

US EPA ARCHIVE DOCUMENT

**STATE OF DELAWARE****DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL  
DIVISION OF AIR AND WASTE MANAGEMENT****HAZARDOUS WASTE MANAGEMENT BRANCH  
PROGRAM DESCRIPTION****I. INTRODUCTION****A. General Background**

The State of Delaware was granted full authorization for the base hazardous waste program on December 14, 1983. Delaware's authorized program was codified on January 31, 1986. The State continues in its efforts to maintain primacy over its hazardous waste program by adopting regulations as required by Section 3006(b) and 40 CFR Part 271, Subpart A. By doing so, the State maintains a program that is consistent and equivalent with the intent of the Federal RCRA program.

**B. Purpose of Program Description**

This Program Description is included as part of the Revision 3 application and amends previously submitted Program Descriptions included in the Base Authorization and Revision 1 and 2 Authorization applications. The purpose of this amended Program Description is to further describe how the state of Delaware will implement its Hazardous Waste Management Program in light of the revision described herein. Any information not in this Program Description remain the same as the Program Descriptions found in Revisions 1 and 2 applications. This amended Program Description contains elements from HSWA Clusters I and II (checklists SR1, 17H, 17L, 42, 44A-G, and 77), and RCRA Clusters II through IX (checklists 100, 121, 126, 127, 128, 131, 132, 133, 134, 135, 136, 139, 140, 141, 142A-E, 144, 145, 148, 150, 151, 152, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 166, 167A-F, 168, 169, 171, 172, 173, 174, and 177). These revisions were adopted through August 23, 1999. (See Attachment 1 - Checklist Crosswalk)

**II. PROGRAM SCOPE, STRUCTURE AND COVERAGE**

On July 11, 1980 the Delaware Legislature approved House Bill No. 1018 (Laws of Delaware, Volume 62, Chapter 412). This action amended Title 7 Delaware Code, adding Chapter 63 entitled "The Hazardous Waste Management Act of 1980", relating to the regulation of hazardous waste. The Act imposed duties on the Department of Natural Resources and Environmental Control; prescribed penalties and further provided for enforcement of the Act for the purpose of protecting human health and the environment of the State of Delaware. To carry out these duties the Act required the State to establish a program of regulation over the storage, transportation, treatment and disposal of hazardous waste within the State.

Delaware's Hazardous Waste Program contains the basic principles of RCRA to qualify for re-authorization and to maintain existing program authorization. This Revision 3 application will demonstrate that the State program:

- Is **equivalent** with the Federal program as described in RCRA §3006;

- Does not impose any requirements that are **less stringent** than the Federal program as described in RCRA §3009;
- Is **consistent** with the Federal program and other State programs in accordance with RCRA §3006;
- Imposes some requirements that are **more stringent** or **broader in scope** than those imposed by Federal regulations under RCRA §3009; and
- Provides adequate enforcement in accordance with RCRA §3006.

#### A. Equivalent/No Less Stringent

Delaware is required to maintain a program that is equivalent to and no less stringent than the federal program. Delaware's Hazardous Waste Management Program is equivalent to and no less stringent in the following general categories of hazardous waste management activities:

- Classification of wastes as hazardous, via the provisions for identification and listing of hazardous waste. (7 Delaware Code Chapter 63, §6305, DRGHW Part 261);
- Notification of hazardous waste management activities. (7 Delaware Code Chapter 63, §6304, DRGHW Parts 262, 263 and 265);
- Generation of hazardous waste. (7 Delaware Code Chapter 63, §6306, DRGHW Part 262);
- TSD facility construction and operation. (7 Delaware Code Chapter 63, §6307, DRGHW Parts 264-265).
- Permitting of TSD facilities. (7 Delaware Code Chapter 63, §6307, DRGHW Parts 122 and 264); and
- Tracking of hazardous wastes from point of generation to final disposition via the manifest system. (7 Delaware Code Chapter 63, §6306, DRGHW Parts 262, 263, 264 and 265).

Delaware's program for hazardous waste management continues to meet the requirements of the Federal program with the adoption of amendment packages dated August 10, 1990, June 19, 1992, November 19, 1993, July 26, 1994, August 1, 1995, August 21, 1997, July 17, 1998, and August 23, 1999 as indicated in Attachment 1 - Checklist Crosswalk. There are no imposed requirements of DRGHW that are less stringent than the Federal program. Revisions comprising this Revision 3 application include:

- Existing and Newly Regulated Surface Impoundments;
- Double Liners;
- Corrective Action;
- Exception Reporting for Small Quantity Generators of Hazardous Waste;
- Permit Application Requirements Regarding Corrective Action
- Corrective Action Beyond the Facility Boundary;
- Corrective action for Injection Wells;
- Permit Modifications;
- Permit as a Shield Provision;
- Permit Conditions to Protect Human Health and the Environment;
- Post-Closure Permits;
- Double Liners: Correction;
- Liners and Leak Detection Systems for Hazardous Waste Land Disposal Units;
- Corrective Action Management Units and Temporary Units;
- Testing and Monitoring Activities;
- Boilers and Industrial Furnaces;
- Wastes From the Use of Chlorophenolic Formulations in Wood Surface Protection;
- Recordkeeping Instructions: Technical Amendment;
- Wood Surface Protection: Correction;

- Letter of Credit Revision;
- Correction of Beryllium Powder (P015) Listing;
- Recovered Oil Exclusion;
- Removal of Conditional Exemption for Certain Slag Residues;
- Testing and Monitoring Activities - Amendments I, II and III;
- Carbamate Production Identification and Listing of Hazardous Waste;
- Universal Waste Rule;
- Removal of Legally Obsolete Rules;
- Liquids in Landfills III;
- RCRA Public Participation;
- Recovered Oil Exclusion - Correction;
- Land Disposal Restrictions Phase III;
- Imports and Exports of Hazardous Waste: Implementation of OECD Council Decision;
- Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers (includes former revision checklists 138, 143, 146, and 149);
- Military Munitions Rule;
- Land Disposal Restrictions Phase IV;
- Carbamate Production, Identification and Listing of Hazardous Waste; LDR (Conformance with Carbamate Vacatur);
- Land Disposal Restrictions Phase III – Emergency Extension of the K088 National Variance Amendment;
- Second Emergency Revision of the Land Disposal Restrictions (LDR) Treatment Standards for Listed Hazardous Wastes from Carbamate Production;
- Clarification of Standards for Hazardous Waste LDR Treatment Variances;
- Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers; Clarification and Technical Amendment;
- Recycled Used Oil Management Standards; Technical Correction and Clarification;
- Hazardous Waste Combusters; Revised Standards;
- Petroleum Refining Wastes;
- Emergency Revision of the LDR Treatment Standards for Listed Hazardous Wastes from Carbamate Production;
- LDR IV - Extension of Compliance Date for Characteristic Slags;
- Land Disposal Restrictions – Treatment Standards for Spent Potliners from Primary Aluminum Reduction (K088);
- Post Closure Requirements and Closure Requirements;
- Organic Air Emission Standards: Clarification and Technical Amendments.

