

HAZARDOUS WASTE MANAGEMENT
2008 REPORT

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INTRODUCTION

The State of North Carolina requires that the Department of Environment and Natural Resources (DENR) develop a comprehensive hazardous waste management plan every two years. The first plan was completed in July 1, 1990; the latest plan was completed in 2008. Beginning October 1, 2003, the Department was also required to make an annual report on the hazardous waste management plan per GS 130A – 294(i). This report includes an evaluation of hazardous waste management in North Carolina and identifies DENR's activities and recommendations in the following areas: improving waste management; cleaning up of hazardous waste; reducing the amount of waste generated; minimizing the amount of hazardous waste which must be disposed of; and maximizing resource recovery, reuse and conservation.

This report includes North Carolina data from the Environmental Protection Agency's (EPA) 2005 "Biennial Report of Hazardous Waste Generation" (2005 BR). Large Quantity Generators (LQGs) and Treatment, Storage, and Disposal Facilities (TSDFs) are required to provide EPA with information on their waste management activities on a biennial basis. The 2005 BR was posted to the website in early 2006 and can be found at <http://www.epa.gov/epaoswer/hazwaste/data/br05/index.htm>. The 2007 BR has been reported to EPA but has not been posted to EPA's website.

NORTH CAROLINA HAZARDOUS WASTE SECTION

The Hazardous Waste Section was authorized by EPA in 1980 to implement the Resource Conservation and Recovery Act (RCRA) in North Carolina in lieu of the EPA. Continuing developments in the hazardous waste program nationwide have required the Section to continually apply for authorization in program areas, such as case development audits (criminal and administrative investigations), corrective action, and alternatives to permitting and emission monitoring. The Hazardous Waste Section (HWS) has a staff of 50 people working in three branches: Compliance Branch, Facility Management Branch and Programs Branch. Collectively, the duties include, but are not limited to, the following areas:

- Regulate the management of hazardous waste by generators, transporters, treatment, storage, disposal and recycling facilities;
- 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 the EPA, and most of the data is entered by authorized state programs. 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 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/>.

HAZARDOUS WASTE GENERATION, MANAGEMENT AND CLEANUP

For the calendar year 2007, 450 LQGs reported generating 131,516 tons of hazardous waste and the top10 North Carolina hazardous waste facilities reported generating 90,203 tons of hazardous waste.

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 1,899 small quantity generators and 4,562 conditionally exempt small quantity generators.¹ These facilities are not required to report the amount of hazardous waste they generate 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.

North Carolina has 28 facilities in the permitting workload universe and 62 facilities in the post-closure workload universe. Approximately 96 percent of these facilities are permitted, under an order or other approved control for management or remediation of their hazardous waste. There are 109 facilities that are subject to RCRA Corrective Action. Progress in the Corrective Action Program is tracked through environmental indicators of Human Exposure Controlled, Groundwater Contamination Controlled, Remedy Selected and Remedy Constructed. Currently, 100% of high priority corrective action sites have human exposures under control and 82 % of high priority corrective

¹ Small Quantity Generators are defined as facilities that generate between 100 kg and 1,000 kg (220 lbs. to 2,200 lbs.) per calendar month. Conditionally Exempt Small Quantity Generators generate less than 100 kg (220 lbs.) per calendar month.

action sites have groundwater migration under control. In addition 46% of the total corrective action universe has a remedy selected and 41% have a remedy constructed.

The Hazardous Waste Section's Compliance Branch implemented an "outcome measures" process to document the effects of hazardous waste compliance and enforcement remediation efforts in achieving the Department's mission to protect and improve public health and the environment. During 2007-2008, branch actions ensured the safe management of 31,000+ gallons and 667 tons of hazardous waste that otherwise may have been mismanaged. These outcome measures also ensured that more than 2719 individuals that could have been adversely impacted were protected against the effects of hazardous waste. More than 30 sites have been cleaned up with "no further action" achieved.

NORTH CAROLINA HAZARDOUS WASTE REDUCTION INITIATIVES

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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 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 is designed for those organizations that have a mature environmental management program. The "Environmental Steward" level 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

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 52,898 mercury switches have been removed and 116 pounds of mercury has been recovered.

D. North Carolina School Chemical Cleanout and Maintenance Project

On October 1, 2006 the HWS received a grant from EPA for a pilot program to remove chemicals from public schools throughout North Carolina and to provide technical assistance, training and educational guidance on proper chemical management. Training materials have been developed for school personnel in the areas of progressive laboratory and maintenance chemical management, GreenChemistry, MicroChemistry and other preventative approaches for future chemical management. A total of three workshops were provided at the following locations: the NC Department of Public Instruction Summer Leadership Conference in New Bern, the North Carolina State University's Science House, and at Appalachian State University's Science & Math Education Center. The HWS also, provided two informational sessions for community colleges that included discussions on chemical inventory, on storage and management of chemicals.

Workshops will be provided in strategic locations in the state to allow for the best attendance.

E. 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;
- Seeking to establish a hazardous waste generator security deposit to fund the cleanup of abandoned generator sites that do not meet acceptable environmental standards;
- Continuing to seek EPA authorization to maintain HWS's 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's rulemaking projects such as those involving standards for the recycling of used industrial rags and wipes, tailored waste management requirements for academic laboratories, revisions to the regulatory standards for materials that are recycled, and other regulatory proposals;
- Implementation of 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. Two of four planned stakeholder meetings have been held with hazardous waste transporter and transfer facilities.