



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

June 6, 1990

MEMORANDUM FOR: Robert Bernero, Director
Office of Nuclear Materials Safety and Safeguards

FROM: Stewart D. Ebnetter, Regional Administrator

SUBJECT: POTENTIALLY CONTAMINATED FACILITIES IN REGION II

During the last Senior Management Meeting, we discussed the need for sensitivity to low-level waste and decommissioning issues. Following the meeting, I directed the staff to identify and compile a listing of sites in Region II which may be contaminated with radioactive material and which may require decontamination at some future time. The staff has developed such a listing based on inspector historical knowledge and review of available Regional records. In addition, we contacted all Agreement State Radiation Control Program offices and solicited input from each of them. Provided as Enclosure 1 is the list of potentially contaminated facilities developed by the Regional staff. Enclosure 2 is a listing of potentially contaminated sites that was derived from information supplied to Region II by the Agreement State Radiation Control Program offices.

Please note that this listing was under development during the time frame that the recent SECY paper, SECY-90-121, concerning contaminated sites was submitted to the Commission. The listing developed by Region II includes only two of the facilities mentioned in the SECY paper, namely Nuclear Fuel Services (NFS), Inc., in Erwin, Tennessee and AMAX, Inc., in Parkersburg, West Virginia. The remaining facilities have only minor contamination problems in comparison and do not fall into the three categories or groups mentioned in SECY-90-121 as Level A, Level B, or Level C. Oversight of these remaining properties is being conducted by the applicable licensee, company, and/or regulatory agency (State Radiation Control Program office or the NRC).

As noted in Enclosure 1, we still plan additional followup activities at many of these facilities. Region II will work closely with the Division of Low-Level Waste Management and Decommissioning on this issue. The regional point of contact on this matter is W. E. Cline who may be contacted at FTS 841-0346.

Stewart D. Ebnetter
Stewart D. Ebnetter

Enclosures:

1. List of NRC-licensed Sites
2. Agreement State Sites

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ENCLOSURE 1

NRC-LICENSED SITES
REGION II

ALABAMA

1. Facility: Fort McClellan (Federal Facility) U.S. Army
Anniston, AL

Type of Facility: ABC Warfare Training Facility
Nature of Problem: Hot cell contaminated with Co-60 and Cs-137; 210 mCi
Current Status: Decontaminating, expect completion prior to 6/30/90.
Last Inspection: August 11, 1989, Region II monitors Army progress

2. Facility: TVA - Chemical Fertilizer Development
Muscle Shoals, AL

Type of Facility: Chemical Fertilizer Development
Nature of Problem: Phosphate slag (1.3×10^6 tons) containing 30pCi/g
of natural uranium stored on site.

Current Status: Material in storage. Non-licensed activity; facility
formulating monitoring plans in accord with EPA
controls on radon from phosphate sludge holdings.

Last Inspection: August 16, 1989

FLORIDA

1. Facility: Eglin AFB (Federal Facility)
Ft. Walton Beach, FL

Type of Facility: U.S. Air Force Training Facility
Nature of Problem: Buried DU (spent ammunition) at five sites on base
estimated to be slightly in excess of 9 lbs. 115 mCi
Zinc-65 buried March 1960 in trench 8' deep, 30' long.
Current activity of Zn-65 is 0.0038 pCi.

Current Status: Air Force is monitoring site. (Information obtained
from Brooks AFB RSC on 1/26/90.)

Last Inspection: Obtained information from a 1972 report. Region IV
monitors Air Force license.

FLORIDA (cont.)

2. Facility: St. Lucie (Generating Plant)
Ft. Pierce, FL
- Type of Facility: PWR
- Nature of Problem: Contaminated sewage disposed of by spreading on land offsite. Sewage removed, but low-level contamination remained in soil.
- Current Status: Sewage solids now disposed of as radwaste. Fort Pierce Sewage treatment Plant not surveyed, offsite a disposal area excavated (20'x 60' x 6-12"). On site contaminated dirt collected. Licensee plans to clean out onsite waste treatment system.
- Last Inspection: April 9-13, 1990
3. Facility: Turkey Point (Generating Plant)
Homestead, FL
- Type of Facility: PWR
- Nature of Problem: Several spent fuel pool leaks causing low level contamination of ground, pavement, storm drain.
- Current Status: 1987 levels: Co-58, 2.0 E-5 uCi/ml ;
Co-60, 5.4 E-6 uCi/ml
- Last Inspection: October 23-27, 1989

GEORGIA

1. Facility: Hatch (Generating Plant)
Appling County, GA
- Type of Facility: BWR
- Nature of Problem: Tritium contamination of groundwater from valve leak. (H-3, 8.46 E+5 pCi/l (highest, 1988). Low-level contamination of swampy area from spent fuel pool overflow (Cs-137, 10728 pCi/kg ; Cs-134, 3642 pCi/kg ; Co-60, 3628 pCi/kg).
- Current Status: Special groundwater sampling to monitor contamination of swampy area.
- Last Inspection: November 15-17, 1989

