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NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NEW JERSEY ADMINISTRATIVE CODE  
TITLE 7  
CHAPTER 26  
SUBCHAPTER 2B

ADDITIONAL, SPECIFIC DISPOSAL REGULATIONS FOR THERMAL DESTRUCTION  
FACILITIES, TRANSFER STATIONS, MATERIALS RECOVERY FACILITIES, CO-  
COMPOSTING AND SOLID WASTE COMPOSTING FACILITIES

Statutory Authority: N.J.S.A. 13:1B-3, 13:1D-1 et seq., 13:1D-125 et seq., 13:1E-1 et  
seq., 13:1E-9, 26:2C-1 et seq., 47:1A-1 et seq., 58:10-23.11, and 58:10A-1 et seq.

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#### 7:26-2B.1 Scope and applicability

(a) This subchapter shall constitute the rules of the Department governing the design, construction, operation, maintenance, closure and post-closure care of the following types of disposal facilities:

1. Thermal destruction facilities which dispose of non-hazardous solid waste;
2. Thermal destruction facilities which dispose of non-hazardous solid waste and which incorporate energy recovery;
3. Solid waste transfer station facilities; and
4. Solid waste materials recovery facilities; and
5. Solid waste co-composting and composting facilities.

(b) The requirements of this subchapter are in addition to the general requirements found at N.J.A.C. 7:26-2.10 and 2.11.

(c) This subchapter shall apply to the following facilities:

1. All proposed solid waste facilities of the types identified in (a) above shall be designed, constructed, operated and maintained in accordance with the requirements of this subchapter; and
2. Any existing solid waste facilities of the types identified in (a) above determined to be operating in an environmentally unsound manner.

(d) This subchapter does not apply to hazardous waste facilities. See N.J.A.C. 7:26G.

#### 7:26-2B.2 Construction

These rules shall be liberally construed to permit the Department to discharge its statutory functions.

#### 7:26-2B.3 Purpose

(a) This subchapter is promulgated for the following purpose:

1. To establish additional engineering design submission requirements for thermal

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destruction facilities, transfer stations, materials recovery facilities, and solid waste composting and co-composting facilities to ensure that adverse impacts are minimized and pollution of the environment is prevented; and

2. To establish operational requirements to ensure the proper operation of thermal destruction facilities to minimize adverse impacts and prevent pollution of the environment.

#### 7:26-2B.4 Additional engineering design submission requirements for thermal destruction facilities

(a) The following engineering design submittal requirements are in addition to the submittal requirements of N.J.A.C. 7:26-2.10:

1. The rated capacity of the facility, in both tons per day and tons per hour, and the maximum gross heat release rating for each incinerator/boiler;

2. The protocol to be established that will allow for the measurement of the rate of waste charging to the individual combustion unit(s), averaged for each over a discrete 24-hour period. In the case where the thermal destruction facility recovers energy for use by means of steam production, the boiler system and its auxiliaries shall be used as a calorimeter, and the following shall be factored into the method of determination:

i. Direct measurement of salient variables shall be employed where such means are available;

ii. Adjustments shall be made to account for variability in unit thermal efficiency as equipment is cycled for maintenance and as a result of equipment aging; and

iii. Seasonal variability of the higher heating value (HHV) of the waste subject to combustion shall be derived analytically using standard laboratory methods. At a minimum, the method chosen shall provide for quarterly reassessments of the HHV of the waste subject to combustion. Waste samples collected for HHV determination shall be representative of the nature and type of waste to be received at the facility for processing. The protocol shall also provide for a means of cross referencing the accuracy of the method of determination chosen by employing the use of the facility waste delivery weight scale records in a comparative analysis;

3. Projected average and peak daily deliveries of waste to the facility and charging rates to the combustion unit(s) (given in tons and estimated volumes). Quantify seasonal trends when anticipated;

4. The designation of normal loading, unloading and storage areas to be employed in the facility's handling of incoming wastes to be processed and residual materials generated by facility operations, including capacities in cubic yards and tons. Describe the time such areas can be practically used, based on average and peak facility operating conditions. At no time shall

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waste be delivered to the facility at a rate exceeding the facility's capacity to sort and process such waste. Under no circumstances shall waste be deposited beyond the confines of the refuse pit, except for the purpose of conducting incoming waste load inspections and holding unauthorized materials, or storing unprocessable materials such as oversize bulky waste;

5. The designation of emergency unloading, loading, staging, storage or other disposal capabilities to be used for the removal of previously stored waste should the facility be unable to process waste by means of combustion. Identify the plans for waste transfer from the facility, and identify the alternative disposal facility to be used under such conditions;

6. The expected daily quantity of bottom ash, fly ash (air pollution control train residues), post combustion recovered metals and other waste residue generated by facility operations, referenced by weight and projected volumes;

7. The proposed ultimate disposal location for all facility generated waste residues including, but not limited to, ash residues and by-pass materials, by-products resulting from air pollution control devices, and the proposed alternate disposal locations for any unauthorized waste types, which may have been unknowingly accepted. The schedule for securing contracts for the disposal of these waste types at the designated locations shall be provided;

8. A descriptive statement of any materials recycling or reclamation activities to be operated in conjunction with the facility, either on the incoming solid waste or the outgoing residue;

9. A descriptive statement and detailed specification of all process equipment, pollution control systems, instrumentation and monitoring mechanisms. Schematic diagrams shall be provided, where applicable. Equipment specifications, including information pertaining to the make, model and manufacturer, if available, and to the related processing equipment capacity, reliability and efficiency shall be submitted. Information on individual unit synchronization with upstream and downstream equipment shall also be submitted;

10. Profile views of all building structures, enclosures and exterior equipment appurtenances showing dimensions. Plan views showing setbacks, side and rear distances between the proposed structure and other existing or proposed structures, roadways, parking areas and site boundaries;

11. A descriptive statement and detailed specification of the proposed on-site and off-site transportation system intended to service employee vehicles, solid waste vehicles transporting waste to the facility for processing, and other vehicles removing reclaimed materials and/or process residues from the facility. The number, type, capacity, and frequency of these vehicles shall be specified. On-site parking, access and exit points, and the mechanisms or features which will be employed to provide for an even flow of traffic into, out of, and within the site, shall be identified;

12. Interior floor plans showing the layout, profile view and dimensions of the processing lines, interior unloading, sorting, storage and loading areas as well as other functional

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areas such as office space and employee's facilities shall be submitted;

13. A plan identifying, locating and describing utilities which will service the facility including, but not limited to, the storm water drainage system, sanitary sewer system, water supply system and energy system. Profiles on utility lines including horizontal and vertical dimensions, as well as grades, shall be provided. Existing pipeline carrying capacity and percent of that capacity being currently utilized under average and peak use conditions, shall be identified. Interface of the proposed facility with the existing utility systems and the specifications on materials to be used for constructing new systems or extending existing systems shall be detailed;

14. A waste supply analysis program characterizing the quantity and composition of the solid waste in the service area shall be submitted. The waste characterization and weight study shall be based on the most recent published composition and weight data made available through the designated department, unit or committee responsible for the supervision and implementation of the applicable District Solid Waste Management Plan as set forth at N.J.S.A. 13:1E-21b(1). In the absence of available data concerning composition and weight of the waste supply, the Department may require the applicant to perform a waste supply analysis. Should the proposed facility serve more than one district, each district's published composition and weighing study shall be consulted and appropriately factored into the database to be submitted. The effect of existing or future source separation programs on the supply of solid waste within the service area shall be described and quantified. Data to be submitted shall include:

i. The composition data for the non-combustible solid waste, indicating percent by weight and percent by volume, generated within the service area shall be defined within the following framework:

- (1) Aluminum;
- (2) Ferrous metals;
- (3) Other non-ferrous metals;
- (4) Glass;
- (5) Ceramics and fines; and
- (6) Oversize bulky items.

ii. The composition data for combustible solid waste, indicating percent by weight and percent by volume, generated within the service area shall be defined for the following:

- (1) Newspaper;
- (2) Corrugated paper;
- (3) Other paper products;
- (4) Plastics;
- (5) Wood;
- (6) Yard wastes;
- (7) Food wastes; and
- (8) Textiles, rubber, leather and other combustibles.

