

# ASSURING FEDERAL COMPLIANCE WITH THE RESOURCE CONSERVATION AND RECOVERY ACT

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## ABSTRACT

The South Carolina Department of Health and Environmental Control (DHEC) is charged under state statute with the responsibility to administer the requirements mandated by RCRA within the State of South Carolina, which includes the Department of Energy's Savannah River Plant (SRP) defense operations. A formal program is established within DHEC's Environmental Quality Control (EQC) to implement the authority delegated to the state by the Environmental Protection Agency for RCRA compliance. Mixed waste is also an important element of this program as it applies to federal installations. This paper will present the framework under which this Agency assures compliance with all federal and state laws through its permitting, compliance inspection, and enforcement activities specific to the Savannah River Plant Operations, and its waste management and environmental protection programs. Due to mixed waste generation and storage at SRP, radiological hazards are a major consideration recognized by the Agency. Therefore, reliance upon technical evaluations performed by EQC's Bureau of Radiological Health plays an important role in the overall RCRA compliance program.

## INTRODUCTION

The Savannah River Plant (SRP) is a nuclear materials production facility located in western South Carolina. SRP was constructed in the early 1950's to produce the basic materials used in the fabrication of nuclear weapons primarily plutonium-239 and tritium. The plant consists of 5 reactors (K,L,P, C and R), none of which are operational at this date. R reactor was shut down in 1964; C is in cold standby; and K,L, and P are undergoing evaluations for restart. Other operations at SRP include two separations areas (F and H) for the processing of irradiated materials, a closed down heavy water extraction and recovery plant (D); a fuel and target fabrication facility (M); the SRP laboratory; administrative facilities (A); and the many support facilities necessary for these operations. This facility, which covers approximately 300 square miles, is owned and operated by the U.S Department of Energy (DOE). The operating contact at SRP is held by E.I. DuPont de Nemours and Company. Effective April of 1989, the contract will be turned over to Westinghouse Nuclear Corporation. (1)

Operations at SRP involve the use, production, treatment, disposal, and storage of solid, hazardous, radioactive and mixed wastes. Section 6001 of the Resource Conservation and Recovery Act (RCRA) states:

that federal facilities and activities shall be subject to and must comply with all Federal, State, interstate, and local requirements, both substantive and procedural (including any requirement for permits or reporting or any provisions for injunctive relief and such sanctions as may be imposed by a court to enforce such relief), respecting control and abatement of solid waste or hazardous waste disposal..." (2)

South Carolina has adopted RCRA in the South Carolina Hazardous Waste Management Regulations R.61-79. These Regulations parallel RCRA and are more stringent in areas concerning waste oils, small quantity generators, hazardous waste transporters, and the authorization to ship hazardous waste request forms. (3)

## REGULATORY FRAMEWORK

The South Carolina Department of Health and Environmental Control (DHEC) is the state agency delegated

the authority to enforce RCRA at SRP. Several program areas within DHEC work jointly to ensure compliance. DHEC is governed by a board, whose members are appointed by the governor and approved by the state senate. Under the board falls the Commissioner of DHEC, the Deputy Commissioner for Environmental Quality Control, (EQC) and each of the Bureaus within EQC.

### Bureau of Solid and Hazardous Waste

The lead Bureau which administers the RCRA program for the State of South Carolina is the Bureau of Solid and Hazardous Waste. They are responsible for the permitting and enforcement at all RCRA sites. Currently there are only 5 permitted facilities under RCRA. These include 4 storage buildings for hazardous waste only, and the M area hazardous waste management facility. There are also several areas under interim status, which include: Transuranic Waste Pads 1-13, M area process interim waste storage facility, F area seepage basin, and H area seepage basin. (4)

The BSHW is also responsible for enforcement actions at SRP, which are handled jointly with the DHEC legal counsel. Enforcement actions in the past have consisted of (1) failure to meet permitting deadlines, (2) inadequately addressing deficiency items, (3) the reporting and occurrence of spills, (4) inadequate groundwater sampling programs, (5) and improper storage and labeling of hazardous waste. Since 1977, SRP has been fined approximately \$200,000 of which they have agreed to pay \$20,000. Currently there is a case in the Federal District Court to determine if the state has the authority to fine a federal facility. (5)

### Bureau of District Services

The Upper Savannah district office of DHEC also plays an important role. The District has a full time hazardous waste consultant on staff. They perform a comprehensive inspection each year with EPA and other representatives from EQC, in addition to several informal inspections and incident investigations. The district staff was onsite approximately 150 days during 1988. Emergency response is a large part of the District's duty. In conjunction with BSHW emergency response team, they respond to all unusual events and hazardous substance spills. Recently SRP formed a spill response team to provide prompt

containment of spills and clean up assistance. The District is also responsible for collecting environmental samples from SRP. These samples then in turn are analyzed by the Bureau of Radiological Health Lab and the Analytical and Biological Services Laboratory. (6)

#### **Bureau of Laboratories**

Laboratory facilities for both analytical and biological services and radiological analysis are established within DHEC. Although samples are not normally collected for RCRA compliance purposes, other samples are collected at SRP for compliance with groundwater standards and stream monitoring from major outfalls permitted at SRP. Samples which may contain radiological constituents are submitted to the radiological laboratory for screening prior to their analysis in other analytical labs.

#### **Bureau of Air Quality**

Emissions from RCRA activities are permitted by the Bureau of Air Quality Control, under South Carolina Waste Combustion and Reduction Regulations. Areas permitted by Air Quality include the waste oil burner in D area, the waste incinerator in H-area, and the air stripper in M-area. (7)

#### **Drinking Water Protection**

Due to an extensive need, a division of EOC's Bureau of Drinking Water Protection was recently transferred under the BSHW to perform hydrogeological evaluations for RCRA.