#### **B. Consistent Program**

In accordance with the provisions of 7 Delaware Code, Chapter 63, the State developed and promulgated the *Delaware Regulations Governing Hazardous Waste* (DRGHW) by primarily adopting the Federal regulations verbatim. This practice ensures consistency with Federal 40 CFR Parts 124, 260-270, 273, and 279 and allows the regulated community to have direct comparison of the requirements between the State program and the Federal program. (Note: The designation for DRGHW Part 122 is analogous to 40 CFR Part 270.)

#### **C. More Stringent Program**

The State has all the elements of the federal program noting the following differences:

- Delaware requires the primary exporter to send a copy of the Notification of Intent from primary exports to the Department;

- Landfill cover may be required under circumstances other than wind dispersal;
- The use of used oil for dust suppression is prohibited;
- Used oil processors/re-refiners are required to report their used oil activities annually;
- The State subjects mixtures of used oil and hazardous waste from conditionally exempt small hazardous waste generators to regulation under Parts 260 through 266, 268, 122, and 124;
- Regulations restrict to the State of Delaware as the state of incorporation for any guaranteeing entity;
- The State requires owners/operators of hazardous waste transfer facilities (less than ten day but greater than 72 hours accumulation of in-transit hazardous waste) to comply with State siting requirements and must obtain written approval for their activity from the Secretary. The State requires that the transfer facility be owned by the transporter for the use of the transporter only;
- The State requires that operating records retain notices required under any paragraph of §268.7 not just §268.7(a);

#### **D. Broader in Scope**

- *Siting Process.* The State requires all hazardous waste treatment, storage, or disposal facilities to obtain location approval from the Secretary prior to issuance of a hazardous waste permit or written approval for a new unit, or prior to alteration of an existing unit. Requirements and procedures are found at *Delaware Regulations Governing the Location of Hazardous Waste Storage, Treatment, and Disposal Facilities*;
- *Transporter Permits.* The State requires persons engaged in the activity of transporting characteristic or hazardous wastes and certain recyclable materials identified in DRGHW Part 261 or used/waste oils identified in DRGHW Part 279 to obtain a permit from the Department;
- *Permit Fees.* Permits issued by the HWMB are assessed a permit fee as established in 7 Delaware Code, §4701(a). These fees are used to help support various HWMB activities.

#### **E. Notice and Hearing in the Permit Process**

RCRA standards stipulate that no state permit program may be authorized unless it meets the requirements found in RCRA §7004(b)(2). This section of RCRA addresses the requirements for notices and hearings in the permitting process. Delaware complies with RCRA §7004(b)(2) by providing advance notice of its intent to take a permit action by publication of such notice in major and local newspapers in the State and by broadcasting the announcement over local radio stations. (See 7 Delaware Code, Chapter 60 and *the Delaware Regulations Governing Hazardous Waste*, Part 124.) Additionally, the State provides written notice to persons who have expressed interest by placing their name or organization on a correspondence listing.

#### **F. Adequate Enforcement**

The principal objectives of the Division's enforcement are to achieve a high degree of compliance, to consider overall Federal objectives (EPA Enforcement Response Policy dated March 15, 1996) and to ensure case by case consistency within the framework of DNREC/DOJ enforcement authorities. (See Attachment 2 - Secretary's Enforcement Policy for the Division of Air and Waste Management and the Division of Water Resources dated April 3, 1987). 7 Delaware Code, Chapter 63 provides the appropriate authority for all waste enforcement actions. Such enforcement actions include administrative orders, civil actions and criminal actions. (See Attachment 3 - Hazardous Waste Management Enforcement Strategy) Delaware also provides for public participation in the enforcement process by allowing intervention as a right in any civil or administrative action, as well as, citizen suits consistent with RCRA §7002.



### **G. Availability of Information**

The Division's Hazardous Waste Management Program provides for the public availability of information obtained by the program. Such information is available to the public in accordance with Chapter 63, §6304(c) of the Hazardous Waste Disclosure Regulations. These regulations make information available in substantially the same manner, and to the same degree as RCRA §3006(f). Please refer to State procedures for a detailed explanation of Delaware's availability of information.

### **III. STATE AGENCY RESPONSIBILITIES**

The Department of Natural Resources and Environmental Control is the sole State agency responsible for hazardous waste management and is the agency responsible for administering the RCRA program in Delaware. The mission of the Department is "[t]o promote, through service and education, the wise use, conservation and enhancement of the state's natural resources, protect public health and environment and provide quality outdoor recreation."

The Hazardous Waste Management Branch (HWMB) of the Waste Management Section within the Division of Air & Waste Management (DAWM) has primary responsibility for carrying out the duties and responsibilities related to compliance, monitoring and enforcement for treatment, storage and disposal facilities as well as generators and transporters of hazardous waste.

While adding new components to the compliance assessment procedures staffing requirements have not changed significantly with the addition of LDR, BIF and Subpart CC requirements to the State's hazardous waste management program. In addition, no new funding sources were required to carry out these additional requirements.

The division of responsibility between the State and EPA for administration of respective provisions of RCRA is described in detail in the Memorandum of Agreement (MOA). A copy of the MOA is included in this Revision 3 Application.

### **IV. STAFFING AND FUNDING**

#### **A. Staffing**

The Hazardous Waste Management Branch is staffed with personnel who have the administrative expertise, technical background and experience necessary to effectively administer the hazardous waste management program described herein. Because of the State's limited number of facilities subject to LDR and BIF requirements only one new permit writer was hired to accommodate the additional workload. The State was able to accomplish this without seeking an increase in funding levels or additional sources. Current staffing for the Hazardous Waste Management Branch consists of 3 managers, 11 technical staff and 4 administrative support staff. (See Attachment 4 - HWMB Organizational Chart)

#### **Managers**

Program Manager II (PMII) - Number of staff in this position - 1. The PMII is responsible for management oversight of the Hazardous Waste Branch. Responsibilities include

planning, budgeting, coordinating and overseeing completion of the Branch's responsibilities, and general personnel management for the Branch.