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iii. The composition data for the proximate analysis of the solid waste, indicating percent by weight, generated within the service area shall be defined for the following:

- (1) Total Moisture;
- (2) Ash (include percent by volume);
- (3) Volatiles;
- (4) Fixed Carbon; and
- (5) Heating Value (Btu/lb. on an as received and moisture free basis).

iv. The composition data for the ultimate analysis of the solid waste, indicating percent by weight, generated within the service area shall be defined for the following:

- (1) Ash;
- (2) Carbon;
- (3) Chlorine;
- (4) Hydrogen;
- (5) Nitrogen;
- (6) Oxygen;
- (7) Sulfur; and
- (8) Heavy metals, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc.

v. The quantity data for the solid waste generated within the service area shall be defined within the following framework:

- (1) Quantity of waste types by geographic points (that is, municipality of origin); and
- (2) Weight, volume and corresponding load density characteristics expressed in terms of daily, average, peak and minimum flow to the facility.

15. A detailed analysis of the materials and energy balance for the proposed facility shall be performed that focuses on the key operational components of the system and its related subsystems. The analysis shall account for every handling and processing step starting with waste delivery scheduling and ending with product and residue removal from the site. Quantification and qualification of sidestream pollutants shall be accounted for in the analysis. Indicate how the facility design will provide redundant features or contingencies in the process line including standard emergency operating conditions. Indicate adjustments available within the system that allow for modifying recovery and processing rates based on the anticipated variability in the solid waste stream;

i. The materials balance for the proposed facility shall include, but not be limited to, the following:

- (1) A description of the maximum designed processing capacity for each piece of equipment on the processing line, including auxiliary equipment in

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tons per day;

(2) A description of the anticipated materials recovery rates, if applicable, in tons per day for each individual equipment unit as well as the anticipated loadings to be made to that particular unit under anticipated peak and average loading conditions; and

(3) A solid waste composition component accounting for combustible and non-combustible materials in tons per day at each processing point along the system line, including materials intentionally recovered as well as entrained contaminants, balanced against values for those materials passing through the unit unaffected by the actions of that unit. Provide a unit recovery efficiency value based on incoming solid waste component concentrations.

ii. The energy balance for the proposed facility shall account for conversion efficiencies and losses that occur throughout the process, including losses incurred by transmission to markets, if applicable. Variations in energy production shall be enumerated in reference to fluctuations in the quality and quantity of incoming solid waste. The energy produced by the facility shall be balanced against the energy consumed by the facility in recovering products from the solid waste stream. Describe how the proposed energy production will meet market demands. Identify instances where energy production rates will exceed secured market demands and contingencies for energy use, if any, under these conditions.

16. A draft facility staffing plan to be developed as part of the final O and M manual containing the following:

i. The job title for each anticipated position at the facility;

ii. A written job description for each anticipated position, including duties and performance standards. The description shall define the anticipated requisite skills, education, and other qualifications deemed necessary for employees assigned to each position; and

iii. A statement of the staffing provided for each operating shift, including the job titles and number of employees for each title, and for each shift;

17. An outline of the training plan to be developed as part of the final Operations and Maintenance manual, which includes the type and amount of both the initial and annual follow up training to be provided to facility personnel;

18. An outline of the emergency contingency plan to be developed as part of the final Operations and Maintenance manual which delineates procedures for responding to fire, explosions or any unplanned sudden or non-sudden releases of harmful constituents to the air, soil, or surface or ground water shall be submitted to the local police and fire departments, and to the local and county health departments or other offices of emergency management. The

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contingency plan shall contain:

i. A description of the actions facility personnel shall take in the event of various emergency situations;

ii. A description of arrangements made with the Department and local police and fire departments which will allow for immediate entry into the facility by their authorized representatives should the need arise, such as in the case of response personnel responding to an emergency situation; and

iii. A list of names, addresses and phone numbers (office and home), if known at the time of submission of the engineering design, of all persons qualified to act as an emergency coordinator for the facility. The final list of names, addresses and phone numbers of such persons shall be submitted as part of the final O and M manual. This list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and the others shall be listed in the order in which they will assume responsibility as alternates.

19. A community relations plan for facilities with a design capacity of 500 tons per day or greater identifying the steps that the owner and/or operator will take to transfer information and solicit input from the community in which the facility is located shall be submitted to the Department. The community relations plan should contain the opportunities and procedure in (a)19i through iii below. The Department shall approve a community relations plan different from that outlined above, provided the plan will inform the public, seek public input and address local concerns.

i. An opportunity for two open meetings with local officials, or their representatives, and the general public of the district affected by the proposed facility prior to and during facility construction. The purpose of such meetings will be to inform the community of the nature of operations proposed for the facility; including the progress of construction and projected initial tipping fees;

ii. An opportunity for an annual open meeting with the local officials, or their representatives, and the general public of the district where the facility is located subsequent to the initial startup of operations. The purpose of these meetings is to allow public input and to provide a forum for exchanging ideas; and

iii. A notification procedure, whereby the public is provided a report of findings in the case of an emergency incident at the facility.

(b) Thermal destruction facility engineering design requirements are as follows:

1. The combustion chambers and ancillary support equipment shall be designed with the capability of handling and effectively disposing of those wastes authorized for receipt at the proposed facility, notwithstanding the expected normal fluctuations in quantity, moisture content, heat release value, and chemical makeup of those wastes;



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2. The waste loading system servicing the combustion chamber(s) shall be designed and equipped in such a manner as to minimize the potential for backfire into the feed hopper. To this end, automated waste loading systems shall be gas tight when operating the forward ram stroke portion of the charging cycle;

3. Combustion chamber interior walls shall be designed to withstand excess corrosion and wear generated by high temperatures and the oxidative-reductive atmosphere;

4. To the maximum extent practicable, except where batch feed or fluidized bed systems are utilized, the primary combustion chamber shall be designed to provide for a positive means of transporting waste into the chamber, through the chamber and to an eventual ash discharge point down line. A conventional ram loading device is not considered an internal transfer mechanism in itself;

5. A vessel shall be designed to quench or cool all siftings and bottom ash that remain after the completion of the primary chamber combustion process. The vessel shall be designed to handle the maximum potential ash volumes that could be generated when the combustion unit is operating at a maximum design throughput capacity. The quench vessel shall be designed to maintain a water level of sufficient height to effectively prevent the infiltration of exterior air into the combustion chamber, while maintaining suitable freeboard to prevent spillage. Quenched ash shall be drained of excess water prior to storage for ultimate disposal;

