monmouth County Reclamation Center, Household Hazardous Waste Facility ", sheets 1 through 7, dated August 17, 1993 and revised December 14, 1993, signed and sealed by Thomas K. Rospos, P.E.
 - m. The following documents submitted for the design and construction of a Shredder Facility:
 - 1) Engineering designs prepared by Disco Associates, dated April 1974, signed and sealed by Michael Disco, P.E.
 - 2) Engineering designs prepared by Birdsall Corporation, dated November 30, 1983, signed and sealed by Barry D. Wolk, P.E.
 - n. The Addendum, prepared and submitted by Birdsall, to the Application for a Solid Waste Facility Permit consisting of a letter dated March 8, 1995 from Thomas K. Rospos, P.E. of Birdsall to John A. Castner, Revised Engineering Plans, sheets 1 through 26 and 31 through 34 dated December 28, 1994 and sheets 27 through 30 inclusive dated December 23, 1994, signed and sealed by Thomas K. Rospos, Addendum and Revision to Engineer's Report (Document 1) dated February 1995,

Addendum and Revision to FEHIS (Document 2), Addendum and Revision to Geotechnical Report (Document 3), Addendum and Revision to Preliminary O&M Manual (Document 4), Addendum and Revision to QA/QC Report (Document 5), Addendum and Revision to Calculations for Phase III Expansion Report (Document 6), Part 2 Revised February 1995, Addendum and Revision to Closure and Post-Closure Plan (Document 8), Addendum and Revision to Risk Assessment Document, Technical Specifications for Sanitary Landfill Phase III Closure " dated January 1995.

- o. Letter of June 28, 1995 from Thomas K. Rospos, Birdsall Engineering, to John A. Castner, Division of Solid and Hazardous Waste transmitting the following documents:
 - 1) " Addendum No. 2 to Document No. 8, Closure and Post-Closure " dated June 1995, prepared by Birdsall.
 - 2) " Addendum No. 2 to Document No. 2, Environmental Health Impact Statement" dated June 1995, prepared by Birdsall.
 - 3) Sheet 22 of 34 entitled " Construction Details " revised June 16, 1995, signed and sealed by Thomas K. Rospos, P.E. of Birdsall.
 - 4) A Report entitled " Subsurface Investigation Program, Area I, Proposed Phase III Landfill Expansion, Borough of Tinton Falls, New Jersey " dated June 6, 1995, prepared by the PMK Group.
- p. Transmittal dated August 1, 1995 from Debby DeJong, Birdsall Engineering, Inc., to Mr. Ram Shah, Division of Solid and Hazardous Waste, consisting of a report entitled " Three Dimensional Mass Transport Model, Phase III Landfill, Monmouth County Reclamation Center ".
- q. Correspondence of August 30, 1995 from Richard W. Watson, Birdsall Engineering, Inc., to Mr. Ram Shah, Division of Solid and Hazardous Waste and accompanying information.
- r. Letter of August 30, 1995 from Richard W. Watson, Birdsall Engineering, Inc., to Mr. Ram Shah, Division of Solid and Hazardous Waste, transmitting the revised Help Model Analyses, Landfill Cap Stability Analyses and Revised Engineering Plans, sheets 5,6,8,10,21 and 22 , revised August 22, 1995, signed and sealed by Thomas K. Rospos, P.E. of Birdsall.
- s. Transmittal dated October 5,1995 from Richard W. Watson, Birdsall Engineering, Inc., to Mr. Ram Shah, Division of Solid and Hazardous Waste, transmitting revised engineering plans, sheets 10, 11 and 21, revised October 4, 1995, signed and sealed by Thomas K. Rospos, P.E. of Birdsall.

- t. The following documents submitted for the design and construction of a storage tank:
- 1) A report entitled " Project Description for Landfill Leachate Storage Tank, Monmouth County Reclamation Center, Asbury Avenue, Tinton Falls, NJ " dated July 1995, signed and sealed by Thomas K. Rospos, P.E. License No. 27028, Birdsall Engineering, Inc.
 - 2) A report entitled " Technical Requirements for Installation of Landfill Leachate Storage Tank, Monmouth County Reclamation Center, Asbury Avenue, Tinton Falls, New Jersey " dated July 1995, signed and sealed by Thomas K. Rospos.
 - 3) Engineering Plans, sheets 1 through 11, dated July 27, 1995, signed and sealed by Thomas K. Rospos.