Program Manager I (PMI) - Currently the HWMB is divided into two groups, (Compliance, Monitoring and Development (CMD Group), and Permitting (TSD Group)). Each group is managed by a PMI. The PMI for the CMD Group is responsible for overseeing staff activities associated with hazardous waste generators, transporters and transfer stations. In addition, the PMI oversees program development aspects of regulatory adoption and authorization.

The PMI for the TSD Group is responsible for overseeing staff activities related to facility permitting, corrective action and compliance monitoring.

In addition, each PMI is responsible for planning, coordinating and overseeing completion of recommendations, and general personnel management of their respective group.

#### Technical

Environmental Scientist (ES) - Number of staff members in this position - 6. Environmental Scientists are responsible for the scientific aspects of compliance, monitoring, permitting, closure, corrective action and program development activities. Specific responsibilities include completion of facility-compliance assessments, review of facility investigative work plans and reports, and development of statutes and regulations.

Environmental Engineer (EE) - Number of staff members in this position - 3. Environmental Engineers are responsible for the engineering aspects of compliance monitoring, permitting, closure, corrective action and program development activities. Specific activities include completion of facility compliance assessments, review of facility permit applications, remedial action work plans and reports, and development of statutes and regulations.

Hydrologist (HYD) - Number of staff members in this position - 1. The HWMB Hydrologist is responsible for the hydrogeologic aspects of compliance monitoring, permitting, closure, corrective action and program development activities. Specific activities include completion of facility compliance assessments, review of facility investigative work plans and reports, and development of statutes and regulations.

Environmental Enforcement Officer (EPO) - Number of staff members in this position - 1. The Environmental Enforcement Officer, assigned to the Environmental Enforcement Branch, investigates initial hazardous waste complaints, especially those complaints dealing with releases or abandonment. Specific activities include both civil and criminal investigations. The EPO, during normal activities, will investigate and/or recommend that the HWMB conduct compliance evaluations at sites thought to be non-notifiers. The EPO may assist the Branch in conducting compliance investigations.

#### Administrative Support

Senior Secretary (SSEC) - Number of staff members in this position - 1. The Senior Secretary, assigned to the Branch Program Manager II, is responsible for coordinating the completion of Branch administrative activities.

Secretary (SEC) - Number of staff members in this position - 2. The Secretaries assigned to the TSD and CMD Program Managers and their related work groups are responsible for completion of administrative and support activities as assigned. One secretary is also responsible for processing FOIA requests received by the Branch.

Mini-micro Specialist (MMS) - Number of staff members in this position - 1. The Mini-micro Specialist is responsible for the data management systems operated by the Branch. Specific responsibilities include data entry, software development, hardware maintenance, and general integration of the systems.

## B. Funding

Budget requirements for the Hazardous Waste Management Branch are currently acquired from three sources.

- Non-appropriated Special Funds (NSF) Federal Grant
- General Funds (GF)
- Appropriated Special Funds (Fees or ASF)

The following table summarizes the current branch positions and their funding source.

STAFFING AND FUNDING SOURCES				
POSITION TITLE	POSITION #	1999 (ACTUAL)	2000 (PLANNED)	2001 (PLANNED)
Program Manager II	059360	GF	GF	GF
Program Manager I	061782	NSF	NSF	NSF
Program Manager I	054952	ASF/NSF	ASF/NSF	ASF/NSF
Env. Scientist III	058682	NSF	NSF	NSF
Env. Scientist III	056690	NSF	NSF	NSF
Env. Scientist III	08355	NSF	NSF	NSF
Env. Scientist II	056689	NSF	NSF	NSF
Env. Scientist II	061677	ASF	ASF	ASF
Env. Scientist I	064882	ASF	ASF	ASF
Env. Engineer III	08318	NSF	NSF	NSF
Env. Engineer III	054951	NSF	NSF	NSF
Env. Engineer III	08330	NSF	NSF	NSF
Env. Engineer I	NEW	NSF	NSF	NSF
Hydrologist IV	08354	GF	GF	GF
Env. Pro. Officer II	053562	ASF	ASF	ASF
Sr. Secretary	061781	ASF	ASF	ASF
Secretary	08315	NSF	NSF	NSF
Secretary	083130	NSF	NSF	NSF
Mini Micro Spec. II	64318	.25NSF	.25NSF	.25NSF

The FFY99 the budget consisted of 75% NSF and 25% GF & ASF. As in other states, the HWMB has attempted to reduce its dependency on general fund money through the use of appropriate permit fees and cost recovery.

In future fiscal years the branch will continue to depend on federal funds. In order to expand into new areas of responsibility an increase in federal funds will be required. The HWMB will continue to pursue fee and cost recovery options. (See Attachment 5 - Staffing & Funding)



## V. STATE PROCEDURES

### A. Permitting Procedures

Treatment, Storage, or Disposal Facilities (TSD). Seven Delaware Code and the DRGHW require that all facilities treating, storing, or disposing of hazardous waste obtain a permit prior to the construction and operation of a waste management facility. Permitting requirements are essentially identical to the requirements of the federal program. To accommodate implementation of recently promulgated federal regulations, the State and EPA Region III closely coordinate permitting activities. The following is an overview of the HWMB's permit process:

1. *Siting a New Unit.* Prior to permitting a new hazardous waste regulated unit or prior to making a Class 3 permit modification at an existing unit, the permit applicant must obtain approval for the location of the unit. The applicant must submit a site suitability report that gets reviewed by a committee appointed by the Department.

The State has developed a guidance document to assist applicants in the siting process.

2. *Initial Permit Application.* One (1) year before a facility's operating permit is expected to expire or the State anticipates making a permit decision for a newly regulated facility, the State will provide guidance to the facility and request submittal of a Part B application. Permitted facilities are required to submit the application six (6) months prior to expiration of the existing permit; newly regulated facilities are required to submit the Part B within six (6) months after receipt of the submittal request [See 40 CFR 270.10(e) & DRGHW, §122.10(e)].

To aid in obtaining a complete application, the State, EPA, and the facility may meet to discuss the scope of the application to review relevant guidance. This meeting commonly takes the form of an initial site visit.

3. *Completeness and Technical Review.* Upon receipt of the permit application, the State performs a completeness and technical review. In this review, the State identifies those provisions of the application for which the State has no enforceable regulation. The State informs EPA of these provisions and if appropriate provides EPA with a recommendation for consideration. Through cooperative coordination with EPA, a determination of completeness is made. In the event the application is found incomplete, the State will issue a Notice of Deficiency (NOD). Unless special circumstances warrant, the NOD will require submission of additional information within thirty (30) days [See 40 CFR & DRGHW, §124.3(c)].
4. *Enforcement.* If the applicant fails or refuses to correct the deficiencies cited in the NOD, the State and EPA may jointly deny the permit and take appropriate enforcement action.
5. *Draft Permit.* If the application is found complete the State will prepare a draft permit for public notice.
6. *EPA Review.* If the permit is being jointly issued with EPA then the State the State will supply EPA a copy of the draft permit for review during the public comment period. If a permit is issued solely under State authority then the State will send EPA a courtesy copy of the permit following permit issuance.