6. The design of the conveyance systems handling the residue streams shall control fugitive dust by means of an enclosure to protect against direct or indirect human contact with the residue under normal operating conditions;

7. The applicant shall submit documentation that verifies that the facility stack(s) are designed in conformance with the Air Pollution Control regulations, N.J.A.C. 7:27, the New Jersey Uniform Construction Code, N.J.A.C. 5:23, and the Federal Aviation Administration's limitations relating to infringement to navigable air space. The applicant shall identify the safety lighting option(s) that will be used, or are being considered, to service the stack(s);

8. The boilers employed for the purpose of recovering heat energy shall be equipped with a boiler tube wall cleaning system designed to periodically remove excess accumulations of surface deposits;

9. The steam condenser system servicing a boiler shall be designed with the capability to condense the maximum design output of the boiler without any energy extraction from the process, for the most critical weather conditions of the summer season affecting the ability of the system to reject heat energy to the atmosphere (facilities utilizing the indirect air cooled condensing technology); or in the case where an adjacent water body is to be used as a sink for rejected heat energy, the highest annual water temperature and lowest flow conditions anticipated. The Department will consider reasonable alternatives to this 100 percent steam condensing capability requirement, provided such alternatives are environmentally sound and will maximize facility availability;

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10. The feedwater system servicing a boiler shall be designed with the capability of delivering 100 percent of the make-up water requirement of the boiler. The Department will consider reasonable alternatives to this requirement, provided such alternatives are environmentally sound and will maximize facility availability;

11. Facilities shall be designed and constructed in such a manner as to promote an aesthetically pleasing facade in keeping with the architectural character of the area surrounding the site. Facility equipment, including, but not limited to, fans, emission control devices, tanks, storage containers, conveyors' piping and similar equipment shall be housed within the confines of a building structure or shall be buffered in such a manner as to reduce potential negative visual impacts offsite;

12. Facilities shall be designed with sufficient internal storage areas for unprocessed incoming solid waste, facility process waste residues and effluents, and recovered materials, if applicable. The design shall allow for, at a minimum, three days of storage at maximum anticipated loading rates;

13. Facilities shall be designed and equipped with appropriate control mechanisms to minimize, contain and allow for the cleanup of accidental spills or releases of reagents, fuels, lubricants or other materials used in the operation or maintenance of the facility as well as any residues generated by facility operations;

14. Facility waste storage areas shall be designed with the capability of maintaining interior pressure below that of the exterior atmosphere to prevent the migration of odors and dust outside the confines of the waste receiving and storage building. Air drawn off as a result of maintaining negative pressure shall be directed to the combustion chamber. Such control mechanisms shall be designed to effectively operate during all periods when wastes are being received or are in storage at the facility;

15. All facilities, their related subsystems and appurtenances, including all vehicles while on-site, shall be designed, positioned and buffered in such a manner that the sound levels generated by their operation shall not exceed those limits established pursuant to the Noise Control regulations, N.J.A.C. 7:29;

16. 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 facility in such a manner so 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;

17. All facilities shall be designed in a manner that promotes orderly vehicular movement on-site and prevents traffic backups and related traffic hazards on access roads servicing the facility site. The on-site roadway design configuration and layout shall provide sufficient roadway for unobstructed vehicular passage, with parking areas, maneuvering space in the loading and unloading areas, and traffic control measures (that is, lane delineations, signals,

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signs and barriers), in order to achieve this goal. All on-site roadways used by solid waste vehicles shall be constructed and surfaced in accordance with standards for heavy truck usage;

18. Off-site solid waste vehicle routes for the conveyance of solid waste to, and residues from, the facility shall be defined and delineated in a manner which will minimize impacts on surrounding residential development or similar sensitive receptors. The truck traffic to and from the proposed facility shall not result in an unacceptable decrease in the existing level of service, as described and defined in the New Jersey Department of Transportation Highway Access Management Code (N.J.A.C. 16:47), at major intersections located along the designated truck routes;

19. Facilities shall be designed with perimeter security fencing and gate controls to prevent unauthorized access to the site and to control the offsite escape of litter. Metallic chain link fencing, or its equivalent, extending to a height of seven feet shall be the minimum design standard;

20. Facility layout design shall conform to the configuration of the site. A minimum 100 foot buffer and setback distance shall be provided for between all main building enclosures and the facility's property line. The Department may allow a reduction in the setback limit if the applicant satisfactorily demonstrates that such a reduction will not pose an adverse impact on the adjacent land use activities;

21. Facilities shall be designed with alarm and fire protection systems capable of detecting, controlling and extinguishing fires that may occur at the facility;

22. The interior layout design for all facilities shall provide for system installations that maximize accessibility for repairs, maintenance and ease of cleaning, while affording employee safety;

23. All facilities shall be designed and constructed in full conformance with the specifications and requirements of the Uniform Construction Code, N.J.A.C. 5:23;

24. All tipping floors, sorting pads, waste storage areas, bunkers and pits shall be constructed of concrete or other similar quality material that will withstand heavy vehicle usage. Floor drains shall be provided in all such areas and surfaces shall be appropriately graded to facilitate washdown operations. Floor drains shall be designed to discharge wastewater into a collection and treatment system approved by the Department. In those cases where waste or residue storage pits are to be utilized, the base and sidewalls shall be sufficiently waterproofed to prevent ground water intrusion. Tipping floors shall be designed with suitable wheel stops to prevent delivery vehicles overdriving the pit edge;

25. Redundant features or other aspects of system layout shall be incorporated into the facility design to maximize online availability for the receipt and processing of that quantity of waste directed to the facility. Mechanical components shall be constructed of materials that will withstand the rigors of facility operation and shall have a rated handling capacity that prevents backups and blockages within the related system. Replacement equipment and parts for

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equipment which is subject to excess wear or frequent breakdown due to the nature of operation, shall be stored onsite in order to provide expedient repair. In addition, an adequately sized storage area for replacement equipment and equipment parts shall be incorporated into the design;

26. Where feasible, the facility subsystems shall be equipped with automatic process controls which contain the necessary instrumentation and related feedback mechanisms to ensure that process operational parameters are being met. Automated systems shall be equipped with manual override capabilities. Instrumentation displays and related control mechanisms shall be positioned within the facility in such a manner as to be readily accessible and highly visible for monitoring purposes;

27. The design of the facility shall not place a demand exceeding the remaining use capability of existing physical utilities including, but not limited to, potable and non-potable water supplies, waste water and stormwater collection and treatment, energy supply and transmission, transportation systems, or any other site related infrastructure subsystems, except in those cases where plans have been developed or are being implemented to provide for the expansion of existing utility systems or establishment of new utility systems which will meet the additional demand generated by the construction and operation of the facility. Copies of existing utility expansion plans and implementation time frames shall be submitted in those cases where such expansions are needed to meet the additional demand described above; and

28. All thermal destruction facilities shall be equipped with an independent, auxiliary power system capable of supplying energy in the case of a power supply failure sufficient to complete a controlled facility shutdown.

#### 7:26-2B.5 Additional engineering design submission requirements and design requirements for transfer stations and materials recovery facilities

(a) The requirements of this section are in addition to the requirements of N.J.A.C. 7:26-2.10.