II. OPERATIONS, MAINTENANCE AND MONITORING

1. Final Operation and Maintenance Manual

The Final Operations and Maintenance (O&M) Manual shall contain, in full, all relevant procedures for the operations and maintenance of the landfill. References to other manuals shall not be used in place of a full listing of O & M Manual procedures.

The Final Operations and Maintenance Manual shall be submitted to the Department at least sixty (60) days prior to initiation of landfilling operations in Phase III Landfill.

2. Inspection, Operation and Maintenance Schedules

The following shall be performed on a daily basis:

- a. Record leachate flowmeter reading
- b. Inspect leachate pumping station
- c. Inspect leachate storage tank
- d. Inspect methane gas flares
- e. Police buffer zone and site entrance for litter
- f. Inspect truck scale for debris, ice, damage

The following shall be performed on a weekly basis:

- a. Inspect all environmental control systems
- b. Inspect ground water monitoring wells for damage
- c. Check site lighting

The following shall be performed on a monthly basis:

- a. Inspect leachate collection pipes and cleanout risers
- b. Inspect storm water sedimentation and detention basins

- c. Inspect pump station equipment and force main
- d. Inspect emergency generator

The following shall be performed after storm events:

- a. Inspect sedimentation and detention basins and surface runoff structures
- b. Inspect leachate collection pipes and pump stations
- c. Inspect all environmental control systems
- d. Record precipitation

The following shall be performed on a quarterly basis:

- a. Conduct methane gas survey around perimeter of the buffer zone of active landfill areas
- b. Inspect portable fire extinguishers

The following shall be performed on an annual basis:

- a. Perform topographic survey of landfill
- b. Inspect leachate storage tank for leaks
- c. Conduct methane gas survey around perimeter of the buffer zone of the sanitary landfill

The following shall be performed biennially:

- a. Survey the baseline vertical and horizontal control monuments

In addition to the above, inspection, operation and maintenance of other aspects of the landfill shall be performed, as necessary, in order to meet the terms of this Permit and all applicable regulations.

The Permittee shall record the results of the inspections in a log book which shall be maintained at the sanitary landfill office and be available, at all times, for inspection by the Department. These records shall include the date and time of the inspection, the name of the inspector, a notation of observations and recommendations, and the date and nature of any repairs or other remedial action.

3. Waste Disposal Methods

The working face shall be confined to the smallest practical area, as is consistent with the proper operation of trucks and equipment, in order that the area of waste material exposed during the operating day is minimized. The maximum working face width shall not exceed 150 feet. At no time shall the area of exposed waste be greater than 15,000 square feet. The lift height of a daily cell, including cover soil, shall not exceed 12 feet. Waste shall be compacted in two foot layers.

Bulky waste and any sharp or penetrating objects shall not be disposed of in the first four feet of the initial lift. Also, minimum of eighteen (18) inches of soil shall be placed between the bales and the top of the liner to protect the primary leachate collection system (a geosynthetic drainage layer) on the sideslopes.

4. Cover Requirements

Daily and intermediate cover shall be of the types that can be workable under all weather conditions.

A sufficient quantity of cover material shall be available at all times to ensure proper operation of the landfill. At the end of each day, at least 6 inches of soil or alternative cover material as approved by the Department, as daily cover, shall be placed on areas of the solid waste working face that will be exposed for less than 24 hours. Intermediate cover, which shall consist of at least 12 inches of soil, shall be applied to all surfaces exposed for any period exceeding 24 hours.

5. Surface Water Control

The grade and thickness of cover material on all surfaces of the facility shall be maintained regularly so as to prevent the occurrence of ponding of water anywhere on the active landfill area except in designated storm water control ponds. All provisions of the drainage plans as indicated in the approved engineering design shall be implemented. The channels and drainage structures shall be regularly maintained. Any drainage from the active landfill area shall be such as not to cause siltation.

