

Report to the
Environmental Review Commission
North Carolina General Assembly

Hazardous Waste Management Plan

JULY 1, 2008



Hazardous Waste Section
Division of Waste Management
www.wastenotnc.org

North Carolina Department of Environment and Natural Resources

Michael F. Easley
Governor

William G. Ross Jr.
Secretary
Department of Environment and Natural Resources

Dexter R. Matthews
Director
Division of Waste Management

DENR
Division of Waste Management
Hazardous Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646
(919) 508-8400

Table of Contents

Executive Summary

1.0	Introduction.....	1
2.0	North Carolina Hazardous Waste Section.....	1
3.0	Hazardous Waste Generation and Management.....	2
4.0	Hazardous Waste Reduction Initiatives.....	4
	A. Commitment to Waste Minimization.....	4
	B. Environmental Stewardship Initiative.....	4
	C. Mercury Switch Removal.....	5
5.0	Other Activities.....	5

Executive Summary

The State of North Carolina's Solid Waste Management law requires the Department of Environment and Natural Resources (DENR) to develop a hazardous waste management plan for the state and revise it on or before July 1 of even-numbered years. (N.C.G.S. 130A 294(i)). The first plan was published in July 1990 and has been revised at two-year intervals. The 2008 plan summarizes the activities of the North Carolina Hazardous Waste Section to ensure safe management of hazardous waste and to encourage waste minimization, reuse and recycling. Major activities include implementing and enforcing the hazardous waste regulatory program, conducting workshops and providing technical assistance in waste reduction and recycling, soliciting participants in the Environmental Protection Agency's National Partnership for Environmental Priorities (NPEP) in order to reduce the use and release of priority toxic chemicals, and continuing efforts to improve compliance and foster waste reduction by small businesses.

1.0 INTRODUCTION

The State of North Carolina's Solid Waste Management law requires the Department of Environment and Natural Resources (DENR) to develop a hazardous waste management plan for the state. The plan is revised on or before July 1 of even-numbered years. (N.C.G.S. 130A 294(i)). The first plan was published in July 1990. This 2008 plan summarizes the North Carolina Hazardous Waste Section's activities to ensure the safe management of hazardous waste and to encourage waste minimization, reuse and recycling.

2.0 NORTH CAROLINA HAZARDOUS WASTE SECTION

The Hazardous Waste Section (HWS) was authorized by the U.S. Environmental Protection Agency (EPA) in 1980 to implement the federal hazardous waste regulatory program under the Resource Conservation and Recovery Act. The HWS has a staff of approximately 50 people working in three branches: Facility Management, Compliance and Programs. Collectively, the three branches undertake the following activities:

- Regulate the management of hazardous waste by generators, transporters, treaters, storers, recyclers and disposers;
- Educate the hazardous waste community by providing technical assistance through individual consultations and seminars that encourage waste reduction, sound recycling, safe management practices and proper disposal (as a last resort);
- Issue permits specifying requirements that each hazardous waste treatment, storage, recycling or disposal facility must meet;
- Provide a continuing compliance presence at commercial hazardous waste management facilities through the HWS Resident Inspector Program;
- Conduct compliance inspections and, in coordination with the North Carolina Office of the Attorney General, take enforcement actions against violators;
- Require groundwater assessments, facility investigations and corrective measures at facilities where hazardous wastes have been released into the environment and
- Ensure section staff receives necessary training and professional development opportunities to continually improve their job performance.

Information on most of the activities above is captured in the national hazardous waste database, Resource Conservation and Recovery Act Information (RCRAInfo). The database is managed by EPA, and most of the data is entered by authorized state personnel. RCRAInfo contains comprehensive information on all facilities that generate or manage hazardous waste within a state, as well as all the HWS's activities affecting these facilities. Data from RCRAInfo will be used to provide information to the Department's Facility Identification Template for States database (FITS) and the Departmental Decision Support System (DSS).

To view RCRAInfo and regulatory information for specific hazardous waste sites, visit <http://www.epa.gov/enviro/>. For details about the Division of Waste Management and the Hazardous Waste Section, visit <http://www.wastenotnc.org/>.