(b) All solid waste transfer stations and materials recovery facilities, except for those regulated pursuant to N.J.A.C. 7:26-2.4(c)2, and except as noted in (g) below, shall be designed in accordance with the following:

1. Facilities shall be designed with a system capable of collecting, storing, treating and disposing of wastewater generated during normal operations, including the wash-out and cleaning of equipment, trucks and floors, in compliance with the applicable rules regarding wastewater and stormwater management at N.J.A.C. 7:14A;

2. Facilities shall be designed with facility processing, tipping, sorting, loading, storage and compaction areas located within the confines of an enclosed building.

3. Facilities shall be designed with concrete or equivalent tipping floors or ramps to

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ensure the proper containment and channeling of wastewater to sanitary sewer connections or corrosion resistant holding tanks and to withstand heavy vehicle usage, in compliance with the applicable rules regarding the discharge of wastewater and the utilization of holding tanks at N.J.A.C. 7:14A and 7:14B;

4. Facilities' on site roadways and storage areas shall be designed with concrete or asphalt paving in those areas subject to vehicle loading and unloading activities;

5. Facilities shall be designed with sufficient internal storage areas for unprocessed incoming solid waste to ensure an environmentally sound operation and for proper processing of the maximum permitted daily incoming waste loading;

6. Facilities and all appurtenances, including all vehicles while onsite, shall be designed, positioned and buffered in such a manner that the sound levels generated by the operation shall not exceed limits established pursuant to the Noise Control Regulations, N.J.A.C. 7:29;

7. Facilities shall be designed in a manner which will prevent the migration of odors and dust outside the confines of the enclosed building;

8. Facilities shall be designed in such a manner so as to afford fluid vehicular movement onsite in accordance with the approved on-site queuing plan and prevent traffic backups and related traffic hazards on access roads servicing the facility;

9. Offsite truck routes for the conveyance of solid waste shall be defined and delineated in such a manner as to minimize impacts on surrounding residential development or similar sensitive receptor. The truck traffic to and from the proposed facility shall not result in an unacceptable decrease in the level of service, as described and defined in the New Jersey Department of Transportation (NJDOT) Highway Access Management Code (N.J.A.C. 16:47), at major intersections located along the designated truck routes;

10. Facility layout design shall conform to the configuration of the site. A setback area shall be provided to allow for adequate buffering of the site. All main building enclosures shall be designed with a minimum setback of 50 feet from the facility property line. The Department shall allow a reduction in the setback limit if the applicant satisfactorily demonstrates that such a reduction will not pose an adverse impact on the adjacent land use activities;

11. Facilities shall be designed with alarm and fire protection systems capable of detecting, controlling, and extinguishing any and all fires that may occur. All fire protection systems shall be designed to comply with N.J.A.C. 5:23-3.17 and the standards established by the National Fire Protection Association (NFPA);

12. The interior layout shall provide for system installations that maximize accessibility for repairs, maintenance, and cleaning, while affording employee safety;

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13. Facilities shall be designed and constructed in full conformance with the specifications and requirements of the Uniform Construction Code, N.J.A.C. 5:23;

14. The facility shall be designed so as not to place a demand exceeding the remaining use capability of existing physical utilities including, but not limited to, water supply, wastewater and stormwater collection and treatment systems, energy supply and transportation systems; and

15. The proposed ultimate disposal facility and location for all waste processed by the facility shall be identified.

(c) The site plan map shall include the following:

1. A layout of all facility buildings, structures and roadways which shall indicate the type of construction materials;

2. Profile views of all structures and enclosures showing dimensions. Plan views showing building setback, side and rear distances between the proposed structure and other existing or proposed structures, roadways, parking areas, and site boundaries;

3. Interior floor plan showing the layout, profile view and dimensions of the processing lines, interior unloading, sorting, storage and loading areas; and

4. A description with detailed specifications of the proposed onsite and offsite transportation system which shall indicate the type of construction materials.

(d) The engineering report shall include:

1. Descriptive and detailed specifications of all process equipment to be used, including the equipment's rated and designed capacity. Schematic diagrams shall be provided;

2. Equipment specifications including information pertaining to the make, model and manufacturer, if available, and the related processing equipment, reliability and efficiency shall be submitted;

3. A discussion of the maximum length of time that waste and, where applicable, recyclable materials will be stored at the facility; and

4. A description of any materials recycling or reclamation activities to be operated in conjunction with the facility.

(e) If the facility is to handle liquid or liquid-solid waste mixtures, the proposed methods to protect and monitor the quality of groundwater and nearby surface waters shall be indicated.

(f) If the materials recovery facility is designed with mechanical size reduction equipment, an explosion suppression system shall be included in the engineering design.

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(g) Owners or operators of transfer stations who receive, store, treat or transfer only ID 72 liquid wastes are not required to comply with (b)2, 3, 5 and 7 above.

(h) Additional engineering design submission requirements and design requirements for ID 72 liquid waste transfer stations are as follows:

1. ID 72 liquid waste transfer stations are subject to all applicable Spill Prevention, Control and Countermeasure requirements found at 40 C.F.R. Part 112 and all applicable discharge prevention, containment and countermeasure and discharge cleanup and removal requirements found at N.J.A.C. 7:1E, in addition to the requirements of this section.

2. Owners or operators of ID 72 liquid waste transfer stations shall not store or treat ID 72 liquid wastes in units other than containers and/or aboveground tanks.

3. Containers and aboveground tanks used to store or treat ID 72 liquid wastes at transfer stations shall be:

i. In good condition (no severe rusting, apparent structural defects or deterioration); and

ii. Not leaking (no visible leaks).

4. Containers and aboveground tanks used to store or treat ID 72 liquid wastes at a transfer station shall be equipped with a secondary containment system meeting the following:

i. The entire containment system, including walls and floor, shall be sufficiently impervious to waste materials to prevent any waste materials released into the containment system from migrating out of the system to the soil, groundwater, or surface water; and

ii. The secondary containment system shall consist of, at a minimum:

(1) Dikes, berms, or retaining walls, and a floor which shall cover the entire area within the dike, berm, or retaining wall; or

(2) A secondary containment system equivalent to (h)4ii(1) above.

7:26-2B.6 Additional engineering requirements for solid waste composting and co-composting facilities

(a) The requirements of this section are in addition to the requirements of N.J.A.C. 7:26-2.10.

(b) Co-composting facilities require a SWF permit and may also require one or more

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NJPDES permits from the Department in accordance with N.J.A.C. 7:14A.

(c) The engineering report for these facilities shall include the following:

1. A discussion of the quantity and composition of the waste streams entering the proposed facility in terms of:

- i. Municipality of origin; and
- ii. Weight, volume and corresponding load density characteristics.

2. If sewage sludge is to be co-composted with solid waste, identify the quantity and physical/chemical characteristics of each source of sewage sludge. Sludge characteristics will be reviewed by the Department for a determination of their suitability for acceptance and processing at the proposed solid waste composting facility. The following information shall be submitted for each individual source of sludge:

- i. Identify the type of processing carried out at the sewage treatment plant source prior to dewatering (e.g. lime stabilization, digestion, long term storage, other);
- ii. Identify the dewatering processes instituted, including a description of the equipment or technique used, the chemical reagents employed and a determination of the percent solids achieved;
- iii. Express quantities on a dry weight basis and volume of the percent solids delivered to the facility. Identify the maximum, minimum and average delivery rates anticipated; and
- iv. Provide a physical/chemical analysis for the sludge from each source, in accordance with the Sludge Quality Assurance regulations, N.J.A.C. 7:14-4. The Department may require additional testing where conditions dictate.