6. Closure and Post-Closure Plan

The Permittee shall comply with the requirements of N.J.A.C. 7:26-2A.9 for the closure and post-closure care of this facility. Failure to comply with the requirements of any closure plan approval issued from the Department may result in the revocation of this Permit.

7. Summary of Required Submittal

The following information shall be submitted to the Bureau of Landfill, Compost & Recycling Management, Division of Solid and Hazardous Waste:

	<u>Document</u>	<u>Due Date</u>
1)	Perimeter gas monitoring results	quarterly
2)	Leachate monitoring results (quality and quantity)	quarterly
3)	Topographic survey	annually (before May 1)

- 4) Closure and Financial Plan biennially
Two Year Update

(C) TRANSFER STATION/ MATERIALS RECOVERY FACILITY (TS/ MRF)

1. Referenced Engineering Plans and Documents

The construction and operation of the TS/MRF shall be in accordance with the provisions of N.J.A.C. 7:26-1 *et seq.*, the conditions of this Permit, and the submissions specified as stated below.

- a. "Consolidated Permit Application Form (CP#1) Construction and Discharge Related Permit" and "Solid Waste Supplement to Standard Application Form CP#1", dated June 26, 1995.
- b. Environmental and Health Impact Statement for Phase III Expansion Monmouth County Regional Sanitary Landfill and Reclamation Center, Monmouth County, New Jersey, dated February, 1994, prepared by Birdsall Engineering, Inc. Consulting Engineers (Documents 1, 2 and subsequent amendments).
- c. Materials Processing and Recovery Facility, Construction and Operation Agreement between the County of Monmouth, New Jersey and National Ecology Company dated March 30, 1995.
- d. "Solid Waste Facility Permit Application Number 1336001346, Materials Processing and Recovery Facility for Monmouth County Reclamation Center, Monmouth County, New Jersey", dated June, 1995, prepared by HDR Engineering, Inc. Consulting Engineers.
- e. "Preliminary Operations and Maintenance Manual, Monmouth County Reclamation Center, Tinton Falls, New Jersey, Materials Processing and Recovery Facility", dated June, 1995, prepared by National Ecology Company, Operations Contractor.
- f. "Solid Waste Facility Permit Application Number 1336001346 Materials Processing and Recovery Facility for Monmouth County, N.J., Monmouth County Reclamation Center, Amendment No. 1", dated October, 1995, and prepared by HDR Engineering, Inc.
- g. "Traffic Impact Study, Monmouth County Reclamation Center, Materials Processing & Recovery Facility, Monmouth County, N.J." and "Addendum to Traffic Study", dated September 28 and October 19, 1995 respectively, prepared by Abbington Associates, Inc., Freehold, N.J.
- h. The following design plans, prepared by National Ecology Company of Timonium, Maryland,, signed and sealed by Carl L. Canon, P.E., N.J. License No. 28074, on June 29, 1995, with latest revision dates as shown:

- i. Mass Flow Diagrams, Sheet No. MN1X0001, latest revision dated June 19, 1995.
 - ii. Floor Drainage and Fire Hose Reel and Bib Locations, Sheet No. MN1M0012, latest revision dated June 19, 1995.
 - iii. Storage Piles, Sheet No. MN1M0011, latest revision dated June 16, 1995.
 - iv. Storage Piles (Daily and Peak Operations), Sheet No. MN1M0010, latest revision dated June 16, 1995.
 - v. Equipment Elevations, Sheet No. MN1M0008, latest revision dated June 19, 1995.
 - vi. Equipment Elevations, Sheet No. MN1M0006, latest revision dated June 19, 1995.
 - vii. Ductwork Layout, Sheet No. MN1M0005, latest revision dated June 19, 1995.
 - viii. Equipment Elevations, Sheet No. MN1M0003, latest revision dated June 19, 1995.
 - ix. Equipment Elevations, Sheet No. MN1M0002, latest revision dated June 19, 1995.
 - x. Equipment Layout, Sheet No. MN1M0001, latest revision dated June 16, 1995.
 - xi. Site Plan, Sheet No. MN1C0001, latest revision dated June 16, 1995.
- i. The following drawings, prepared by Birdsall Engineering, Inc., signed and sealed by Thomas K. Rospos, P.E., N.J. License No. 27028, on February 22, 1994, with latest revision dates as shown:
 - i. Key Map, Sheet 2 of 34, latest revision dated December 28, 1994.
 - ii. Vicinity Map, Sheet 4 of 34, latest revision dated December 28, 1994.
 - j. The following drawings, prepared by National Ecology Company of Timonium, Maryland, signed and sealed by Albert J. Mellini, P.E., N.J. License No. 24779, on June 21, 1995, with the latest revision dates as shown:
 - i. Building Elevations, Sheet No. 6MNN1A001, latest revision dated April 7, 1995.