#### **Bureau of Radiological Health**

The Bureau of Radiological Health (BRH) is located in the Agency responsible for all environmental regulatory programs for the state to include RCRA. Although BRH's Agreement State status does not grant regulatory authorization over federal facilities, BRH does interface with other DHEC program areas which have regulatory oversight at SRP. BRH performs technical evaluations of radiological concerns during RCRA permit reviews and other permitting activities at SRP.

This radiological expertise has proven to be beneficial to the state and SRP as well since South Carolina has received mixed waste authorization as it applies to both commercial and federal facilities. BRH has been instrumental in providing technical reviews of mixed waste storage, low level radioactive waste, disposal facilities and mixed waste processing facilities such as the Saltstone facility. BRH's reviews are limited to the radiological consequences that need to be considered for health and safety of workers, and environmental protection. Although high level waste stored at SRP has yet to be determined subject to RCRA, BRH provides technical consideration to other DHEC

program areas concerning these waste and the regulatory oversight.

### **INTERAGENCY COORDINATION**

DHEC, in conjunction with EPA, has developed several methods instrumental in assuring compliance with RCRA at SRP.

#### **Memorandum of Agreement**

In April 1985, a memorandum of agreement was signed between DHEC and the DOE's manager of SRP operations. This was a voluntary agreement between the two parties in a spirit of mutual cooperation hopefully to ensure environmental quality of SRP. It was the philosophy of DHEC that SRP would be regulated as any other industry in South Carolina. Therefore, in effect, SRP agreed to comply with all applicable South Carolina Statutes and regulations to the extent it could unless exempted by an Act of Congress.

The agreement also established a protocol for dealing with environmental issues and regulatory compliance at SRP, and recognized DHEC's obligation to enforce state environmental laws and Federally delegated laws and responsibilities. The agreement however did not restrict DHEC from seeking enforcement or SRP from challenging any enforcement actions. Since initiation of this Agreement, federal compliance with RCRA has been less cumbersome for both parties. (8)

#### **SRP Coordinating Committee**

Another important element in assuring federal compliance with RCRA was the establishment of a coordinating committee.

This committee is composed of the technical staff and program managers within DHEC, SRP and its contractor, and the EPA. Quarterly meetings are held to discuss the status of waste management activities, application reviews by DHEC and EPA, regulatory compliance, enforcement actions, and generally to share information. This forum has proven to be extremely effective in understanding the complexities of the regulatory program and the problems of each agency. Although all issues are not settled during these committee meetings, at least they are discussed and some form of problem solving is initiated. DHEC

#### **DHEC Internal SRP Management Committee**

An internal committee has been established within DHEC under the direct supervision of the Deputy Commissioner for Environmental Quality Control for the purpose of coordinating the Agency's regulatory responsibilities at SRP.

This committee is composed of the Division Director for each program area and a representative of the Office of Legal Counsel.

Meetings are held at least monthly and more frequently as necessary to discuss regulatory strategies and to receive updates on any outstanding issues. Status of permit reviews and enforcement actions are discussed to ensure staff resources are directed to these activities. This occasion is

also used to brief each program area and coordinate their collective efforts.

#### **Radiological Environmental Surveillance and Emergency Response**

Even though radiological surveillance and emergency planning and response are not elements of RCRA compliance, DHEC's Bureau of Radiological Health has established a formal program for collection and analysis of environmental samples around SRP. This program includes all sample media (surface water, groundwater, soil, crops, vegetation, milk, etc.). An air sampling network is established and samples are collected bi-weekly. Environmental data are shared with SRP and comparisons made with their results. Frequent meetings are held with officials of South Carolina, Georgia, and SRP to discuss the environmental programs and sampling results.

As other fixed nuclear facilities in South Carolina, SRP is covered under the State's Peacetime Radiological Emergency Plan. A formal emergency plan has been established with the facility. SRP notifies this Agency of incidences occurring at the facility. These notifications are coordinated with other state emergency agencies, and the Governor's office. Periodically, exercises are held with SRP to test the emergency plan. DHEC responds to all radiological emergencies at the facility and performs evaluations regarding public health and safety.

#### **CONCLUSION**

The S.C. Department of Health and Environmental Control is a multifaceted Agency responsible for public health and environmental protection. Its formal environmental programs and regulatory oversight at SRP gives public assurance for compliance with RCRA and other

environmental laws. This is accomplished through various program areas and coordinated with the facility and the EPA. DHEC has established a formal agreement and enforcement policies with SRP. Although DHEC's Bureau of Radiological Health does not have regulatory authority over federal facilities, it plays a key role in this regulatory regime by providing necessary technical evaluations and reviews of the overall waste management programs at SRP.

#### **REFERENCES**

1. Department of Energy, "Radioactive Waste Management at the Savannah River Plant," DOE-SR-0001.
2. The State of South Carolina Before the Department of Health and Environmental Control, Settlement Agreement 87-27-SW.
3. Interview with David E. Wilson, Jr., Environmental Engineer, South Carolina Department of Health and Environmental Control Bureau of Solid and Hazardous Waste.
4. Interview with R. Alan Coffey, Environmental Engineer, South Carolina Department of Health and Environmental Control Bureau of Solid and Hazardous Waste.
5. Interview with Kim Cauthen, Director, South Carolina Department of Health and Environmental Control Lower Savannah District.
6. Ibid.
7. Interview with Boyd Bedenbaugh, Environmental Engineer, South Carolina Department of Health and Environmental Control Bureau of Air Quality.
8. Memorandum of Agreement between the Manager of Savannah River Operations Office of the Department of Energy and the Commissioner, South Carolina Department of Health and Environmental Control.