7. *Joint Public Notice.* The State performs the distribution of the public notice. Distribution includes mailing a copy of the draft permit to the applicant and informing interested state and federal agencies, as well as the public, that a draft permit has been prepared and is available for review and comment. The period allowed for public comment is a minimum of forty-five (45) days. The State may also schedule a public hearing during the public comment period [See 40 CFR and DRGHW, §§124.10 and 124.12].
8. *Response to Comments.* Upon closure of the public comment period, the State considers all comments made during the public notice period in making a final permit determination. In response to the comments raised, the State prepares a response document reviewing the State's considerations and identifying changes to the draft permit, if any.
9. *Permit Determination.* The State determines the final conditions of the permit and then the permit determination is made. A signature page, delineating the State's enforceable authorities, is forwarded to the State's signature authorities. The State's enforceable conditions become effective upon signature.
10. *Permit Appeal.* The EPA and State appeal process proceeds independently in accordance with applicable state or federal regulations. Environmental permits issued by the State may be appealed before the Environmental Appeals Board (EAB) in accordance with the provisions of 7 Delaware Code, Chapters 60 and 63, §§6007, 6008, 6009, and 6313 respectively. The EAB is a quasi-judicial review board that was created to hear appeals of decisions of the Secretary. The Board consists of seven Delaware residents, appointed by the Governor with the advice and consent of the Senate.

A request for an appeal before the Board must be submitted to the Secretary in written form and detail concisely the interest which has been substantially affected; an allegation that the decision is improper; and the reasons why the decision is improper. The statement must be accompanied by a deposit of \$40.00 to defray any costs.

11. *Modifications to Permits.* Permit modifications are divided into three classes; Class 1, 2 and 3.

Modifications within Classes 1 and 2 are those which do not substantially alter existing permit conditions in everyday facility operations. Class 3 modifications substantially alter a facility's operating practices.

Class 1 modifications cover the correction of small errors in a permit, routine changes, or records. (For the most part these changes do not require prior Department approval). The permittee must notify the Department of the change of permit condition and the necessity for such a change. The permittee must also notify persons on the facility mailing list within 90 days of making the modification. The facility mailing list is available from the Department. For those Class 1 modifications requiring prior approval, the facility must notify the Department by certified mail requesting approval. Once approval has been granted by the Department, the facility must proceed as above.

Class 2 permit modifications cover changes that are necessary to allow the facility to operate under the constraints of common variations in the types and quantities of waste managed, changes in technologies, or regulatory changes which can be implemented without substantially altering the design specifications or management practices set forth in the facility permit.

In order to make a Class 2 modification, the permittee is required to submit to the Department a request for modification that describes the changes to be made. The request must include supporting documentation and justification for the requested Class 2 change. The permittee must also notify persons on the facility mailing list and publish a notice in a local newspaper. A copy of the permit modification request and supporting documents is made available for public inspection, usually through the Department.

Within 90 days of receiving the Class 2 modification request the Department will either approve the request, with or without changes, or deny the request.

Class 3 modifications are utilized to cover changes that significantly alter facility operations. The facility must submit a modification request to the Department identifying the change or changes to be made to the permit, explaining why the change is necessary and supporting the Class 3 modification. The facility is encouraged to consult with the Department prior to this submittal.

The facility must also notify persons on the mailing list and publish a notice in a local newspaper. A public hearing must be held not fewer than 15 days after and not more than 15 days before the end of the comment period. At the conclusion of the comment period, a draft permit modification is prepared. The draft permit modification is public noticed allowing a 45 day comment period. A public hearing will be held if requested. The permit modification will then be issued or denied.

## **B. Corrective Action**

The corrective action program applies to all owners/operators of hazardous waste facilities. Requirements for owners/operators of solid waste management units (SWMU) at permitted facilities are found in DRGHW, §264.101. The goals of Delaware's corrective action program is to ensure each facility achieves success in meeting the environmental indicators of "Human Exposures Under Control", and "Ground Water Releases Under Control" as defined by the Environmental Protection Agency pursuant to the Government Performance and Results Act.

Facilities known to be subject to corrective have been ranked by EPA Region III using the NCAPS ranking system. At newly discovered or newly regulated facilities the HWMB will use all of the available information regarding the site to determine if the environmental indicators established for the RCRA corrective action program have been met. If it is determined by the HWMB that the environmental indicators for the program have been met, then the HMWB will give the site a lower priority and determine appropriate future actions on a site by site basis.

The corrective action process will be implemented in four phases. These phases are: RCRA Facility Assessment (RFA); RCRA Facility Investigation (RFI); Corrective Measures Study (CMS); and Corrective Measures Implementation (CMI). It is important to note that Stabilization Measures and/or Interim Measures will be used at any time in the process to achieve success in meeting the environmental indicators at a site. Each phase of the corrective action process contains a number of steps that vary in complexity depending on the extent and severity of releases identified at a hazardous waste facility. The goals of the corrective action process are to:

- identify SWMUs and collect information on contaminant releases;
- identify any need for further investigation; and
- determine the course and degree of any corrective action necessary to correct the release.

Based on the findings of these activities the HWMB will specify clean up levels and points of compliance, chose a remedy to be implemented at the facility and finalize a facility Clean Up Action Plan. To monitor the progress of the investigation and clean up, the HWMB will require the facility to submit periodic progress reports. In addition, the HWMB will conduct periodic site assessments to monitor continued compliance with the approved work plan to gauge compliance and remedy performance. Corrective action activities will be considered complete when the site specific clean up standards and the environmental indicators for the corrective action program have been met.

### **C. Closure Procedures**

Each facility must have an approved closure plan which meets the regulatory requirements, including the closure performance standard outlined in DRGHW Parts 264 and 265, §§264.111 and 265.111. The Department has prepared a Closure Plan Guideline document which outlines format, deliverables, and the administrative review process.

Permitted facilities have an approved closure plan as a portion of the issued permit. Permitted facilities must notify the Department at least 180 days prior to the expected commencement date of closure.

Facilities operating under interim status must notify and submit their closure plans at least 180 days prior to their expected day of closure. The Department will either approve the submitted closure plan or issue a Notice of Deficiency (NOD). The permittee has 30 days to correct the cited deficiencies. Should that response be unsatisfactory, the Department may modify the plan. This plan then becomes the approved closure plan.

