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STATE OF GEORGIA'S ENVIRONMENTAL
AND EMERGENCY PREPAREDNESS
ACTIVITIES FOR THE SAVANNAH RIVER SITE

Quarterly Progress Report

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DOE/SR/18289-2

Emergency Preparedness and Response

EPD will assist GEMA annually in reviewing and updating Annex C (Savannah River Site) to the Georgia Radiological Emergency Plan (REP).

Accomplished. This is a continuing task.

EPD will assist GEMA in conducting training for state and local emergency response personnel whose services may be required in the event of a radiological incident at the Savannah River Site.

Accomplished through three (3) training exercises; one (1) relative to SRS, and two (2) relative to Plant Vogtle.

EPD will maintain a capability to respond to non-radiological hazardous materials incidents at the Savannah River Site which may impact on the State of Georgia.

Accomplished. This is a continuing task.

EPD will upgrade its capability to perform assessments of off-site radiation doses due to airborne or waterborne releases of radioactive materials from the Savannah River Site, and will, on a periodic basis, compare calculational results with DOE.

EPD procured three (3) laptop computers and software during 1993, onto which EPD installed the commercial MIDAS® dose projection system, the EPD ORDAS system (based on PUFF-PLUME algorithms) and the NRC RASCAL dose projection code. EPD associates used these codes during SRS exercises and actual incidents (³H releases, etc.)

EPD will upgrade its capability to perform field assessments of radioactive materials which may be released from the Savannah River Site, in particular tritium (³H).

GEMA is in the process of procuring tritium "sniffers" to be pre-located in Burke County. EPD installed an automatic liquid scintillation counter and a dual-detector gamma spectral analysis system aboard the Mobile Radiation Laboratory (MRL).

EPD will assist GEMA and the Burke County Emergency Management Agency in maintaining and operating a Forward Emergency Operations Center (FEOC). This FEOC will be used by State personnel in the event of a radiological incident at the Savannah River Site of sufficient severity to warrant the relocation of State personnel to the incident scene.

GEMA provided contract funds to the Burke County EMA for use in operating this EOC.

EPD will maintain and operate a Mobile Radiation Laboratory (MRL) capable of relocation and operation at the state FEOC in the event of a radiological release from the Savannah River Site. The MRL shall also be capable of self-sustained operations at any temporary location in the State, if dictated by monitoring requirements.

EPD completed procurement of the Mobile Radiation Laboratory (MRL) in October 1993, and is awaiting delivery of one (1) high-purity germanium detector.

EPD will participate in periodic radiological emergency response exercises at the Savannah River Site.

Accomplished. EPD participated to the extent desired by SRS in the August 18, 1993 radiological exercise.

EPD will participate in periodic meetings of the Radiation Working Group (RWG) to enhance coordination on emergency response issues. Savannah River Site staff are encouraged to participate fully in these meetings.

Accomplished. EPD has participated in every RWG meeting. Three (3) WSRC associates attended the last meeting, held in Atlanta on March 2, 1994.

EPD will assist GEMA in preparing periodic reports to DOE on emergency preparedness and response activities related to the Savannah River Site. This reporting requirement may be satisfied by posting such information on a computer bulletin board and providing DOE access to this system.

Environmental Monitoring

Monitoring of Surface Water and Related Media

Surface Water Discharges

EPD will augment its current monitoring program to include continuous sampling downstream of all site streams from which radioactive materials may enter the Savannah River, at U.S. Highway 301 and in Savannah, and upstream of SRS at Augusta. At a minimum, samples will be collected bi-weekly.

EPD has procured all necessary equipment and supplies to accomplish this task. EPD, however, has been unable to deploy this sampling equipment, as sample barges provided to EPD by WSRC proved to be

unsatisfactory. EPD has requested AIP funds to procure new sampling barges for use in this task.

EPD will continue to collect aquatic species (fish) samples at the mouths of SRS site streams, as well as upstream and downstream of the Savannah River Site. EPD will collect fish samples a minimum of twice annually.

EPD collected fish in September 1993, and again in March, 1994 during a joint collection mission with WSRC.

EPD, in cooperation with DOE, will continue its current monitoring activities related to aquatic vegetation and sediment from the Savannah River.

Accomplished.

EPD, in cooperation with DOE, will review the current monitoring system related to surface water and associated media and will recommend needed improvements. EPD will continue activities related to review of DOE-generated data.

Accomplished. EPD relayed comments to DOE regarding its monitoring program during a November 2, 1993 meeting in Atlanta of the Inter-agency Working Group, and again on December 9, 1993 in Aiken at the annual report meeting.

Public Drinking Water

Port Wentworth

EPD will, in cooperation with the City of Savannah, collect weekly composite water samples at Port Wentworth, and will, at a minimum, analyze such samples for ³H.