- ii. Administration Area, 3rd Floor and Viewing Gallery, Sheet No. MN1A0103, dated June 1, 1995.
- iii. Administration Area, 1st and 2nd Floor Plans, Sheet No. MN1A0102, dated June 1, 1995.
- iv. Proposed Site Grading Plan, Sheet No. MN1C0010, latest revision dated June 21, 1995.
- v. Soil Erosion Control Plan, Sheet No. MN1C0013, latest revision dated June 15, 1995.
- vi. Soil Erosion Control Details, Sheet No. MN1C0014, latest revision dated June 16, 1995.
- vii. Methane Piping Layout, Sheet No. MN1C0015, latest revision dated June 21, 1995.
- viii. Proposed Landscaping Plan, Sheet No. MN1L0100, latest revision dated June 21, 1995.

In case of conflict, the most recent revisions and supplemental information approved by the Department shall prevail over prior submittals and designs, and the conditions of this Permit shall supersede those of the engineering design report, environmental and health impact statement, and the TS/MRF's operation and maintenance manual.

2. Recyclables Inspection Plan

The Permittee shall revise the Recyclables Inspection Plan in order to be consistent with the Monmouth County Health Department Solid Waste Enforcement Team (SWET) Standard Operating Procedures. As provided, the SWET will perform the inspections and will implement the procedures to follow whenever a hauler delivers waste loads containing excessive amounts of recyclables designated by the Monmouth County District Solid Waste Management Plan to be source separated. The revised recyclables inspection plan shall be incorporated in the Final Operation and Maintenance Manual which shall be kept at the TS/MRF at all times.

The Division of Solid and Hazardous Waste reserves the right to revise (as necessary) the above recyclable inspection plan.

3. TS/MRF Pre-Construction Requirement

Prior to initiating any site work for TS/MRF construction, the Permittee shall comply with the following:

- a. Obtain necessary Permit(s) to Construct from the Department of Community Affairs or

its authorized agent as set forth at N.J.A.C. 5:23. One copy of the final design and documentation of the approval shall be forwarded to the Bureau of Resource Recovery and Transfer Facilities.

- b. Apply and obtain, if necessary, a Soil Erosion and Sediment Control Plan Approval for the TS/MRF from the Freehold Soil Conservation District. One copy of the Soil Erosion and Sediment Control Plan of record and documentation of its approval shall be forwarded to the Bureau of Resource Recovery and Transfer Facilities.
- c. Apply and obtain a Treatment Works Approval (TWA) from the Division of Water Quality, Bureau of Construction and Connection Permits, if required pursuant to N.J.A.C. 7:14A-22 *et seq.* Submit a copy of the TWA permit or a copy of the determination of non-jurisdiction from the Bureau of Construction and Connection Permits to the Bureau of Resource Recovery and Transfer Facilities.
- d. Any on-site fuel and/or wastewater storage tank shall be registered with the Division of Industrial Site Evaluation, Bureau of Underground Storage Tanks pursuant to N.J.S.A. 58:10A-21 *et seq.*
- e. Apply for a Stormwater Permit for the TS/MRF from the Bureau of Stormwater Permitting. A copy of such documentation shall be submitted to the Bureau of Resource Recovery and Transfer Facilities.
- f. Apply, if necessary, for a New Jersey Pollution Discharge to Surface Water (NJPDES/DSW) permit with the Bureau of Standard Permitting, Division of Water Quality.