Facilities are required to remove all hazardous waste from waste management units addressed in the plan within 90 days of approval of the facility closure plan or receipt of the final volume of hazardous waste. The facility then has an additional 90 days to complete closure. Under certain conditions, the Department may issue an extension to the 180 day period.

### **D. Permitting Procedures - Transporters**

Seven Delaware Code, Chapters 60 and 63, and DRGHW, Part 263 requires all transporters of hazardous waste to obtain a permit from the Department. This requirement is broader in scope than the federal program and is funded through non-federal funding.

The following is an overview of the permit process:

1. *Completeness Review.* When an application for a transporter permit is received, it is reviewed for completeness and content. In the event that an application is determined to be deficient, a Notice of Deficiency (NOD) will be issued. In most cases, the applicant will be required to correct the deficiencies or submit additional information within thirty (30) days.
2. *Public Notice.* Applications for transporter permits are placed on public notice for 15 days in accordance with 7 Delaware Code, §6004. A public hearing may be held on any application if a meritorious request for a hearing is received within the specified time frame as advertised in the public notice. The Department may also hold a public hearing if it has been determined to be in the best interest of the State.

3. *Permit Determination.* After the completeness review, background check and public notice period, if an application successfully satisfies all requirements, a permit is issued.
4. *Enforcement.* If the applicant fails or refuses to correct deficiencies cited in a NOD, the State may deny the permit and take appropriate enforcement action.
5. *Appeal.* In the event a permit is denied, the applicant may appeal the denial in accordance with the provisions of 7 Delaware Code, Chapter 60.

#### **E. Notification**

All hazardous waste generators (i.e. generators of greater than 100 kilograms of hazardous waste, or 1 kilogram of acutely hazardous waste, in a calendar month) and owners/operators of hazardous waste treatment, storage and disposal facilities are required to notify the state of their hazardous waste activity. The regulated community must submit to the Delaware Department of Natural Resources and Environmental Control, Hazardous Waste Management Branch (HWMB) notification of hazardous waste activities (pursuant to 7 Delaware Code, Chapter 63, §§6306(a) and/or 6307(a) and one or more of the citations within the DRGHW, §§262.12, 263.11, 264.11 and 265.11.)

Notifications are submitted on the current Notification of Regulated Waste Activity Form (NRWAF) (EPA Form 8700-12). Completed NRWAF's are submitted to the HWMB. Each NRWAF is stamped with the date of receipt. The forms are then reviewed for completeness. The notifier is contacted for minor changes or clarifications as needed. In the case of a major correction or the necessity to incorporate missing information, the NRWAF is returned to the notifier.

Upon receipt of a satisfactorily completed NRWAF, the HWMB tracks form processing by entering into a logbook by company name, date received, and type of notification (first or subsequent). Utilizing the RCRIS Identification Number module, the HWMB enters the information from the submitted NRWAF into the RCRIS system to generate the site specific identification number. Once generated, the issued identification number is written on the notification form and the HWMB prepares and forwards to the notifier a verification of the issued identification number. This verification is supplied on EPA Form 8700-12B. The HWMB records the issued identification number along with the date of issuance in the aforementioned logbook. As the manifest tracking system does not interface with the RCRIS handler database, the notifier information is manually incorporated into the handler database of the manifest tracking system. Once incorporated, the original NRWAF and the issued verification are incorporated into HWMB files.

The HWMB also issues State of Delaware provisional identification numbers for one time emergency shipments of hazardous waste. A provisional identification number may be obtained by contacting the HWMB by phone and providing information as to the generator, generator site, type and amount of waste generated, the Delaware permitted transporter to be utilized, and the name and location of the designated TSD facility. It is also necessary for the generator to complete a Notification of Regulated Activity Form (EPA Form 8700-12) and submit the completed form to the HWMB within ten days of the issuance of the provisional number. Once the completed NRWAF form is returned to the HWMB, the form is incorporated into the HWMB generator files.

In order to input RCRIS data pertaining to compliance assessments conducted at non-notifiers, the HWMB has created a Non-Notifier Tracking Form. The form is completed by the



appropriate HWMB technical staff member following the completion of the compliance assessment and consists of basic information about the handler such as: name, address and contact information; does the facility handle hazardous waste; and what handler universe the facility should be placed in. This information is then entered into RCRIS to generate a handler identification number. Once the number has been generated the compliance assessment data can be entered into RCRIS. (See Attachment 6 - Notification of Regulated Waste Form and Non-Notifier Tracking Form)

#### **F. Manifest Procedures**

Delaware has adopted the EPA Uniform Hazardous Waste Manifest Form (EPA form 8700-22, Rev 9-88) as its own. An out-of-state generator uses the Delaware manifest form when its hazardous waste is shipped to the single Delaware TSD facility accepting off-site hazardous waste. An in-state generator uses a Delaware manifest form when the state where the receiving TSD is located can not supply a manifest form. The State's manifest program is more stringent than the federal program by requiring the shaded areas on the manifest to be completed.

The Delaware Hazardous Waste Management Branch receives approximately 100 copies of manifests daily. One part of the manifest consists of copy 7 which the generator sends to the Branch informing that hazardous waste has been shipped off-site. The other part consists of copy 2 which the receiving TSD facility sends detailing receipt of waste. Usually within a day, all of the data on each manifest copy received is entered into our Manifest Tracking System. This process reveals incorrect Delaware generator ID numbers and manifest copies with missing information. Personal contact is then initiated with the generator to amend these deficiencies. (See Attachment 7 - Uniform Hazardous Waste Manifest)

#### **G. Annual Report Procedures**

The *Delaware Regulations Governing Hazardous Waste* (DRGHW, §262.41) require large quantity generators (those generating greater than 1000 kilograms of hazardous waste or more than 1 kilogram of acutely hazardous waste) per calendar month, and treatment, storage and disposal facilities to comply with an annual reporting requirement. Therefore, the requirements of DRGHW, §262.41 are more stringent than the corresponding federal requirements.

The State utilizes EPA forms 8700-13 and 8700-13A for submittal of annual reports.

In late December of the reporting year, the HWMB mails a copy of the report instructions and forms to each in-state large quantity generator and/or TSDF. Completed reports are due on or before March 1 of the succeeding year. Upon receipt, the HWMB reviews each report for completeness and correctness. Incomplete or incorrectly completed forms are returned to the generator/TSDF. Failure to submit a completed report by March 1 will lead to the issuance of an enforcement letter.