NORTH CAROLINA

1. Facility: General Electric (Nuclear Fuel Fabricator)
Wilmington, NC
- Type of Facility: Low-enriched uranium fuel fabrication
- Nature of Problem: Contaminated zirconium burial, contaminated holding ponds, and miscellaneous soil contamination due to liquid spills, levels not identified.
- Current Status: Zirconium burial surrounded by groundwater, monitoring wells. Contaminated holding ponds are still being used but action to recover bulk uranium is underway. Installing waste processing facility for nitrate and fluoride ponds.
- Last Inspection: January 16-19, 1990

PUERTO RICO

1. Facility: U. S. Air Force Reserve Base
- Type of Facility: Military Training Facility
- Nature of Problem: Several A-7 aircraft containing DU parts and Kr-85 gauges buried after terrorist attack on aircraft.
- Current Status: USAF RIC considering removal of aircraft.
- Last Inspection: Region IV follows activities of Air Force RIC

SOUTH CAROLINA

1. Facility: Westinghouse (Nuclear Fuel Fabricator)
Columbia, SC
- Type of Facility: Low-enriched uranium fuel fabrication
- Nature of Problem: Contaminated Holding Ponds (lined)
- Current Status: Ponds still in use, previously cleaned and material sent for burial. Effluent to ponds now less than 30pCi/gm total U and is sold in accordance with license condition.
- Last Inspection: May 30 - June 2, 1989

TENNESSEE

1. Facility: Nuclear Fuel Services, Inc.
Erwin, TN
- Type of Facility: Naval Nuclear Fuel Fabrication (former plutonium, low-enriched, and natural uranium and thorium processing).
- Nature of Problem: Burials pursuant to 10 CFR 20.304, contaminated holding ponds, contaminated soil, plutonium facility. Potentially, the following burials are not in accordance with 10 CFR 20.304: "fourth pond" or scrap burial near current ponds and two burial trenches on leased railroad property.
- Current Status: Burial grounds surrounded by groundwater monitoring wells. Pond and Pu facility decommissioning underway. CSX railroad has requested termination of NFS lease of property along the railroad tracks where NFS has two burial trenches. The contents of these burials, dating from 1969, are not well known, but NRC contractor studies show they contain U-238 and Th-232.
- Last Inspection: March 19-23, 1990

VIRGINIA

1. Facility: B&W - NNFD
- Type of Facility: Naval Fuel Fabrication
- Nature of Problem: Burials pursuant to 10 CFR 20.304, and contaminated holding ponds. (1989 analysis: alpha-156 pCi/gm; total U-6 microgram/gram).
- Current Status: Site still active and ponds being used. Records of contents of burial trenches have been lost by the licensee. Groundwater monitoring at burial trenches.
- Last Inspection: December 4-7, 1989

VIRGINIA (cont.)

2. Facility: B&W - NNFD RL
Lynchburg, VA

 Type of Facility: R&D
 Nature of Problem: Contaminated soil below plant along railroad track. Area is presently posted. Balance previously dug and stored in barrels; periodic shipments to Barnwell.
 Current Status: Site still active.
 Last Inspection: April 10-12, 1989

3. Facility: B&W CNFP

 Type of Facility: Low-enriched uranium fuel fabrication.
 Nature of Problem: Low-level of contamination in a drainage ditch and surrounding swampy area.
 Current Status: Site still active. NMSS is considering what action is appropriate during renewal of license.
 Last Inspection: August 29-30, 1989

4. Facility: Atlantic Research
Alexandria, VA

 Type of Facility: Manufacturing (in past)
 Nature of Problem: Soil around holding tank contaminated with Sr-90.
 Current Status: Most contaminated soil removed - pathway analysis done by Headquarters. No information available in Region II Office.
 Last Inspection: Retired records requested from Headquarters; last inspection not known.

VIRGINIA (cont.)

5. Facility: VPI
Blacksburg, VA
- Type of Facility: University
- Nature of Problem: Burial under 20.304; last burial 1977. As of 9/1/88, activity equalled 37.90 mCi of C-14 and 98.35 mCi of H-3.
- Current Status: Burial ground is inactive. No environmental monitoring is performed or required.
- Last Inspection: February 8, 1990

WEST VIRGINIA

1. Facility: AMAX, Inc.
Parkersburg, WV
- Nature of Problem: Formerly used for carbiding and chlorination of Nigerian Zircon sand. Thorium was a byproduct. Spills into soil as a result of deteriorated drums. Discovered 1977.
- Current Status: Site is now referred to as a stabilization site and is monitored by State representatives at six-month intervals.
- Last Inspection: April 1989

ENCLOSURE 2

AGREEMENT STATE SITES

The following sites are listed for each Region II Agreement State. The listing includes 20.303 disposals, sites authorized under previous 20.304 provisions, and other sites that have contamination. In each case, the State Radiation Control Program has responsibility for regulatory oversight.