3. A description of the number, type, capacity and delivery or removal frequency (indicate both average and peak periods) of all transport vehicles. Describe on-site parking capabilities, loading and unloading facilities, access and exit points and mechanisms and features employed to provide for an even flow of traffic onto, on and away from the site. Describe the related material construction specifications and details;

4. Identify, locate and describe the utilities intended to service the proposed facility including, but not limited to, the storm water drainage system, sanitary sewer system, water supply system, electrical or other energy system;

5. Process management should be based on specific and objective processing goals. Processing goals should be identified including, but not limited to, rapid processing, drying method, materials handling, nitrogen retention, etc. Describe the underlying conceptual basis or strategy upon which the process management will be based. A rationale should be given for the management strategy chosen in reference to others;



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6. Describe all process steps including, but not limited to, waste delivery, storage, mixing, composting methods, curing, screening, finishing, packaging and related process equipment and pollution control systems, instrumentation and monitoring mechanisms, if applicable. Within the context of the process description, identify the mix ratio of solid waste to sludge as well as the bulk weight and porosity of the mix. Provide an indication of the period of time during which active composting is to take place and the temperatures to be reached and maintained within that period. Identify the rate of aeration afforded and the time frame established for compost curing. Submit equipment specifications relating to make, model, manufacturer, processing capacity, reliability, efficiency and the relevant design and operating criteria that directly relates to the equipment's intended performance, plus the number of equipment units which will be available at the facility. Information on individual unit synchronization with upstream and downstream equipment, if applicable, shall also be provided;

7. A comprehensive materials balance for the proposed facility shall be submitted. The materials balance shall account for every handling and processing step starting with waste delivery scheduling to the facility and ending with final product and waste/residue removal from the site. Quantification and qualification of sidestream process pollutants, if any, shall also be provided for in the materials balance. If any materials recovery is anticipated, document the anticipated materials recovery rates in tons per hour for each recovered component;

8. A discussion of the contingency disposal options to be utilized if the composted end product cannot be marketed. These disposal options shall be in accordance with the approved district solid waste management plan and Departmental requirements established for the distribution of sewage sludge compost, if applicable;

9. A process flow diagram of the proposed processing steps involved in recovering recyclable materials and mixed organic material from solid waste, any processing of recovered recyclable materials, and the composting, curing and storage of the mixed organic faction;

10. Profile views of all structures and enclosures showing dimensions;

11. In addition to the requirements of N.J.A.C. 7:26-2.10(b)9, the operation and maintenance manual for the facility shall include the following information:

- i. A description of the anticipated types, quantity, variation over time, and sources of waste to be received and a description of any additives used in the process;
- ii. Designation of persons responsible for operation, control and maintenance of facility;
- iii. Methods for measuring incoming waste;
- iv. Methods to control the types of waste received (for example, inspection procedures);

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- v. Methods for removing and recovering for recycling or disposing of non-compostable wastes from the incoming waste stream, including procedures for removal, storage and disposal of any hazardous wastes;
- vi. Methods to control traffic and to expedite unloading;
- vii. Methods to maintain biological conditions;
- viii. Methods to minimize, manage and monitor odors;
- ix. Leachate and National Pollutant Discharge Elimination System storm water control measures;
- x. Vector, dust and litter control measures;
- xi. Contingency operations plan (in the event of equipment failure, power outages, natural disasters, fire, receipt of prohibited materials), including designation of permitted disposal sites for incoming waste, leachate, and for hazardous wastes;
- xii. Plans for monitoring, sampling and testing the composting materials for process control and product quality assurance as specified at N.J.A.C. 7:26-2B.7(i); and
- xiii. Plans for marketing the finished compost; and

12. A final closure plan containing a schedule and description of the steps necessary to close the facility and financial assurance information.

(d) If a natural ground surface is to be used for storage or if any surface impoundments, lagoons, or other structures for storage or conveyance of leachate, runoff or condensate are proposed, soil borings of the property shall be provided in accordance with the following:

<u>Acreage</u>	<u>Minimum Number of Borings</u>	<u>Minimum Depth of Borings</u>
1 – 10	4	10 feet or to
10 – 50	8	the ground
50 – 100	14	water
		table
100 – 200	20	
Over 200	24	

(e) The site plan map shall depict the facility layout on the property and include profile views of all structures, utilities and enclosures showing height, breadth and bulk dimensions. Dimensions for loading, unloading, storage (for example, incoming waste, outgoing product), processing, composting and curing areas shall be provided. Identify the type of drainage system, run-off and leachate control systems. Building setbacks and the distances of any onsite proposed or existing structure, processing area or treatment area, and streets from the site

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boundaries shall be indicated. The site plan map shall include interior floor plans showing the layout, profile view and dimensions of the interior unloading, sorting, storage, processing, and loading areas as well as auxiliary functional areas such as offices and employees' facilities.

(f) Solid waste composting and co-composting facility engineering design requirements are as follows:

1. The composting structure must withstand wear and tear of normal operations. A roof shall cover the receiving, processing, production and curing areas. Floor structure must be impermeable ( $10^{-7}$  cm/sec) and be sloped to prevent ponding of liquids and to direct leachate to a leachate collection system. Leachate control shall be provided wherever leachate is generated.

2. All building enclosures shall be designed with a minimum setback of 100 feet from the property line of the facility. Any part of facility operations open to the environment shall be designed with a minimum setback of 2,500 feet from the nearest sensitive environmental receptor.

3. The facility design plan must address management of storm water and leachate:

i. Storm water which does come in contact with material on site shall be considered leachate.

ii. The leachate collection and removal system shall be designed for reuse in processing or treatment as dictated by local authorities.

4. The facility design must provide for:

i. Effective barriers to unauthorized entry and dumping (fencing, gates, locks, etc.);

ii. Adequate access roads to the site;

iii. Appropriate signs (at facility entrance, directing traffic flow, public information);

iv. Access to scales, if applicable;

v. Equipment and methods for achieving odor, noise, vector, dust, and litter control; and

vi. Fire protection and control features.

5. The facility shall have sufficient capacity to handle projected incoming volumes of waste.

6. The facility design must address specific storage issues, including:

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- i. Capacity for incoming wastes waiting to be processed (three days plus contingency storage);
  - ii. Capacity for proper handling, storage, and removal of hazardous or other non-permitted wastes delivered to or generated by the facility; and
  - iii. Capacity for finished compost storage, not to exceed 15 months' production, in accordance with a compost marketing plan.
7. The facility shall have sufficient structural support for operations (waste, equipment, buildings, etc.).
8. The facility design plan should include provisions for operations during wind, heavy rain, snow, freezing or other inclement weather conditions.
9. An occupational health and safety plan established in conformance with the safety and health standards of the Federal Department of Labor, Occupational Safety and Health Administration pursuant to 29 C.F.R. 1926 and 1910 Safety and Health Standards and Industrial Standards.
10. A written training plan which shall include the type and amount of both the initial and annual follow- up training to be provided to facility personnel;
11. The composting process shall meet the criteria for a process to further reduce pathogens (PFRP) as required by the U.S. EPA (40 C.F.R. Part 257). Three methods are accepted:
  - i. Windrow method, which meets PFRP as follows:
    - (1) Maintain aerobic conditions; and
    - (2) A minimum of five turnings over 15 consecutive days, maintaining a temperature of not less than 55 degrees Celcius/131 degrees Fahrenheit.
  - ii. Aerated static pile method which meets PFRP as follows:
    - (1) Pile insulated with six to 12 inches of insulating material (for example, sawdust, cured compost, or wood chips); and
    - (2) Temperature of at least 55 degrees Celcius/131 degrees Fahrenheit maintained throughout mixture for three consecutive days.
  - iii. Enclosed (within) vessel composting method which meets PFRP by:

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(1) Temperature maintained at 55 degrees Celcius/131 degrees Fahrenheit throughout mixture for at least three consecutive days.

iii. Any future PFRP provided by Federal or State regulation.