Prior to 1995, annual report data collected during an EPA required biennial reporting year was placed directly into BRS, while non-reporting year data was placed into a state maintained database file. Beginning in 1995, biennial reporting data will be entered into the new MTS/Annual reporting System and will be translated into the BRS database. The HWMB will enter the data collected during annual reporting years into the same state maintained database. The MTS/Annual reporting Systems affords the HWMB the ability to electronically compare the collected annual report data with manifest data received by the State. The State retains in hard copy all submitted annual report forms.

## H. Compliance Assessment Procedures

Potential hazardous waste violations are identified via routine compliance assessments and/or through citizen complaints. Compliance assessments are conducted by the HWMB at LQG, SQG, Conditionally Exempt Small Quantity Generator (CESQG), Non-notifiers and TSD facilities on a routine basis averaging about 2 to 4 per month during the course of the year.

The HWMB has developed a Compliance Assessment Manual to assist staff members to adequately prepare for, and conduct, compliance assessments of hazardous waste generators efficiently and professionally, and to prepare quality assessment reports. The compliance assessments are conducted following the procedures discussed below.

1. *Pre-Assessment Procedure.* Manifest Review: HWMB staff responsible for the compliance assessment reviews the hazardous waste manifests in the DNREC files for the subject generator or facility. A compilation of all manifest data for a period covering three years prior to the assessment is prepared. Any manifest discrepancies and detected inaccuracies are flagged. Also, as part of the manifest review, waste shipments are compiled according to waste stream types, quantity, shipment dates and destinations.

From the manifest compilation and review HWMB staff determine the following:

- generator status - LQG, SQG or CESQG;
  - hazardous waste shipments for which the Department has received a generator signed copy but has not received a signed copy of the manifest from the receiving facility (TSD);
  - the wastes shipped off in bulk rather than in containers. This indicates the generator may have an accumulation tank;
  - those shipments of hazardous waste which the generator has exported;
  - those shipments of hazardous waste which took longer than 45 days to arrive at the TSD and for which the Department has not received an exception report;
  - those waste streams that are shipped out less frequently than every 90 days (for LQG) or less frequently than 180 days (for SQG);
  - those waste streams which appear to have ceased and those which appear to have started and the differences in waste codes;
  - shipments of hazardous waste which appear to have been generated by spills resulting in contaminated soils or absorbent materials;
  - differences in the generator's waste description and the description by the receiving TSD as recorded in the discrepancy indication space;
2. *Annual Report Review.* For large quantity generators (LQG), the HWMB staff member conducts a detailed review of the most recent annual report and determines the following:
    - completeness of annual report submitted by generator;
    - differences in the amounts shown on the manifests and annual reports;
    - potential for Subpart CC related waste streams.
  3. *Permit Review.* For generators which are also permitted or interim status TSDs, HWMB staff review the permit or permit application (for interim status facilities) and updated financial assurance submissions and determines the following:
    - types and numbers of permitted units;

- types of wastes which are permitted for those units;
- financial assurance inadequacies regarding closure or post-closure care.

4. *State Files.* For any generator, HWMB staff review past compliance assessment checklists, past compliance assessment reports and past enforcement actions. Air and water pollution agency files for the company are reviewed regarding waste streams from pollution control equipment. Also reviewed are data from Hazardous Chemical Inventory Reports (Tier I, Tier II) and Toxics Release Inventory Reports. For sites discharging to publicly owned treatment works (POTWs) or holding permits under the National Pollutant Discharge Elimination System program, these permits and any accompanying file data are reviewed.

From this HWMB staff determine the following:

- origins of the various waste streams;
  - what safety and technical equipment may be necessary to conduct the inspection;
  - previous violations.
5. *On-site Record Review.* HWMB staff will request the site representative explain the manufacturing processes and describe the safety equipment needed while on the plant premises. Details are sought regarding the potential generation of hazardous waste from any of the following: solids build-ups in closed loop systems, unconverted reactants, contaminate solutes in phase separations and spent filter mediums.

For all generators, manifests and associated Part 268, §268.7(a) land ban notifications and certifications are reviewed to ensure compliance with Part 268 requirements. HWMB staff obtain all copies of all TSD signed manifests and exception reports which may be missing from DNREC files. For LQGs with annual reports showing wastes not appearing on manifests in the DNREC files, HWMB staff obtain copies of those missing manifests. For wastes shown on manifests in the DNREC files but not on the annual report, an understanding is reached on how the annual report needs to be amended. For LQGs and TSDs, training and inspection records are reviewed on-site. A copy of the contingency plan is obtained for a post-inspection review. For TSDs, copies of financial assurance documents, if they supersede documents previously reviewed, are obtained for post-assessment review. If manifests or the annual report demonstrate the generator exports hazardous wastes, copies of documentation required by Part 268, Subpart E, are also obtained for post-inspection review. If there is a hazardous waste accumulation tank, copies of the documentation required by Part 265, Subpart J are obtained for post-assessment review.

From review of on-site records, HWMB staff determines:

- processes which might generate hazardous waste but do not appear on manifests or annual reports;
- all hazardous waste accumulation tanks;
- proper safety equipment for the outside inspection;
- inadequate annual reports and missing land ban notifications.
- compliance with recordkeeping requirements for EPA notifications of intent to import/export hazardous waste;
- compliance with hazardous waste determination requirements for TCLP wastes;
- compliance with land disposal restrictions requirements;
- waste streams subject to Subpart CC compliance standards.

6. *Outside Assessment.* HWMB staff are accompanied by site personnel on a walk-through of the process areas. Particular attention is given to those areas or processes which might generate hazardous waste but do not appear on the manifests or annual report. Manifests sometimes reveal that waste streams are shipped out less frequently than the time allowed for on-site accumulation. While at the process which generates such a waste stream, HWMB staff determine if waste generation is continuous and therefore the time allowed on site is exceeded, or if occasional, the time allowed is not exceeded. During the walk-through HWMB Staff also confirm any spill sites that may have generated manifested off site shipments of hazardous waste.

While at hazardous waste accumulation areas or permitted units, compliance assessment checklists are completed. For TSDs, permit conditions specific to the unit such as allowable waste codes and allowable amounts are checked. There are separate generator checklists for LQG container accumulation areas, LQG tank accumulation areas, SQG container accumulation areas, SQG tank accumulation areas and for satellite accumulation areas.

7. *Post-Assessment Office Review.* HWMB staff review all documentation obtained during the assessment to determine compliance with appropriate requirements.
8. *Ground Water Assessments.* CME and O&M assessments are conducted to evaluate the adequacy of ground water monitoring systems utilized at land disposal facilities.

The CME assessment determines adequate design and operation of GW monitoring systems to detect releases and to define the rate and extent of contaminant migration from a regulated unit.

The O&M assessment is conducted to determine how ground water monitoring systems are being operated and maintained. The O&M assessments will be conducted at a minimum of every three years.