ALABAMA

1. Facility: University of Alabama
Tuscaloosa, AL

Type of Facility: Broad License No. 164

Nature of Problem: Licensee established a burial ground under 10 CFR 20.304 in the early 1960s.

Current Status: Burial site is no longer used. The site is being monitored by the licensee and the State of Alabama. No migration has been identified.
2. Facility: Tuskegee Institute
Tuskegee, AL

Type of Facility: Broad License No. 226

Nature of Problem: Burial site established under 10 CFR 20.304 provisions.

Current Status: Site is active and being monitored by the licensee and the State. No migration has been identified.
3. Facility: Auburn University
Auburn, AL

Type of Facility: Broad License No. 248

Nature of problem: Burial site established under 10 CFR 20.304 provisions.

Current Status: Site is still in use and being monitored by the licensee and the State. No migration has been identified.

FLORIDA

1. Facility: Florida State University
Tallahassee, FL

Type of Facility: Broad License No. 32-10
Nature of Problem: Two burial sites were established under
10 CFR 20.304.
Current Status: Both sites have been closed and are being
monitored by the licensee. No migration has been
identified.
2. Facility: University of Florida
Gainesville, FL

Type of Facility: Broad License No. 356-1
Nature of Problem: Burial site was established under 10 CFR 20.304
provisions
Current Status: Site has been closed and is being monitored by
the licensee. No migration has been identified.
3. Facility: University of Miami
Miami, FL

Type of Facility: Broad License No. 76-13
Nature of Problem: Burial site was established under 10 CFR 20.304
at the Metro Zoo (Federal Property).
Current Status: Site was closed in 1970. No longer under the
control of U. of Miami. This property is now
under GSA control and NRC surveyed the site in
1984.
4. Facility: Sanford Airport Authority
Sanford, FL

Type of Facility: Building contaminated with carbon-14 under
License No. 1670-01
Nature of Problem: Wooden structure is contaminated with carbon-14
and also contains one 55-gallon drum of mixed
waste. Awaiting disposition of mixed waste by
EPA.
Current Status: Licensee has proposed onsite burial of the C-14
contaminated structure. The State has conducted
extensive surveys at the facility. Final dispo-
sition of building and mixed waste is ongoing.

FLORIDA (cont.)

5. Facility: IMC Fertilizer Co.
Mulberry, FL
- Type of Facility: Secondary Uranium Recovery Operation under License No. 1336-4
- Nature of Problem: Contamination resulting from mining of phosphate ore and the recovery of uranium
- Current Status: This is an active operation that is being monitored by the State. Some NARM-contaminated materials have been buried onsite.
6. Facility: UNC Recovery Corporation
Mulberry, FL
- Type of Facility: Secondary Uranium Recovery Operation Under License No. 1059-1
- Nature of Problem: Contamination resulting from mining of phosphate ores and the uranium recovery operation.
- Current Status: Recovery operation is inactive, and the facility is being decontaminated and converted to other uses. The State is monitoring around the site.
7. Facility: Gardiner Big Ben, Inc.
Tampa, FL
- Type of Facility: Secondary Uranium Recovery Operation under License No. 396-3 has been shut down.
- Nature of Problem: Contamination resulting from mining of phosphate ore and uranium recovery.
- Current Status: A decommissioning plan is being prepared by the licensee, and the State conducts an environmental monitoring program around the site.

GEORGIA

1. Facility: University of Georgia
Athens, GA
- Type of Facility: Broad License No. 103-1
- Nature of Problem: Burial site established under 10 CFR 20.304. Small quantities of hydrogen-3 are migrating below surface, onsite.

GEORGIA (cont).

- Current Status: Site is still active for burial of large animals from School of Veterinary Medicine. Site is monitored by the licensee and State of GA.
2. Facility: Emory University
Atlanta, GA
- Type of Facility: Broad License No. 153-1
- Nature of Problem: Burial site established under 10 CFR 20.304
- Current Status: Burial site inactive and being monitored by licensee. No migration has been detected.
3. Facility: Medical College of Georgia
Augusta, GA
- Type of Facility: Broad License No. 7-1
- Nature of Problem: Burial site established under 10 CFR 20.304
- Current Status: Inactive. Site being controlled by licensee and monitored by licensee and State Department of Natural Resources (DNR).
4. Facility: Dawson Forest Wildlife Management Area (Old Lockheed Aircraft Facility)
Dawsonville, GA
- Type of Facility: Decommissioned Aircraft Facility
- Nature of Problem: Facility was decommissioned by NRC prior to release to the State of GA. Small quantities of materials (Co-57 and Co-60) present in soil. Detailed surveys by NRC and the State were conducted.
- Current Status: State maintains control over site, and DNR conducts a monitoring program. No migration of materials has been detected.
5. Facility: Interstate Nuclear Services, Inc.
Macon, GA
- Type of Facility: Nuclear Laundry, License No. 894-1
- Nature of Problem: Potential for onsite contamination with releases to environment, sewer system, etc.
- Current Status: Active license, being monitored by licensee and the State