#### 7:26-2B.7 Additional operational requirements for solid waste composting and co-composting facilities

(a) The requirements of this section are in addition to the general operational requirements of N.J.A.C. 7:26-2.11 and the solid waste facilities records maintenance requirements of N.J.A.C. 7:26-2.13.

(b) The owner and/or operator shall submit a quarterly report to the Department within 30 days after the end of each calendar quarter. The quarterly report shall include the following:

1. The quantity, type and source of incoming waste;
2. The quantity and types of recovered recyclables;
3. The quantity of compost produced;
4. The results of compost analysis;
5. The quantity, before blending, of compost sold or distributed, and markets;
6. The quantity of disposed residue, and sites;
7. Daily temperature readings and retention times during the composting process;
8. A summary of leachate management (collected, reused, and treated/ disposed);
9. A summary of major maintenance on leachate, temperature or other monitoring and control systems in operation; and
10. The standard procedures to assure data reliability.

(c) All compost analysis shall be performed by a laboratory certified pursuant to N.J.A.C. 7:18.

(d) The facility shall be operated under the supervision and control of properly trained individuals during all hours of operation, and access to facility shall be prohibited when facility is closed.

1. The owner and/or operator shall train all employees in appropriate facility operations, maintenance procedures, and safety and emergency procedures in accordance with the training plan developed pursuant to N.J.A.C. 7:26-2B.6(d)10.

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(e) The owner and/or operator shall monitor and record the temperature of composting materials daily to ensure that the pathogen reduction criteria at N.J.A.C. 7:26-2B.6(f)11 are met.

(f) The owner and/or operator shall begin processing all incoming waste within three days. Any waste that is not processed within three days shall be sent for disposal. The owner and/or operator shall begin processing incoming waste containing grass within 24 hours unless the receiving area is fully enclosed and equipped with odor controls. For facilities without fully enclosed receiving areas, any waste containing grass that is not processed within 24 hours shall be sent for disposal.

(g) Incoming, unprocessed waste shall not be mixed with finished compost.

(h) Stored finished compost that is not sold or distributed within 15 months shall be removed for disposal or reprocessed for sale or distribution.

(i) In addition to the information required by N.J.A.C. 7:26-2.13(a), the daily record of facility operations shall include:

1. Daily temperature and moisture monitoring of the composting process;
2. Laboratory analyses;
3. The retention time of the composted material; and
4. The sale and distribution of recovered materials.

(j) The owner and/or operator shall develop a quality assurance (QA)/quality control (QC) plan to be included in the final operation and maintenance manual. Such plan shall outline the monitoring, sampling and analysis plans for testing the compost process and product.

(k) The Department shall set an appropriate monitoring and sampling schedule for the start-up period (one year) as part of the facility permit.

(l) Using information gained during the start-up period, a monitoring and sampling schedule for ongoing operations will be developed with the Department based on statistical methods for quality assurance.

(m) Representative samples of the compost shall be obtained in accordance with the approved plan. Samples of the compost produced at the facility shall be analyzed for the compost quality monitoring parameters listed in the Appendix to this subchapter, incorporated herein by reference, in accordance with the appropriate methods as approved in the sampling plan.

(n) Results of all laboratory analyses for each parameter shall be recorded and maintained at the facility and shall be reported to the Department as specified at (b) above.

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(o) Any package containing compost offered for sale or distribution shall be labeled with the recommended safe uses and application rates, and restrictions, if any, on use of the product. If compost is offered for bulk sale or distribution, signs or printed literature containing such information shall be made available.

(p) Compost offered for sale or distribution shall satisfy the standards established by the USEPA at 40 C.F.R. 503. Specifically, compost offered for sale or distribution shall meet the pollutant concentrations in 40 C.F.R. 503.13(b)(3), the Class A pathogen requirements in 40 C.F.R. 503.32(A), and one of the vector attraction reduction requirements in 40 C.F.R. 503.33(b)(1) through 503.33(b)8. Compost not satisfying the standards established by the USEPA may be used only as authorized by the Department, or it shall be disposed.

(q) This subsection shall govern the closure and post-closure care of all composting and co-composting facilities.

1. The owner and/or operator of a permitted composting or co-composting facility shall not revise the final closure plan submitted pursuant to (c)12 above without prior approval of the Department. The owner and/or operator may submit an updated final closure plan, containing the proposed revisions to the Department at any time, provided that all revisions are submitted at least 180 days prior to termination of operations at the facility.

2. The owner and/or operator shall notify the Department, in writing, return receipt requested, at least 60 days prior to the date of termination of operations at the facility.

3. The owner and/or operator shall publish notice of termination of operations at the facility in a newspaper of general circulation in the district where the facility is located and in the district(s) or municipality(ies) sending at least 25 percent of their waste to the facility at least 30 days prior to the date of termination of operations at the facility.

4. Within 10 days of ceasing operation, all residuals and waste shall be removed from the site and recycled or disposed and the owner and/or operator shall arrange for a final cleaning of any containers, equipment, machines, floors and facility surfaces having come in contact with solid waste.

5. A composting facility shall be considered finally closed when all the requirements of the closure plan have been met.

#### 7:26-2B.8 Additional operational requirements for thermal destruction facilities

(a) The requirements of this section are in addition to the general requirements of N.J.A.C. 7:26-2.11.

(b) Subsequent to completion of the facility construction phase and prior to the initiation of facility operations, the New Jersey licensed professional engineer retained by the applicant to supervise the construction of the facility shall certify in writing to the Department that he or she

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has personally examined the facility during each major stage of construction and that the facility has been constructed in accordance with the documents, statements, designs and plans submitted to and as approved by the Department.

(c) The owner and/or operator of the facility shall provide written notification to the Department of the intent to initiate the start up of operations at the facility at least 30 days in advance of the planned date. During this initial period of facility start up the Department reserves the right to have a representative present at the facility to observe any equipment testing that is being conducted as well as the right to collect samples to verify results.

(d) Immediately following the initiation of operations, facility personnel shall begin routine inspections for equipment malfunction or deterioration and operating effectiveness, in accordance with the following:

1. The owner or operator shall conduct inspections as indicated in the approved final O and M manual in order to identify and remedy any problems; and

2. The owner and/or operator shall record the results of the inspections in a log book or by means of an electronic storage system approved by the Department which shall be accessible at the facility 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 actions taken.

(e) A Department inspector may, at the option of the Department, be stationed at district facilities on a daily basis and during all facility operating hours. The owner and/or operator of such a facility shall allow entry to the inspector at any time during operating hours. The owner and/or operator shall make available office space for Department personnel to prepare inspection reports.