## **I. Enforcement Procedures**

The Division's enforcement process begins with compliance monitoring (identification of violations), classification of definitive violations and non-compliance, followed by the issuance of an appropriate enforcement action. The State takes timely and appropriate enforcement actions as defined in accordance with the EPA "Enforcement Response Policy (ERP)" dated March 15, 1996 and the "Non-Compliance Response Policy" against all persons in violation of generator and transporter standards (including manifest requirements), facility standards, permit requirements, compliance schedules, and all other program requirements.

1. *Classification of Violations and Non-Compliance.* Violations identified during investigations are classified by seriousness of the offense and previous site history.

Delaware continues to classify violations into categories. Class 1 violations are those violations which could result in a failure to:

- assure that hazardous waste is destined for and delivered to authorized treatment, storage or disposal facilities; or
- prevent releases of hazardous waste or constituents, both during the active and any applicable post-closure periods of the facility operation where appropriate; or
- assure early detection of such release; or
- perform emergency clean-up operation or other corrective action for releases.

Class 2 violations are defined in the negative. They include all violations that are not considered Class 1.

In addition, Delaware identifies classes of non-compliance. Facilities causing or significantly contributing to the likelihood of a release or exposure to hazardous waste or its constituents; are chronically in violation or recalcitrant; are in substantial deviation from statute or regulatory requirements, or the terms of an issued permit, order or agreement are considered Significant Non-Compliers (SNCs). Violations not found to meet the criteria are considered Secondary Violators (SVs).

2. *Appropriate Actions.* Upon identification and classification of violations and non-compliance, the level of enforcement is chosen. SNCs are subject to formal enforcement actions, whereas SVs are subject to informal actions. The various levels of enforcement include the following:

- |                          |                 |
|--------------------------|-----------------|
| a) Notice of Deficiency  | [§6309(a)(1)];  |
| b) Letter of Warning     | [§6309(a) (1)]; |
| c) Notice of Violation   | [§6309(a)(1)];  |
| d) Secretary's Order     | [§6309(a) (1)]; |
| e) Civil Action          | [§6309(b)];     |
| f) Criminal Action       | [§6309(f)];     |
| g) Imminent Hazard Order | [§6308].        |

Typically, levels (a) through (c) are issued by the Hazardous Waste Management Branch. The more advanced administrative order (d) is issued by the Secretary after consultation with the HWMB and the Attorney General's Office. Civil actions are referred directly to the Attorney General's Office for a temporary restraining action, or preliminary or permanent injunction. Criminal actions are investigated by the EPO Office and prosecuted by the EPOs and Attorney General's Office.

Delaware has provided, through 7 Delaware Code, Chapter 63, §6309, a review process for any decision or action (including enforcement actions and statutory/regulatory changes) taken by the Secretary that substantially affect any member of the regulated community. The review process allows an appeal by the appellant to the Environmental Appeals Board (EAB) on any decision or action taken by the Secretary. This includes any duly promulgated regulation or enforcement action. The appellant may then appeal to the Superior Court within 30 days of the EAB decision.

#### **J. Availability of Information Procedures**

1. *Disclosure of Information.* On August 29, 1988, the Division adopted pursuant to 7 Delaware Code, Chapter 63, §6304(c), the Hazardous Waste Disclosure Regulations. The procedures followed by the Division are discussed below.

All requests for records which are of general public interest are available to the public unless the records are exempt from disclosure. Examples of a general public document include:

- the *Delaware Regulations Governing Hazardous Waste*;
- documents which are on public notice;
- Press Releases;
- listings of State identified hazardous waste generators, transporters, TSD facilities;
- pamphlets and educational materials.



All requests for information not listed above must be made in writing. Upon receipt, the written request is processed by the Division's legal assistant. Typical requests would include review of an entire or portion of a generator, transporter or TSD file.

2. *Confidential Business Information (CBI)*. Pursuant to Section 5.03 of the Delaware Hazardous Waste Disclosure Regulations, claims of business confidentiality must be asserted by a person claiming confidentiality, or the State may release the information without further notice to the person. Upon submission of a written CBI claim, the Division's legal assistant reviews the validity of the claim using criteria set forth in section 5.03 of the Hazardous Waste Disclosure Regulations. A valid claim is properly designated with a CBI stamp and filed in a confidential file. The confidential file is only accessible to employees of the Division of Air and Waste Management. (Note: All employees of the Division are advised of the CBI procedures upon starting employment with the Division.)

#### **K. Variance, Waivers, and Delisting Procedures.**

##### Petitions for Delisting

Pursuant to the *Delaware Regulations Governing Hazardous Waste*, §260.22, a person may petition the Secretary to delist a hazardous waste. Following is an overview of delisting procedures.

1. Those interested in submitting a petition to delist a hazardous waste are afforded the opportunity to meet with representatives of the Department to discuss petition applicability, procedural and technical requirements.
2. Upon application to the Secretary, the State performs a completeness review to determine the adequacy of the petition, including submission of documentation appropriate to support claims that the waste is eligible for delisting. In the event the petition does not contain the information necessary to support the delisting, the petition is returned to the petitioner.
3. Upon receipt of a complete application, the State conducts a technical evaluation to determine if submitted documentation adequately demonstrates the petitioner's claim for delisting. The waste is not to contain chemical constituents or hazardous waste characteristics which would cause the waste to be hazardous or present a threat to human health and the environment if the petition is granted.
4. The Secretary will make a tentative decision to grant or deny the petition. The tentative decision is public noticed.
5. The public may request a hearing. When requested, a hearing is scheduled and public notice of the hearing made.
6. After weighing public hearing testimony, if any, the Secretary makes a final decision for granting or denying the petition. A copy of the final decision is immediately forwarded to EPA Region III.
7. The Secretary's final decision is sent to the applicant and any person affected by the decision, including those who have provided written or oral comment.
8. The Secretary's final decision for any petition may be appealed.

## Variances

The following procedures apply for the evaluation of a requested emergency and non-emergency variance provided for in the *Delaware Regulations Governing Hazardous Waste Section* (DRGHW).