MISSISSIPPI

1. Facility: Grand Gulf Nuclear Station
Port Gibson, MS

 Type of Facility: Sanitary Waste Treatment System at a BWR
 Nature of Problem: Request for a 10 CFR 20.203 release of sludge
 into a publicly-owned treatment works.
 Current Status: Approval was granted by the State Division of
 Radiological Health on August 5, 1988.
2. Facility: Interstate Nuclear Services, Inc.
Vicksburg, MS

 Type of Facility: Nuclear Laundry, License No. 495-01
 Nature of Problem: Potential for off-site environmental release
 (sanitary sewer, etc.).
 Current Status: Active license, monitoring programs conducted by
 licensee and the State RCP. No contamination has
 been detected off-site.

NORTH CAROLINA

1. Facility: McGuire Nuclear Plant
Huntersville, NC

 Type of Facility: PWR
 Nature of Problem: Sludge for sanitary system deposited onsite
 (surface) under 10 CFR 20.203 provisions.
 Current Status: Disposal accomplished 6-30-86
2. Facility: Duke Medical Center
Durham, NC

 Type of Facility: Broad License No. 032-085-3
 Nature of Problem: Contaminated biological waste burial site (C-14
 and H-3) under 10 CFR 20.304, provisions.
 Current Status: Inactive site that is being monitored by the
 State RCP. The State monitoring program shows
 some migration of chemicals and radionuclides.
 Decommissioning has not begun.

NORTH CAROLINA (cont.)

3. Facility: North Carolina Baptist Hospital and
Bowman Gray School of Medicine
Durham, NC

Type of Facility: Specific License No. 034-0158-1

Nature of Problem: Biological waste contaminated with C-14 and H-3 was buried under 10 CFR 20.304 provisions.

Current Status: Inactive site that is being monitored by the licensee and the State. Some migration of chemicals has been detected.
4. Facility: North Carolina State University
Raleigh, NC

Type of Facility: Broad License No. 092-090-3

Nature of Problem: Biological waste contaminated with C-14 and H-3 was buried under 10 CFR 20.304. Waste was also contaminated with other hazardous chemicals.

Current Status: This site is on the EPA Super Fund listing. There is an off-site well monitoring system but no indication of migration at this time.
5. Facility: University of North Carolina
Chapel Hill, NC

Type of Facility: Broad License No. 068-214-1

Nature of Problem: Two burial sites established under 10 CFR 20.304 provisions.

Current Status: Both sites are being monitored by the licensee and the State. The licensee plans on removing the material from the sites. Some migration of chemicals and isotopes has been detected.
6. Facility: E. I. DuPont
Kingston, NC

Type of Facility: Research License No. 054-0109-2

Nature of Problem: Materials contaminated with C-14 and H-3 were buried under 10 CFR 20.304 provisions.

Current Status: Chem Nuclear removed the materials from the site; however, a clause was placed in the property deed.

NORTH CAROLINA (cont).

7. Facility: Watts Farm
Wilkes County, NC
- Type of Facility: Terminated License
- Nature of Problem: Materials contaminated with toluene, C-14, and H-3 were buried under 10 CFR 20.304 provisions during the 1970s.
- Current Status: Site is currently being monitored by the State on a quarterly basis. Some migration of chemicals and isotopes has been detected.

SOUTH CAROLINA

1. Facility: Catawba Nuclear Plant
York, SC
- Type of Facility: PWR
- Nature of Problem: Sludge from sanitary sewer system was deposited onsite under 10 CFR 20.303 provisions.
- Current Status: Disposal took place in 1988.
2. Facility: Robinson Nuclear Plant
Hartsville, SC
- Type of Facility: PWR
- Nature of Problem: Secondary sludge was deposited in onsite lagoon under 10 CFR 20.203 provisions.
- Current Status: Disposal took place in 1987.
3. Facility: Summer Nuclear Plant
Jenkinsville, SC
- Type of Facility: PWR
- Nature of Problem: Sludge from sanitary sewer system was deposited on surface, onsite under 10 CFR 20.303 provisions.
- Current Status: Disposals were made on January 1989.

SOUTH CAROLINA (cont)

4. Facility: Interstate Nuclear Services, Inc.
Columbia, SC
- Type of Facility: Nuclear Laundry, License No. 135
- Nature of Problem: Potential for onsite and off-site contamination.
- Current Status: Active license is being monitored by State RCP.
5. Facility: Interstate Nuclear Services, Inc.
Charleston, SC
- Type of Facility: Mobile Nuclear Laundry, License No. 21
- Nature of Problem: Potential for onsite and off-site contamination.
- Current Status: Active license being monitored by the State RCP.
6. Facility: Oconee
Seneca, SC
- Type of Facility: PWR
- Nature of Problem: Low-level contaminated sand and heat exchangers were buried onsite under 10 CFR 20.303 provisions. Low-level contaminated oil burned in boiler onsite. Onsite settling ponds contain low-level contamination.
- Current Status: Being monitored periodically by the licensee.