(f) The owner or operator shall implement waste receiving area control procedures that provide for the inspection of the incoming waste stream for the purpose of removing unprocessable or potentially explosive materials prior to the initiation of processing. In addition, the inspection shall effectively prevent the acceptance of unauthorized waste types. These procedures and necessary contingency plans shall be incorporated into the approved final O and M manual.

(g) Should situations arise where the facility experiences equipment or system malfunction to the extent that the waste received cannot be handled or processed in the normal manner, as specified in the facility's SWF permit, then the operator shall notify the Department of the existence of such a situation and the circumstances contributing to the situation within the working day of its occurrence. The operator shall immediately pursue corrective measures. The continued receipt of wastes at the facility shall be limited to that quantity and type that can be handled, stored and processed in conformance with that facility's remaining approved operational capacity.

(h) Arrangements for facility generated waste disposal shall be established and maintained



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throughout the life of the facility. These waste disposal arrangements shall be in conformance with the Solid Waste Management Plan of the District in which the facility is located and with the rules of the Department.

(i) Unprocessed incoming waste, facility process waste residues and effluents, and recovered materials shall be stored in bunkers, pits, bins, or similar containment vessels and shall be kept at all times at levels that prevent spillage or overflow.

(j) During periods when the facility is not processing wastes and during hours when waste is not being received, waste delivery tipping hall doors shall be kept closed to minimize potential migration of odors and dust to the exterior in accordance with N.J.A.C. 7:27.

(k) The delivery of waste to the facility and the removal of residues and recovered products from the site shall be scheduled so as to eliminate traffic backups and allow for fluid vehicular movement on site. Delivery routes shall be clearly delineated and adhered to. Arteries that pass through non-residential areas shall be utilized wherever possible.

(l) Samples and measurements taken for the purpose of monitoring facility process and treatment operations shall be representative of the process or operation and shall be performed in accordance with the conditions of the facility's SWF permit, as well as the requirements of other regulatory agencies where applicable. Monitoring shall be conducted through the use of continuous monitoring instrumentation, where feasible.

(m) Prior to disposal, the owner and/or operator shall perform a waste determination on all residual ash, in accordance with N.J.A.C. 7:26G-6. Such determination shall be based on analyses of representative composite samples collected in the manner specified in the facility's SWF permit. At a minimum the sampling shall include analyses for toxicity characteristics and total dioxins and furans per EPA test method 1613b (EPA report 821/B-94-005), incorporated herein by reference, or equivalent as approved by the Department, and shall be performed at the frequency specified in the facility's SWF permit.

(n) The Department may alter the list of ash test parameters, the methods of sample collection, the analytical procedures employed and the frequency of sampling and analysis deemed necessary. The permittee may request the Department to reduce the number of ash test parameters specified within the solid waste facility permit by applying qualitative knowledge of incoming waste streams. If the owner and/or operator demonstrates through testing that the concentration of any given parameter is consistently below method detection levels as determined using the Toxicity Characteristic Leaching Procedure (TCLP), as defined in USEPA's Test Methods for Evaluating Solid Waste Physical/ Chemical Methods SW 846 (SW 846), or the concentration of any given parameter as determined using a total metals analysis, as defined in SW 846, is consistently below 20 times the regulatory threshold levels of the TCLP, the permittee may request the Department to eliminate those parameters from subsequent analysis.

(o) The analyses required by (m) and (n) above shall be performed in accordance with procedures outlined in the most recent edition of "Test Methods for Evaluating Solid Waste--

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Physical/Chemical Methods," U.S.E.P.A. publication SW-846.

(p) The results of ash analysis, including the statistical evaluation of the analytical data conducted in accordance with SW 846, and related quality assessment and quality control information pertaining to sample collection, handling and laboratory analytical methodology, shall be submitted to the Department for evaluation. The owner and/or operator shall dispose of the onsite generated residual ash at a facility authorized and permitted to receive the waste type I.D. number assigned to the residual ash by the Department in accordance with its classification.

(q) The operator shall retain original records of all waste analyses and operations' monitoring reports at the facility for a period of three years from the date of measurement.

(r) Records of operations' monitoring and waste analyses required by (q) above shall include:

1. The date, time and place of sampling, measurement or analysis;
2. Chain of custody for all samples collected;
3. The name of the individual who performed the sampling, measurement or analysis;
4. The sampling and analytical methods including the minimum detection levels for the analytical procedure utilized;
5. The results of such sampling, measurement or analyses; and
6. The signature and certification of the report by an appropriate authorized agent for the facility.

(s) The owner and/or operator shall act to prevent accidental or unintentional entry and minimize the possibility for unauthorized entry into the facility. The facility shall have a 24-hour surveillance system which continuously monitors and controls entry to the facility or an artificial or natural barrier which completely surrounds the facility. In addition, the facility shall have a means to control entry at all times through the gates or other entrances to the facility.

(t) The owner and/or operator shall comply with the following requirements pertaining to facility staffing:

1. Facilities shall maintain sufficient personnel during each scheduled shift to assure the proper and orderly operation of all system components, along with the ability to handle all routine facility maintenance requirements. Such personnel shall have sufficient educational background, employment experience and/or training to enable them to perform their duties in such a manner as to ensure the facility's compliance with the requirements of the Act, this chapter, and the conditions of its SWF permit;
2. Each shift shall have a designated shift supervisor authorized by the owner or operator to direct and implement all operational decisions during that shift;

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3. A facility utilizing a boiler to generate steam, power or heat shall employ individuals licensed in accordance with the Rules and Regulations of the New Jersey Department of Labor, "Boilers, Pressure Vessels and Refrigeration," N.J.A.C. 12:90; and

4. Every district facility shall have under contract a New Jersey licensed professional engineer as a consultant to oversee the general plant operations. This engineer shall possess experience in the design and operation of the major system components or equipment that constitute the facility.

(u) The owner and/or operator shall comply with the following requirements pertaining to facility personnel training:

1. All personnel who are directly involved in facility waste management activities or who operate, service, or monitor any facility equipment, machinery or systems shall successfully complete an initial program of classroom instruction and on-the-job training that includes instruction in the operation and maintenance of the equipment, machinery and systems which they must operate, service or monitor in the course of their daily job duties, and which teaches them to perform their duties in a manner that ensures the facility's compliance with the requirements of the Act, this chapter and the conditions of its SWF permit;

2. The training program shall be directed by a person thoroughly familiar with the technology being utilized at the facility and the conditions of the facility's permits;

3. The training program shall ensure that facility personnel are able to effectively respond to any equipment malfunction or emergency situation that may arise. The training program shall provide instruction in the use of personal safety equipment, procedures for inspecting and repairing facility equipment, the use of communications or alarm systems, the procedures to be followed in response to fires, explosions or other emergencies, and the procedures to be followed during planned or unplanned shutdown of operations;

4. Employees hired shall not work in unsupervised positions until they have completed the training program required herein;

5. Facility personnel shall take part in a planned annual review of the initial training program; and

6. Training records that document the type and amount of training received by current facility personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least one year from the date the employee last worked at the facility.