3.0 HAZARDOUS WASTE GENERATION AND MANAGEMENT

Hazardous waste is categorized as either “characteristic,” “listed,” or both. Both waste categories and their attendant subcategories are specifically described in the federal regulations at 40 CFR 261, incorporated by reference in 15A NCAC 13A .0106.

Characteristic waste refers to any solid waste that exhibits a characteristic of ignitability, corrosivity, reactivity and/or toxicity. Waste is considered to have the characteristic of toxicity if it contains any of the 40 specified hazardous constituents in excess of federal standards. The term “listed waste” refers to specific wastestreams that EPA has identified as hazardous based on its investigations of particular industries, as well as certain listed commercial chemical products that are disposed.

The tables on the following page summarize information about North Carolina’s top 10 hazardous waste generators and its top 10 treatment, storage and disposal facilities (TSDFs) in 2005. The source for this data is EPA’s 2005 “Biennial Report of Hazardous Waste Generation.” This is the most recent information available. The 2005 Biennial Report (BR) was posted online in early 2007 and can be viewed at <http://www.epa.gov/epaoswer/hazwaste/data/biennialreport/index.htm>

In 2005, 431 North Carolina large quantity generators (LQGs)¹ generated 384,112 tons of hazardous waste². The top 10 facilities generated 345,069 tons or 90 percent, of the total quantity of hazardous waste generated in 2005. In 2003, 439 North Carolina LQGs generated 78,817 tons of hazardous waste. In 2001, 501 LQGs generated 94,534 tons of hazardous waste and the top 10 facilities generated 32,515 tons.

¹ Large Quantity Generators are defined as facilities that generate 1,000 kg (2,200 lbs.) or more of hazardous waste per month.

² The large increase in waste generated in 2005 was due to a change in reporting procedures by a single generator.

Table 3.1 - Ten largest hazardous waste generators and quantity generated

EPA ID NO.	FACILTY NAME	CITY	TONS
NCD057454670	Elementis Chromium, LP	Castle Hayne	292,956
NCR000011197	Nucor Steel	Cofield	27,904
NCD093340487	Gerdau Ameristeel US Inc.	Charlotte	5,581
NCD061263315	Ashland Distribution	Charlotte	3,946
NCR000012997	Rf Micro Devices Fab 3	Greensboro	2,873
NCD050409150	General Electric Company	Wilmington	2,673
NCD042091975	Mallinckrodt Inc.	Raleigh	2,579
NCD047368642	E.I. DuPont & Co. - Fayetteville Works	Duart Township	2,433
NCD981014749	Cree Durham	Durham	2,143
NCD018652339	Freightliner Trucks	Cleveland	1,981
Total			345,069

In 2005, 50 North Carolina waste management facilities that include treatment, storage and/or disposal facilities reported managing 369,600¹ tons of hazardous waste using various waste management methods. Of these 50 facilities, the top 10 facilities managed 369,600 tons, or 99.0 percent of the total. In 2003, 439 LQGs generated 78,817 tons of hazardous waste, while the top 10 facilities generated 43,610 tons. In 2003, 43 waste management facilities reported managing 20,031 tons of hazardous waste. In 2001, 66 waste management facilities reported managing 39,274 tons, and the top 10 managed 27,441 tons of hazardous waste. Common management methods include solvent recovery, incineration, fuel blending, energy recovery, sludge treatment, stabilization and metals recovery.

Table 3.2 - Ten largest hazardous waste managers and/or TSDFs

EPA ID NO.	FACILTY NAME	CITY	TONS
NCD057454670	Elementis Chromium, LP	Castle Hayne	292,189
NCD065300519	Frmr. Schlage Lock Co.	Rocky Mount	35,170
NCD003195161	AVX Corporation	Raleigh	22,681
NCD980842132	Ecoflo Inc	Greensboro	11,674
NCD042091975	Mallinckrodt Inc.	Raleigh	2,537
NCD986215465	JMC (USA), Inc.	Research Triangle Park	1,508
NCD986166338	Onyx Environmental Services	Creedmoor	1,248
NCD980843866	DuPont – RTP	Durham	924
NCD049773245	Detrex Corp	Charlotte	916
NCD071561864	The Sherwin-Williams Company	Greensboro	753
Total			369,600

¹ The large increase in waste generated in 2005 was due to a change in reporting procedures by a single generator.