TENNESSEE

1. Facility: American Nuclear Corporation
Oak Ridge, TN
- Type of Facility: Hot Cell with Underground Tank
- Nature of Problem: Co-60 and Cs-137 contaminated soil on surface and subsurface.
- Current Status: Site contamination was stabilized and the site is now owned by the State and a State monitoring program is in place.

TENNESSEE (cont.)

2. Facility: Tennessee Eastman Co.
Kingsport, TN
 Type of Facility: Specific License No. R-820-07
 Nature of Problem: Materials contaminated with C-14 and H-3 were buried under 10 CFR 20.304 provisions.
 Current Status: Active license, the licensee has plans for site clean-up.
3. Facility: Aerojet Ordnance, Co.
Jonesboro, TN
 Type of Facility: Depleted Uranium processor under License No. S-90009-E90
 Nature of Problem: Surface contamination and contaminated sludge in settling ponds.
 Current Status: Contaminated areas from previous organization (TNS) have been cleaned up and the ponds have been filled with clean soil.
4. Facility: W. R. Grace, Davidson Chemical Division
Chattanooga, TN
 Type of Facility: Rare earth extraction under License No. S-32006-E90.
 Nature of Problem: Materials contaminated with Th and U daughters were buried under 10 CFR 20.304 provisions.
 Current Status: Licensee is operating under a cleanup plan being monitored by the State.
5. Facility: Vanderbilt University
Nashville, TN
 Type of Facility: Broad License No. R-19021-G89
 Nature of Problem: Contaminated incinerator waste was buried under 10 CFR 20.304 provisions.
 Current Status: Licensee has contracted Chem Nuclear Systems to clean up site.

TENNESSEE (cont.)

6. Facility: Quadrex, Inc.
Oak Ridge, TN
- Type of Facility: Decontamination services under License No. R-01037-K87.
- Nature of Problem: Potential for onsite and off-site contamination.
- Current Status: Facility has experienced contamination of sanitary sewer system. Facility is being monitored by the State.
7. Facility: David Witherspoon, Inc.
Knoxville, TN
- Type of Facility: Junk yard operator has specific license for possession of Mat. U or Th scrap metals and SNM contaminated scrap.
- Nature of Problem: Contaminated metals, soil, and stored drums of soil.
- Current Status: Licensee under a court order to dispose of licensed materials. DOE also involved in the site clean-up.
8. Facility: Dupont Smith, Inc.
Oak Ridge, TN
- Type of Facility: Junk yard that has a specific license (No. S-0117-L3) for metals contaminated with source material.
- Nature of Problem: Surface contamination of ferrous and nonferrous metals. Uranium and thorium as well as other hazardous substances, present.
- Current Status: Compliance actions all pending. Licensee has requested that site be placed on Super Fund List.

TENNESSEE (Cont.)9. Facility:

E. I. DuPont
New Johnsonville, TN

Type of Facility:

Titanium ore processor under License
No. S-5953-C5.

Nature of Problem:

Soils, settling ponds, drainage ditches, and
landfills contaminated with source material and
NARM.

Current Status:

Being monitored by the State RCP. No plans for
clean-up at this time.

POTENTIALLY CONTAMINATED FACILITIES
REGION II
AGREEMENT STATE SITES

FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
University of Alabama Broad License No. 164 Tuscaloosa, AL	Licensee established a burial ground under 10 CFR 20.304 in early 1960s.	Burial site no longer used. Site being monitored by licensee and State of Alabama. No migration has been identified.	
Tuskegee Institute Broad License No. 226 Tuskegee, AL	Burial site established under 10 CFR 20.304 provisions.	Site active and being monitored by licensee and State. No migration has been identified.	
Auburn University Broad License No. 248 Auburn, AL	Burial site established under 10 CFR 20.304 provisions.	Site active and being monitored by licensee and State. No migration identified.	
Florida State University Broad License No. 32-10 Tallahassee, FL	Two burial sites established under 10 CFR 20.304.	Both sites closed and being monitored by licensee. No migration identified.	
University of Florida Broad License No. 356-1 Gainesville, FL	Burial site established under 10 CFR 20.304 provisions.	Site closed and being monitored by licensee. No migration identified.	