4. TS/MRF Construction Phase

During the TS/MRF construction phase the Permittee shall implement the following procedures in order to minimize vehicles and equipment noise, dust generation and construction vehicles traffic impacts:

- a. Muffler systems shall be maintained on all heavy construction equipment.
- b. Unnecessary idling of construction equipment shall be prohibited;
- c. Only noise attenuated air compressors shall be utilized;
- d. All major noise producing construction activities and all construction activities occurring near the TS/MRF perimeter shall be confined to the working hours of 7:00 A.M. to 10:00 P.M.;
- e. Pneumatic tools shall be required to have discharge mufflers;
- f. Vehicles transporting loose or fine-aggregate materials shall be covered and loading

and unloading operations shall be controlled to minimize dust generation;

- g. Vehicle speed on-site shall be controlled and on-site roadways shall be maintained. A water wagon shall be available on-site at all times to control moisture content and minimize dust generation;
- h. Open storage areas containing fine or unbound material shall be covered or watered to minimize dust generation;
- i. The tracking or other means of transporting dirt/dust onto paved public roads shall be controlled and the Permittee shall be responsible for prompt cleanup of any such accumulation;
- j. All solid waste generated by site preparation activities and by TS/MRF construction shall be handled, stored and disposed of in accordance with the Department's rules and regulations, those of the local Board of Health and in conformity with the approved Monmouth County District Solid Waste Management Plan;
- k. Access and egress to the TS/MRF site by construction vehicles shall be via routes approved for use by refuse vehicles, and not through residential areas; and
- l. In the event ground water is encountered during construction activities, all related excavation activities shall cease and the Department shall be notified immediately. Should it be deemed necessary to perform dewatering activities on site, the Permittee shall submit a plan for sampling, analysis and disposal to the Department for approval.

5. Operations and Maintenance Manual

The final Operations and Maintenance (O&M) manual shall be submitted to the Department for approval ninety (90) days prior to the Scheduled Acceptance Date as identified within the contract document listed in Condition C-1c. The O&M Manual shall be prepared as a separate and fully self-contained document which includes all relevant narratives, listings, schedules, sample forms, etc.; which is not dependent upon other documents for completeness; and which is adequate for use alone for training and reference. It shall be maintained and available for use at the TS/MRF at all times. Subsequent changes to the approved O&M Manual proposed by the Permittee shall not be implemented until approved by the Department.

The final O&M Manual shall include the following sections:

- a. A description of the TS/MRF operation, including
 - (1) A statement of the days and hours for receiving waste, for processing waste and recovering recyclable materials, and for transporting (transferring) recovered materials and waste residues from the TS/MRF;
 - (2) A listing and brief description of equipment items of the following types:

materials handling, processing, monitoring and control, safety, emergency, security, and structural. As applicable, a description shall include the item's common name, manufacturer's or trade name (if different), manufacturer, model number, capacity, statement of function, and brief description of how the item is operated;

- (3) Brief summary narratives that describe the following:
 - (a) The overall operations of the TS/MRF.
 - (b) All monitoring and control functions which are part of the TS/MRF operations.
 - (c) All security functions (including alarms and communications) which are part of the TS/MRF operations.
 - (d) Measures for controlling on-site litter and debris and preventing wind-blown dust and other materials from leaving the site.
 - (e) Measures for preventing and detecting fires, and equipment and procedures for extinguishing fires.
 - (f) Measures for controlling arthropods and rodents.
 - (g) Measures for controlling noise generation.
 - (h) Procedures for inspecting incoming loads of solid waste and preventing the receipt of prohibited waste types.
 - (i) Procedures for removing small quantities of prohibited waste types from an incoming load and storing them temporarily in a secure area pending Department instructions for disposal, or for storing entire loads of prohibited waste types.
 - (j) Measures to handle unusual peak loading which may exceed the TS/MRF's design capacity.
 - (k) Measures to handle incoming waste flow during periods of emergencies, equipment breakdown, or TS/MRF shutdown.
 - (l) Measures to control on-site traffic.
- b. An inspection plan which shall include inspection schedules that will ensure maximum TS/MRF availability and compliance with this Permit. The frequencies of inspections shall be defined based on manufacturers' recommendations and engineering judgement regarding likely equipment wear, deterioration, or malfunction. Schedules for

inspecting materials handling, processing, monitoring and control, safety, emergency, security, and structural equipment shall be included.