Although only LQGs and TSDFs are required to report their hazardous waste generation and management amounts, it is important to note that North Carolina also has 1,952 small quantity generators and 4,547 conditionally exempt small quantity generators¹ doing business in the state. These facilities are not required to report the amount of hazardous waste generated because they are typically small businesses for whom periodic reporting could be overly burdensome. However, these facilities collectively generate a significant amount of hazardous waste that must be managed properly and in compliance with all applicable rules. Significant resources are devoted to compliance and enforcement activities, technical assistance and outreach at these facilities.

4.0 HAZARDOUS WASTE REDUCTION INITIATIVES

A. Commitment to Hazardous Waste Minimization

The HWS continues to work with EPA Region 4 to solicit participants in the National Partnership for Environmental Priorities. This voluntary program fosters partnerships between government and industry to reduce hazardous waste -- especially waste containing any of the 30 chemicals known to be highly toxic. Partners who make significant progress in waste reduction receive national recognition for their achievements.

The North Carolina Hazardous Waste Section has also committed to the following:

- Incorporate pollution prevention training (based on targeted priority chemical waste streams) into its annual generator workshops, industry meetings and enforcement settlement negotiations;
- Review facility requests for alternative management practices for hazardous waste (use/reuse, substitution, reclassification and delisting), and
- Support intervention projects to reduce/eliminate the presence of priority chemicals via partnerships with other agencies.

B. Environmental Stewardship Initiative

DENR's Environmental Stewardship Initiative promotes and encourages superior environmental performance by North Carolina's regulated community. This voluntary program stimulates the development and implementation of programs that use pollution prevention and innovative approaches to meet and exceed regulatory requirements. There are three levels of participation. "Environmental Partners" is for organizations interested in developing a systematic approach to improving their environmental performance. The "Rising Steward" level was added this year and is designed for those organizations that have a mature environmental management program. The "Environmental Steward" level

¹ Conditionally Exempt Small Quantity Generators are defined as facilities that generate no more than 100 kg (220 lbs.) or more of hazardous waste per month.

is for organizations that already display a commitment to exemplary environmental performance beyond what is required by law. All participants must set environmental performance goals that include pollution prevention and are required to report annually on progress towards these goals and net pollution reductions.

This important program not only recognizes outstanding environmental performance at the "Steward" level, but provides encouragement and assistance to foster improved environmental performance by North Carolina organizations. Coaches (technical staff) are assigned to each participant to provide technical assistance on pollution prevention and develop an environmental management system. Networking opportunities allow participants to learn from each other and share success stories. This program seeks to reduce the impact on the environment beyond measures required by any permit or rule, producing a better environment, conserving natural resources and resulting in long-term economic benefits.

For more information about the program, visit <http://www.p2pays.org/esi/>.

C. Mercury Switch Removal Program

The HWS implemented a program that encourages the removal and recycling of mercury-containing convenience light switches from scrap automobiles known as "end of life" vehicles. Initially enacted in 2005 and revised and updated in 2007 by the General Assembly, this program requires auto recyclers and scrap metal processors to remove the switches before the vehicles are crushed, shredded, and recycled into the manufacture of steel. The vehicle recyclers and scrap metal processors will receive \$5.00 for each switch that is removed, collected, and sent for recycling. Removal of the switches prior to recycling greatly reduces mercury emissions during the steel-making process. Since 2007 33,576 mercury switches have been removed and 74 pounds of mercury has been recovered.

5.0 OTHER ACTIVITIES

The HWS will continue to support safe hazardous waste management in North Carolina by:

- Supporting opportunities for waste minimization and recycling and supporting annual generator workshops that help educate the largest generators on hazardous waste regulations and the expectations of hazardous waste inspectors;
- Continuing to seek EPA authorization to maintain authority to implement newly promulgated regulations and standards;
- Improving the quality of hazardous waste data for hazardous waste trend analysis and sound decision-making;
- Participating in EPA rulemakings that affect regulatory status and management standards for recycling used industrial rags and wipes, spent materials that are reclaimed for reuse, and other regulatory proposals;
- Implementing the provisions of Session Law 2007-107 (House Bill 36) that created additional notification and regulatory requirements for commercial TSDFs; and
- Completing the study of hazardous waste transfer facilities and reporting to the General Assembly as to whether further regulation of these facilities is warranted.