POTENTIALLY CONTAMINATED FACILITIES
REGION II
AGREEMENT STATE SITES

FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
University of Miami Broad License No. 76-13 Miami, FL	Burial site established under 10 CFR 20.304 at Metro Zoo (Federal property).	Site closed in 1970. No longer under control of U. of Miami. Property under control of GSA.	1984 by NRC
Sanford Airport Authority License No. 1670-01 Sanford, FL	Wooden structure contaminated with C-14 and also contains one 55-gallon drum of mixed waste. Awaiting disposition of mixed waste by EPA.	Licensee proposed on site burial of C-14 contaminated structure. State has conducted extensive surveys at facility. Final disposition of building and mixed waste is ongoing.	
IMC Fertilizer Co. Secondary Uranium Recovery Operation under License No. 1336-4 Mulberry, FL	Contamination resulting from mining of phosphate ore and recovery of uranium.	This is an active operation being monitored by State. Some NARM-contaminated materials buried on site.	
UNC Recovery Corporation Secondary Uranium Recovery Operation Under License No. 1059-1 Mulberry, FL	Contamination resulting from mining of phosphate ores and the uranium recovery operation.	Recovery operation is inactive and facility is being decontaminated and converted to other uses. State is monitoring around site.	

POTENTIALLY CONTAMINATED FACILITIES
REGION II
AGREEMENT STATE SITES

FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
Gardiner Big Ben, Inc. Secondary Uranium Recovery Operation under License No. 396-3 Tampa, FL	Contamination resulting from mining of phosphate ore and uranium recovery.	Facility shut down. Decommissioning plan being prepared by licensee and State conducts environmental monitoring program around site.	
University of Georgia Broad License NO. 103-1 Athens, GA	Burial site established under 10 CFR 20.304. Small quantities of H-3 are migrating below surface on site.	Site is still active for burial of large animals from School of Veterinary Medicine. Site is monitored by licensee and State.	
Emory University Broad License No. 153-1 Atlanta, GA	Burial site established under 10 CFR 20.304.	Burial site is active and being monitored by licensee. No migration has been detected.	
Medical College of Georgia Broad License No. 7-1 Augusta, GA	Burial site established under 10 CFR 20.304.	Inactive. Site being controlled by licensee and monitored by licensee and State Department of Natural Resources.	
Dawson Forest Wildlife Management Area Former Lockheed Aircraft Facility Dawsonville, GA	Facility decommissioned by NRC prior to release to State. Small quantities of materials (Co-57 and Co-60) present in soil. Detailed surveys by NRC and State were conducted.	State maintains control over site and Department of Natural Resources conducts monitoring program. No migration of materials has been detected.	

POTENTIALLY CONTAMINATED FACILITIES
REGION II
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FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
Interstate Nuclear Services, Inc. Nuclear Laundry, License No. 894-1 Macon, GA	Potential for on site contamination with releases to environment, sewer system, etc.	Active license. Monitored by licensee and State.	
University of Kentucky Broad License No. 202-021-72 Lexington, KY	Burial site established under 10 CFR 20.304.	Inactive site. Being monitored by licensee. No migration of isotopes detected.	
University of Louisville Broad License No. 203-034-71 Louisville, KY	Burial site established under 10 CFR 20.304.	Inactive site. Monitored by licensee. No migration of isotopes detected.	
Centre College Specific License No. 203-033-83 Danville, KY	Contaminated biological waste burial per 10 CFR 20.304 provisions.	Inactive site. Monitored by licensee.	
Kentucky Department of Natural Resources Division of Waste Management Maxey Flats Facility LLW Burial Site (LN. 206-002-03)	Horizontal and vertical fractures in rock with migration of H-3 and subsidence from surface.	Closed site being stabilized under EPA funding. KY RCP provides oversight and monitoring program.	

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REGION II
AGREEMENT STATE SITES

FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
Grand Gulf Nuclear Station Sanitary Waste Treatment Facility at BWR Port Gibson, MS	Request for 10 CFR 20.203 release of sludge into a publicly owned treatment works.	Approval granted by State Division of Radiological Health on 8/5/88.	
Interstate Nuclear Services, Inc. Nuclear Laundry License No. 495-01	Potential for off-site environmental release (sanitary sewer, etc.).	Active license. Monitoring programs conducted by licensee and State RCP. No contamination detected offsite.	
McGuire Nuclear Plant PWR Huntersville, NC	Sludge from sanitary system deposited on site (surface) under 10 CFR 20.203 provisions.	Disposal accomplished 6/30/86	
Duke Medical Center Broad License No. 032-085-3 Durham, NC	Contaminated biological waste burial site (C-14 and H-3) under 10 CFR 20.304 provisions.	Inactive site. Monitored by State RCP. State monitoring program shows some migration of chemicals and radionuclides. Decommissioning begun.	
North Carolina Baptist Hospital and Bowman Gray School of Medicine Specific License No. 034-0158-1 Durham, NC	Biological waste contaminated with C-14 and H-3 buried under 10 CFR 20.304 provisions.	Inactive site. Monitored by licensee and State. Some migration of chemicals detected.	