(v) The following actions shall be implemented in the case of an emergency:

1. The plant operator or emergency coordinator shall immediately identify the character, exact source, amount and extent of any discharged materials and notify appropriate

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State or local agencies with designated response roles if their help is needed;

2. Concurrently, the plant operator or emergency coordinator shall assess possible hazards to public health or the environment that may result from the discharge, fire or explosion. This assessment shall consider both direct and indirect effects;

3. If the plant operator or emergency coordinator determines that the facility has had an uncontrolled discharge, a discharge above standard levels permitted by the Department, or a fire or explosion, he or she shall:

- i. Immediately notify appropriate local authorities if an assessment indicates that evacuation of local areas may be advisable;
- ii. Immediately notify the Department at 1-877-WARNDEP; and
- iii. When notifying the Department, report the type of substance and the estimated quantity discharged, if known, the location of the discharge, the action the person reporting the discharge is currently taking or proposing to take in order to mitigate the discharge and any other information concerning the incident which the Department may request at the time of notification.

4. The plant operator shall take all reasonable measures to ensure that fires, explosions and discharges do not recur or spread to other areas of the facility. These measures shall include, where applicable, the cessation of process operations and the collection and containment of released waste;

5. Immediately after an emergency, the plant operator or emergency coordinator shall provide for treating, storing or disposing of waste, contaminated soil or water or any other material contaminated as a result of the discharge, fire or explosion;

6. The plant operator or emergency coordinator shall insure that no waste is processed until cleanup procedures are completed and all emergency equipment listed in the contingency plan is again fit for its intended use;

7. The plant operator or emergency coordinator shall notify the Department and appropriate local authorities when operations in the affected areas of the facility have returned to normal; and

8. Within 15 days after the incident, the plant operator or emergency coordinator shall submit a written report on the incident to the Department. The report shall include, but not be limited to:

- i. The name, address and telephone number of the facility;
- ii. The date, time and description of the incident;

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- iii. The extent of injuries, if applicable, with names and responsibilities indicated;
- iv. An assessment of actual damage to the environment, if applicable;
- v. An assessment of the scope and magnitude of the incident;
- vi. A description of the immediate actions that have been initiated to clean up the affected area and prevent a recurrence of a similar incident; and
- vii. An implementation schedule for undertaking measures to effect cleanup and avoid recurrence of the incident, if applicable.

#### 7:26-2B.9 Additional operational requirements for transfer stations and materials recovery facilities

- (a) At no time shall ID 27 solid waste be subject to mechanized processing, such as grinding, shredding or baling, such that the physical appearance of the material is altered prior to disposal at a designated district facility.
- (b) All facility processing, tipping, sorting, loading, storage and compaction of materials (that is, solid waste and mixtures of solid waste and recyclable materials) shall occur within the confines of an enclosed building.
- (c) The installation, maintenance, operation, and repair of all systems identified within the interior layout of the facility shall comply with the requirements established by the Federal Occupational Health and Safety Administration and the New Jersey Worker and Community Right to Know Act.
- (d) The queuing and staging of solid waste vehicles on any public roadway is prohibited.
- (e) The queuing and staging of solid waste vehicles shall be conducted in accordance with the approved on-site queuing plan for the facility so as to prevent traffic backups and related traffic hazards on access roads servicing the facility.
- (f) Owners or operators of transfer stations who receive, store, treat or transfer only ID 72 liquid wastes are not required to comply with (a) and (b) above.
- (g) Additional operational requirements for ID 72 liquid waste transfer stations are as follows:
  - 1. The following are the label standards for ID 72 liquid waste transfer facilities:
    - i. Containers and above ground tanks used to store or treat ID 72 liquid wastes at transfer stations shall be labeled or marked clearly with the words "ID 72 Waste"; and

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ii. Piping used to transfer ID 72 liquid wastes to and from containers and/or aboveground tanks at transfer stations shall be labeled or marked clearly with the words "ID 72 Waste."

2. The following are the waste analysis requirements for ID 72 liquid waste transfer facilities:

i. Before an owner or operator receives, stores, treats or transfers any ID 72 liquid waste, the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, the analysis shall contain all the information which must be known to receive, store, treat or transfer the waste in accordance with this chapter.

ii. The analysis required by (g)2i above may include existing published or documented data on the waste, or on wastes generated from similar processes.

iii. The analysis shall be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis shall be repeated:

(1) When the owner or operator is notified, or has reason to believe, that the process or operation generating the waste has changed; and

(2) When the results of the inspection required in (g)2iv below indicate that the waste received at the transfer facility does not match the waste designated on the accompanying shipping paper.

iv. The owner or operator of an ID 72 liquid waste transfer station shall inspect and, if necessary, analyze each waste shipment received at the facility to determine whether it matches the identity of the waste specified on the accompanying shipping paper.

3. The following are incompatible wastes requirements for ID 72 liquid waste transfer facilities:

i. Owners or operators of ID 72 liquid waste transfer stations that receive, store, treat or transfer incompatible wastes or mixtures of incompatible wastes and other materials shall take precautions to prevent reactions which:

(1) Generate extreme heat or pressure, fire or explosions, or violent reactions;

(2) Produce uncontrolled toxic mists, fumes or gases in sufficient quantities to threaten human health or the environment;

(3) Produce uncontrolled flammable fumes or gases in sufficient quantities

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to pose a risk of fires or explosions;

- (4) Damage the structural integrity of the equipment or the facility; or
- (5) Through other like means threaten human health or the environment.

ii. The owner shall document compliance with (g)3i(1) through (5) above. This documentation may be based on references to published scientific literature, data from trial tests (for example, bench scale or pilot scale tests), waste analyses, or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

4. Upon detection of a release of ID 72 liquid waste to the environment at a transfer station, the owner/operator shall perform the following cleanup steps:

- i. Stop the release;
  - ii. Contain the released waste materials;
  - iii. Clean up and manage properly the released wastes and other materials;
- and
- iv. If necessary, repair or replace any leaking storage or treatment containers or tanks prior to returning them to service.

7:26-2B.10 (Reserved)

## APPENDIX

### COMPOST QUALITY MONITORING PARAMETERS

<b>Parameter</b>	<b>Unit</b>
Stability – respirometry	Mg O <sub>2</sub> /kg
O <sub>2</sub> consumed	VS/hr
Soluble salts – electrical	mmhos/cm
Fecal coliform	MPN/g
Salmonella	MPN/4 g
pH	
Regulated parameters:	
Arsenic (As)	mg/kg dry wt.
Cadmium (Cd)	mg/kg dry wt.
Chromium (Cr)	mg/kg dry wt.
Copper (Cu)	mg/kg dry wt.

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Lead (Pb)	mg/kg dry wt.
Mercury (Hg)	mg/kg dry wt.
Molybdenum (Mo)	mg/kg dry wt.
Nickel (Ni)	mg/kg dry wt.
Selenium (Se)	mg/kg dry wt.
Zinc (Zn)	mg/kg dry wt.
Man-made Inerts > 4 mm, < 13 mm	Visual
Film plastic > 4 mm	cm <sup>2</sup> /m <sup>3</sup>
Sharps	PRS

Notes:

1. VS means volatile solids.
2. MPN means most probable number per gram of total solids in the sewage sludge or compost. MPN is an index of the number of coliform bacteria, reported by the multiple-tube fermentation procedure of the coliform test, that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration.
3. Mmhos is a unit of electrical conductivity, it is the reciprocal of ohm.
4. Man-made inert material includes glass shards and metal fragments that pose a human and animal safety hazard with unprotected exposure or through direct ingestion.
5. Film plastic can be a potential hazard to small animals through direct ingestion.