- c. A maintenance plan, which includes schedules for preventative maintenance activities per manufacturers' recommendations, anticipated repairs or major equipment replacement; an analysis of spare parts inventory needs; maintenance contracts with outside vendors; and contracts with equipment dealers to supply standby or emergency equipment.
- d. A TS/MRF safety plan which describes the operating procedures to be followed to protect TS/MRF personnel and other persons from injury. The plan shall demonstrate compliance with the occupational safety and health standards for general industry, 29 CFR 1900 to 1910. The plan shall also implement industrial safety standards such as the latest amendments of ASME B20.1-1990 for conveyors and ANSI Z244.1-1982 regarding electrical lockout.
- e. An emergency contingency plan which delineates procedures for responding to fire, explosions, or sudden or non-sudden release of harmful substances including hazardous wastes to the air, soil, surface water or ground water. The contingency plan shall contain a description of the actions TS/MRF personnel shall take in the event of various emergency situations, a description of arrangements made with the Department and local police and fire departments which allow for immediate entry into the TS/MRF to respond to an emergency situation, and a list of names, addresses and telephone numbers (office and home) of all persons qualified to act as an emergency coordinator for the TS/MRF. The list shall be kept up to date. Where more than one person is listed, one shall be named as a primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.

Copies of the contingency plan shall be submitted separately (that is, without the balance of the O&M Manual) to the local police and fire departments, the local and county health departments, and other applicable offices of emergency management.

- f. A TS/MRF staffing plan which includes the job title and job description for each position at the TS/MRF. The descriptions shall include duties and performance standards, and the requisite skills, education and other qualifications required for each position.
- g. A staff training plan which defines the types and amounts of both initial and follow-up training to be provided to the TS/MRF personnel. The plan shall include instruction in the operation, inspection, and maintenance of the TS/MRF equipment, machinery, or systems which teaches the personnel to perform their duties in a manner that ensures the TS/MRF's compliance with the requirements of N.J.A.C. 7:26-1. et seq. and the conditions of all Departmental permits issued to the TS/MRF.

The plan shall ensure that TS/MRF personnel are able to respond effectively to any emergency situation which may arise. It shall provide instruction on the use of safety

equipment and the procedures to be followed during planned or unplanned shutdown of operations. It shall also include the inspection of incoming waste loads for the identification of suspected unauthorized wastes and the proper handling of such wastes. It shall also include fire training specifically applicable to this type of facility.

- h. A recyclables inspection plan developed in accordance with Condition A-3 and C-2 of this Permit.

Any subsequent changes to be made to the approved O&M manual by the Permittee shall not be implemented until approved by the Department.

6. Waste Acceptance and Processing Rates

At no time shall recyclables or wastes be delivered to the TS/MRF at a rate exceeding the TS/MRF's capacity to store and process same. Deposition of waste is allowed in only those areas within the building specifically identified in the design for such purposes. Under no circumstances shall waste be deposited beyond the confines of the building.

The TS/MRF is permitted to accept, process or transfer recyclables and/or waste at a rate of no more than 3,500 tons per day when the improvements at the Route 33/Shafto Rd intersection are in place (see Condition A-5). Absent the referenced improvements, the TS/MRF is only permitted to accept, process or transfer recyclables and/or waste up to 2,700 tons per day.

7. Waste Retention Time

Solid waste, processed or unprocessed, may be allowed to remain within the building overnight, provided that the air pollution control system is in operation before the TS/MRF starts accepting waste. The Department reserves the right to revise this permit condition at any time it deemed necessary.

8. Materials Recovery Operations

The materials recovery operations at the TS/MRF shall meet the following criteria:

- a. In accordance with the solid waste facility application listed at Condition 4 herein, the Permittee shall recover from daily receipts and store within the TS/MRF as appropriate all types of Class A and/or Class B recyclable materials. The Permittee may store these materials on site for ultimate transportation to a recycling center as defined in N.J.S.A. 13:1E-99.13, N.J.A.C. 7:26-1.4 or to final market destination. All other solid waste residue must be cleared from the TS/MRF daily, as per Condition C-7 of this Permit.
- b. All processing and storage of solid waste and all other related waste processing activities shall be performed within the confines of the TS/MRF as depicted on the approved engineering design drawings and as explained in the documents submitted in

support of this Permit referenced in Condition C-1.