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FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
North Carolina State University Broad License No. 092-090-3 Raleigh, NC	Biological waste contaminated with C-14 and H-3 buried under 10 CFR 20.304. Waste also contaminated with other hazardous chemicals.	Site is on EPA Super Fund list. There is an off-site well monitoring system but no indication of migration at this time.	
University of North Carolina Broad License No. 068-214-1 Chapel Hill, NC	Two burial sites established under 10 CFR 20.304 provisions.	Both sites being monitored by licensee and State. Licensee plans on removing material from sites. Some migration of chemicals and isotopes detected.	
E. I. Dupont Research License No. 054-0109-2 Kingston, NC	Materials contaminated with C-14 and H-3 buried under 10 CFR 20.304 provisions.	Chem-Nuclear removed materials from site. Clause placed in property deed.	
Watts Farm Terminated License Wilkes County, NC	Materials contaminated with toluene, C-14 and H-3 buried under 10 CFR 20.304 provisions during 1970s.	Site currently monitored by State on a quarterly basis. Some migration of chemicals and isotopes detected.	
Catawba Nuclear Plant PWR York, SC	Sludge from sanitary sewer system deposited on site under 10 CFR 20.203 provisions.	Disposal took place in 1988.	

POTENTIALLY CONTAMINATED FACILITIES
REGION II
AGREEMENT STATE SITES

FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
Robinson Nuclear Plant PWR Hartsville, SC	Secondary sludge deposited in site lagoon under 10 CFR 20.203 provisions.	Disposal took place in 1987.	
Summer Nuclear Plant PWR Jenkinsville, SC	Sludge from sanitary sewer system deposited on surface, on site under 10 CFR 20.303 provisions.	Disposals made on 1/89.	
Interstate Nuclear Services, Inc. Nuclear Laundry License No. 135 Columbia, SC	Potential for on site and off-site contamination.	Active license monitored by State RCP.	
Interstate Nuclear Services, Inc. Mobile Nuclear Laundry License No. 121 Charleston, SC	Potential for on site and off-site contamination.	Active license being monitored by State RCP.	
Oconee PWR Seneca, SC	Low-level contaminated sand and heat exchangers buried on site under 10 CFR 20.303 provisions. Low-level contaminated oil burned in boiler on site. On site settling ponds contain low-level contamination.	Monitored periodically by licensee.	

POTENTIALLY CONTAMINATED FACILITIES
REGION II
AGREEMENT STATE SITES

FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
American Nuclear Corporation Hot Cell with Underground Tank Oak Ridge, TN	Co-60 and Cs-137 contaminated on surface and subsurface.	Site contamination stabilized and site now owned by State. State monitoring program is in place.	
Tennessee Eastman Co. Specific License No. R-820-07 Kingsport, TN	Materials contaminated with C-14 and H-3 buried under 10 CFR 20.304 provisions.	Active license. Licensee plans for site clean-up.	
Aerojet Ordinance Co. Depleted Uranium processor under License No. 5-90009-E90 Jonesboro, TN	Surface contamination and contaminated sludge in settling ponds.	Contaminated areas from previous organization (TNS) cleaned up and ponds filled with clean soil.	
W. R. Grace Davidson Chemical Division Rare earth extraction under License No. S-33006-E90 Chattanooga, TN	Materials contaminated with Th and U daughters buried under 10 CFR 20.304 provisions.	Licensee operating under a clean-up plan monitored by State.	

POTENTIALLY CONTAMINATED FACILITIES
REGION II
AGREEMENT STATE SITES

FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
Vanderbilt University Broad License No. R-19021-G89 Nashville, TN	Contaminated incinerator waste buried under 10 CFR 20.304 provisions.	Licensee contracted Chem-Nuclear Systems to clean up site.	
Quadres, Inc. Decontamination services under License No. R-01037-K87 Oak Ridge, TN	Potential for onsite and off-site contamination.	Facility experienced contamination of sanitary sewer system. Facility monitored by State.	
David Witherspoon, Inc. Junk yard Knoxville, TN	Junk yard operator has specific license for possession of natural uranium and thorium scrap metals and SNM contaminated scrap. Contaminated metals, soil, and stored drums of soil.	Licensee under court order to dispose of licensed materials. DOE also involved in site clean-up.	
Dupont Smith, Inc. Junk yard Oak Ridge, TN	Junk yard has specific license no. S-0117-L3 for metals contaminated with source material. Surface contamination of ferrous and nonferrous metals. Uranium and thorium as well as other hazardous substances present.	Compliance actions pending. Licensee has requested that site be placed on EPA Super Fund list.	

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POTENTIALLY CONTAMINATED FACILITIES
REGION II
AGREEMENT STATE SITES

FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
E. I. Dupont Titanium ore processor under License No. S-5953-C5 New Johnsonville, TN	Soils, settling ponds, drainage ditches, and landfills contaminated with source material and NARM.	Monitored by State RCP. No plans for clean-up at this time.	