1. Upon application to the Secretary for any emergency or non-emergency variance, the State performs a completeness review to ensure submission of documentation supporting each of the variance elements provided for by statute and regulation. In the event submitted information is incomplete, the application is returned to the requester.
2. Upon receipt of a complete application, a copy is sent to the Office of the Attorney General (AG) for review. Concurrently, a technical evaluation is made to determine the appropriateness of the request and if submitted documentation offers adequate justification and support of the variance elements.
3. Technical staff meet with the AG to discuss the merits of the request. When evaluating a request, the State ensures that approval of the request will maintain equivalence with the federal program.
4. For an emergency variance, the Secretary makes a decision to grant or deny the request. The decision is effective immediately. A granted emergency variance is public noticed, and a copy of the granted emergency variance immediately forwarded to EPA Region III. For a non-emergency variance, the Secretary makes a tentative decision to grant or deny the request.
5. In the event the variance or emergency variance is denied, the Secretary notifies the requesting party. The Secretary's denial may be appealed.
6. For a non-emergency variance where the Secretary has made a tentative decision to approve the request, public notice is made. The public may request a hearing. When requested, a hearing is scheduled and public notice of the hearing made.
7. Prior to making a final ruling on a non-emergency variance, the Secretary will weigh public hearing testimony, if any, and make a final decision to grant or deny the variance. A copy of the granted non-emergency variance is immediately forwarded to EPA Region III.
8. The Secretary's final decision for any non-emergency variance is sent to the requesting party and any person affected by the decision, including those who have provided written or oral comment.
9. The Secretary's final decision for any emergency or non-emergency variance may be appealed.

## VI. IMPACTS OF REVISIONS

### A. Newly Regulated Handlers

While land disposal restrictions have added new wastes and the new BIF requirements have added new requirements, the hazardous waste management program has not seen any increase in new handlers not previously regulated. One handler, a permitted TSD facility, is

identified to have a unit that would be subject to the new BIF requirements. An Environmental Engineer is assigned to deal with BIF issues at this facility. As a result of these new requirements the HWMB added an additional Environmental Engineer to help ease the burden of the additional workload.

Since Delaware does not have any commercial treatment, storage or disposal facilities that receive wastes subject to LDR, no significant additional burdens have been placed on current staff workloads as a result of the new requirements.

Since approval of Revision 1 in 1996, Delaware's regulated universe has increased dramatically due to the new small quantity generator requirements, and marketer, blender and burner requirements adopted since 1986 and from a natural growth in new businesses being established in the State. To ensure that staff members are adequately trained to meet the needs of the new requirements, the HWMB participates in training when offered by EPA as well as in-house training when available.

The broader scope of the revised regulations has forced the State to actively identify new handlers. The following mechanisms have been implemented in order to identify new handlers.

**SQG Identification - Workshops**, targeting the SQG are routinely conducted by the HWMB. The HWMB conducted the first SQG workshop in 1986. Workshops continue to be conducted with efforts in 1991 and again in 1995. Education focused on dry cleaners in 1991 and auto body/maintenance companies in 1995. In order to capture a large audience, the HWMB worked with product suppliers and trade associations to encourage attendance.

**LQG/SQG Identification - Universe comparisons of WWTP dischargers and generator universe.**

**Mixed Waste Generator Identification - Universe comparison of low-level radioactive waste generators to hazardous waste generators.** Currently there are only 4 mixed waste generators in the state.

The HWMB continues to identify new handlers through targeting businesses suspected of generating hazardous waste, referrals from other State agencies, citizen complaints, or discovery by HWMB staff during routine compliance assessments. Compliance assessment priorities are negotiated yearly in the Annual Work Plan. Currently there are no commercial TSDFs operating in the state.

The increase in the regulated universe has obviously increased HWMB compliance assessment and analysis workload. Assessments in 1986 averaged 10 - 15 per year while in 1995 34 LQG/SQG, 8 TSD, 5 multimedia, 2 used oil handler, 4 CEG and 4 non-notifier assessments were conducted. In addition, work years expended on an individual assessment have increased due to the following factors:

- Completion of facility-wide assessments opposed to waste stream assessments;
- Completion of thorough reviews of in-house paperwork prior to conducting the compliance assessment (see section IV H. Compliance monitoring procedures);
- Completion of the land ban portion of the assessment.

The increased workload in the compliance monitoring area has been managed via new staff, new training initiatives, and a more streamlined and comprehensive assessment process. (See section V. H. Compliance Assessment Procedures).

## B. Data Management

The increased number of generators in the systems and the nature of some new requirements have necessitated the development of three new computerized databases.

1. *RCRIS*. On May 24, 1991, the State of Delaware was placed into full production for the RCRA Information System (RCRIS). Delaware was the first state in Region III to accomplish full implementation.

The State tracks generator compliance, monitoring, enforcement and TSD permitting activities through the RCRIS database. Use of the RCRIS database occurs through the RCRIS Memorandum of Understanding (MOU) which will be reviewed at least once a year during preparation of the annual State work plan in accordance with the Memorandum of Agreement (MOA). Data elements and database responsibilities and procedures are defined through the RCRIS Implementor of Record (IOR).

2. *Manifest Tracking System*. All manifest data is data entered into a computerized manifest tracking system, originally developed in 1987 and thoroughly upgraded in 1995. The system is designed to QA/QC manifest information, compile generation reports and electronically compare manifest data with annual report data.
3. *Annual Report/Biennial Report System (BRS)*. With the receipt of the 1989 Annual Report information, Delaware began usage of the EPA designed BRS computer software. In 1995 the HWMB developed, in conjunction with the MTS, an annual report/biennial report database. The database affords the HWMB simplified access to report generation and data manipulating and provides a comparison between submitted annual report data and submitted manifest data. Accuracy of annual report data is essential to the HWMB as the data are important in predicting trends in hazardous waste management. With the advent of the HWMB's annual report/biennial report database, Delaware became a translator state, downloading data from the state system into EPA's mainframe.

## VII. ESTIMATED REGULATED ACTIVITIES

<u>ACTIVITY TYPE</u>	<u>ESTIMATED NUMBER OF NOTIFIERS</u>		
	1985	1995	1998
Generators (Total)	80	1036	1164
SQG	0	549	559
LQG	80	117	117
CESQG	0	370	488
TSDs* (Total)	18	13	9
Permitted	0	10	8
Interim Status	0	3	1
Transporters	15	67	70

\*Currently, there are no permitted commercial treated, storage and/or disposal facilities operating in the State.

There have been no substantial increases in the generator universe based on changes covered in this Revision 3 Application. Changes that have occurred are the result of new handlers to

the program and not because of the addition of new program requirements, such as LDR, BIFs, organic air emission standards, etc.

Estimated quantities of hazardous waste managed in Delaware, based on the most recent data compiled from the 1997 Biennial Report, are:

- 19,864 tons of hazardous waste generated within the State;
- 1,620 tons transported into the State;
- 17,887 tons transported out of the State;
- 1,436 tons managed within the State;
- 158 tons managed off-site within the State.

Quantities indicated do not include waste generated by Small Quantity and Conditionally Exempt handlers or waste waters.

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