- c. The TS/MRF shall maintain contracts or letters of agreement with approved recycling centers or final market destinations, where required, for the disposition of all recovered materials. The Department shall be notified by the Permittee within one week of changes in the status of existing contracts or of the addition of any new contracts for the disposition of recoverable materials. Such notice shall include documentation of the changed status or a copy of the new contract.
- d. The Department reserves the right to amend this Permit to further restrict operations, impose monitoring requirements, prohibit specific waste types or impose additional time limitations on the storage of waste or recovered materials.

9. Maintenance and Repair

Through effective inspection, planned maintenance, and repair and parts replacement programs, the TS/MRF systems and related appurtenances shall, at all times, be kept in proper operating order. As part of this program, the Permittee shall maintain an inventory of spare parts and replacement equipment, or maintenance contracts shall be established with companies available for leasing backup equipment to ensure continued operation of the TS/MRF.

The results of all inspections shall be recorded in a bound inspection log. These records shall be maintained at the TS/MRF for a minimum of five years from the date of inspection.

These records shall include the date and time of the inspection, the name of the inspector, a notation of observations, and recommendations and the date and nature of any repairs or other remedial action taken. These records shall be made available for inspection by Departmental personnel or their designated representatives.

10. Wastewater and Stormwater Disposal

The concrete tipping floor shall be graded in such a way to the sump drains to ensure proper directionalization and containment of washdown water. All wastewater resulting from washdown of the tipping floor, shall be directed via the sump drains into a 6000 gallon steel holding tank. Wastewater within the holding tank shall be tested to verify compliance with the Township of Neptune Sewage Authority (TNSA) System. A normally closed valve shall be located between the tank and the sanitary sewer to provide control of wastewater held in the tank. No washwater shall be permitted to enter the stormwater drainage system.

All stormwater runoff from this TS/MRF shall comply with the NJPDES General Permit No. NJ0088323 issued to the TS/MRF.

11. Emergency Provisions for Equipment Breakdown or Power Failure

In the event of a TS/MRF outage or other significant malfunction, which results in the TS/MRF's inability to process waste at a rate equal to or exceeding the rate of incoming waste,

the Permittee shall immediately report such incidents to the Division of Solid and Hazardous Waste at (609) 984-6666.

At no time shall the capacity of the tipping area be exceeded nor shall vehicles be permitted to queue other than as designated in the documents that are listed in Condition C-1 of this Permit.

12. Final Disposal

All waste ID #13 residue from the TS/MRF shall be transferred to the Monmouth County Reclamation Center (MCRC) shredding facility for size reduction prior to landfilling at the Phase III landfill.

All waste ID #10 residue from the TS/MRF shall be baled prior to landfilling at the Phase III landfill.

Since the on-site landfill will accept only baled waste ID #10, the Permittee shall maintain contract(s) or written agreement(s) with alternate disposal site(s) to be utilized as Disposal for Bypass and Excess Acceptable Waste if such need arises pursuant to the Construction and Operation Agreement document referenced in Condition C-1c. The Permittee shall contact the Division of Solid and Hazardous Waste at (609) 584-6666 prior to shipping waste to the alternate disposal sites.

Failure to comply with any or all limitations heretofore mentioned will result in the Department seeking relief under the Solid Waste Management Act N.J.S.A. 13:1E-1 *et seq.* Specifically, each day of failure to so comply shall constitute a separate violation on the basis of which a penalty shall be assessed and may result in loss of operating authority, pursuant to N.J.S.A. 13:1E-12.

The issuance of this Permit and the conditions of operation identified herein shall not be interpreted as relieving the Permittee of his responsibility to secure and maintain all other applicable federal, state, and local permits or similar forms of authorization relating to the construction and operation of this facility.

RS/rs

FILE: PERMIT.MON