Scheduling for this task is being coordinated with the deployment of continuous water samplers, as outlined above.

EPD, in cooperation with DOE and the City of Savannah, will review the current monitoring of drinking water at Port Wentworth, and will recommend needed improvements. EPD will continue activities related to review of DOE-generated data.

Accomplished.

Other Users

EPD, in cooperation with DOE, will, on a periodic basis, determine if additional water users may be effected by discharges from the Savannah River Site, and will recommend modifications to the monitoring program to address these users.

To our knowledge, there has been not activity on this task.

Ground Water Monitoring

EPD and DOE will review the current EPD groundwater monitoring system and associated activities in the vicinity of the Savannah River Site and will determine if additional actions or improvements are needed. The review will include examination of the location, depth, sampling practice and quality of the wells used for monitoring. Upon agreement of both parties, the needed actions or improvements would be funded under this Agreement. EPD will continue its current activities related to review of DOE-generated groundwater monitoring data.

To our knowledge, there has been no activity on this task.

Air Monitoring

To supplement existing DOE monitoring, EPD will establish a minimum of three (3) new air/rain sampling stations in the immediate vicinity of the Savannah River Site, and one (1) air/rain sampling station in the Savannah area.

EPD has established three (3) new air/rain sampling stations in the vicinity of SRS: at the I-20 Welcome Center, at Burke County EMA Engine Company 11 (Ga. 23 and Hancock Landing Road) and on River Road south of the A&A Store.

At a minimum, EPD will collect air samples bi-weekly at all air sampling stations used to monitor the Savannah River Site.

Accomplished.

EPD will establish the capability to monitor for airborne tritium (^3H) at all air sampling stations used to monitor the Savannah River Site.

Work continues on this task. EPD has procured all necessary equipment and supplies, and laboratory development work is nearing completion. EPD plans to deploy a prototype sampler prior to the end of June, 1994. Full deployment should be complete during calendar year 1994.

EPD, in cooperation with DOE, will conduct a review of the current air monitoring system with regard to radioactive materials, and will recommend needed improvements. EPD will continue its current activities related to review of DOE-generated data.

Accomplished.

Crops and Milk

To supplement existing DOE monitoring, EPD, in cooperation with the Georgia Department of Agriculture, will establish a program to collect milk and crop samples from the 12-county area within the Savannah River Site 50-mile Ingestion Pathway Emergency Planning Zone (EPZ).

Development work is just beginning on this task.

EPD will establish a minimum of eight (8) new milk sampling locations and will collect a minimum of one (1) milk sample monthly from each of these stations.

Development work is just beginning on this task.

EPD will collect various crop samples at the time of harvest from Richmond, Burke and Chatham counties.

Development work is just beginning on this task.

Soil and Vegetation / Direct Radiation

EPD, in cooperation with DOE, will review the current environmental monitoring system around Savannah River Site, and will recommend needed improvements.

Development work is just beginning on this task.

To supplement existing DOE monitoring, EPD will establish a minimum of eight (8) new soil and vegetation monitoring stations within the 12-county area within the Savannah River Site 50-mile Ingestion Pathway Emergency Planning Zone (EPZ).

Development work is just beginning on this task.

EPD will monitor direct radiation at each of the newly established soil/vegetation stations using thermoluminescent dosimeters (TLDs).

Development work is just beginning on this task.

EPD will collect quarterly vegetation samples and annual soil samples at each of the new soil/vegetation monitoring locations.

Development work is just beginning on this task.

Environmental Monitoring Program and Report

EPD will provide to DOE details of the current environmental monitoring program in the vicinity of the Savannah River Site, and will provide DOE the opportunity to collect split samples.

EPD associates have met with WSRC and DOE associates on several occasions to discuss both WSRC and EPD environmental monitoring programs at SRS. EPD and WSRC have participated in joint monitoring activities, particularly fish and other aquatic pathways.

EPD will provide periodic reports to DOE of its monitoring and analysis activities and its findings of the quality and effectiveness of environmental monitoring, surveillance and control programs. Such reporting requirements may be satisfied by posting such data on a computer bulletin board and providing DOE access to this system.

EPD plans to produce environmental monitoring reports on an annual basis, beginning with calendar year 1994.

Monitoring activities and analyses shall be governed by applicable state and federal standards and practices.

Accomplished.

EPD will participate fully in the Inter-agency Data Exchange working group related to radiological monitoring in the Savannah River basin.

Accomplished.

EPD will prepare a plan for improvements to the environmental monitoring program in the vicinity of the Savannah River Site, including a review of the need for real-time radiological measurements; such plans shall be provided to DOE for review and consultation. EPD will provide DOE the opportunity to collect split samples.

EPD plans to undertake this planning effort after completion of the tasks initially outlined in the AIP.

**DATE
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6/16/94

END