POTENTIALLY CONTAMINATED FACILITIES
REGION II
NRC-LICENSED SITES

FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
Fort McClellan U.S. Army NBC Warfare Training Facility (Federal Facility) Anniston, AL	Hot cell contaminated with Co-60 and Cs-137 10 mCi	Decontamination of all outside areas complete. Some contamination remains on walls and some fixtures. Plan to complete by license expiration date. Will do complete survey of area in 7 '92.	8/11/89, Region II monitors progress.
TVA Chemical Fertilizer Development Facility Muscle Shoals, AL	Phosphate slag (1.3E6 tons) containing 30 pCi/g of natural uranium stored on site.	Material in storage. Non-licensed activity-facility formulating monitoring plans in accordance with EPA controls on radon from phosphate sludge holdings.	08/16/89
Eglin AFB U.S. Air Force Training Facility (Federal Facility) Ft. Walton Beach, FL	Buried DU (spent ammunition) at five sites on base estimated to be slightly in excess of 9 lbs. 115 mCi Zinc-65 buried March 1960 in trench 8' deep, 30' long. Current activity of Zn-65 is 0.0038 pCi.	Air Force monitors site. (Information obtained from Brooks AFB RSC on 1/26/90)	Information obtained from 1972 report. Region IV monitors Air Force license.
St. Lucie PWR Generating Plant Ft. Pierce, FL	Contaminated sewage disposed of by spreading on land offsite. Sewage removed, but low-level contamination remained in soil.	Sewage solids now disposed of as radwaste. Ft. Pierce Sewage treatment plant not surveyed Offsite disposal area excavated (20'X60'X6-12"). On site contaminated dirt collected. Licensee to clean out on site waste treatment system.	4/9-13/90

POTENTIALLY CONTAMINATED FACILITIES
REGION II
NRC-LICENSED SITES

FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
Turkey Point PWR Generating Plant Homestead, FL	Several spent fuel pool leaks causing low level contamination of ground, pavement, and storm drain.	1987 levels: Co-58, 2.0 E-5 uCi/ml Co-60, 5.4 E-6 uCi/ml	10/23-27/89
Hatch BWR Generating Plant Appling County, GA	Tritium contamination of groundwater from valve leak (8.46E+5 pCi/l, highest, 1988) Low-level contamination of swampy area from spent fuel pool overflow: Cs-137, 10728 pCi/kg Cs-134, 3642 pCi/kg Co-60, 3628 pCi/kg.	Special groundwater sampling to monitor contamination of swampy area.	11/15-17/89
General Electric Nuclear Fuel Fabricator Fabricate low-enriched uranium fuel Wilmington, NC	Contaminated zirconium burial, contaminated holding ponds, and miscellaneous soil contamination due to liquid spills. Levels not identified.	Zirconium burial surrounded by groundwater monitoring wells. Contaminated holding ponds are still being used but action to recover bulk uranium is underway. Installing waste processing facility for nitrate and fluoride ponds.	1/16-19/90
Fort Bragg U.S. Army Ammunition Supply Point and Residue Yard Fayetteville, NC	Unauthorized burial of Pm-147 activated luminous sights from expended Light Anti-Tank Weapon (LAW) rocket system at ASP Residue Yard and surface of area in ASP.	Region III issued CAL 10/1/90. 10/90 Decontamination of areas complete in 3/91. Material buried in Residue Yard removed by Chem-Nuclear. Soil in ASP placed in fenced, marked pile. All soil samples below background. Sample on annual cycle.	

POTENTIALLY CONTAMINATED FACILITIES
REGION II
NRC-LICENSED SITES

FACILITY	NATURE OF PROBLEM	CURRENT STATUS	LAST INSPECTION
U.S. Air Force Reserve Base Military Training Facility San Juan, PR	Several A-7 aircraft containing DU parts and Kx-85 gauges buried after terrorist attack on aircraft.	USAF RIC considering removal of aircraft.	Region IV tracks Air Force RIC activities.
Weatinghouse Nuclear Fuel Fabricator Fabricate low-enriched uranium fuel Columbia, SC	Contaminated holding ponds (lined).	Ponds still in use. Cleaned previously and material sent for burial. Effluent to ponds now less than 30 pCi/gm total U and is sold in accordance with license condition.	5/30-6/2/89
Nuclear Fuel Services, Inc. Naval Nuclear Fuel Fabrication (former plutonium, low-enriched, and natural uranium and thorium processing) Erwin, TN	Burials per 10 CFR 20.304-contaminated holding ponds, contaminated soil, Pu facility. Potential that fourth pond, scrap burial near current ponds, and 2 burial trenches on leased railroad property are not in accordance with 10 CFR 20.304.	Groundwater monitoring wells surround burial grounds. Pond & Pu facility decommissioning underway. CSX RP requested termination of property lease along tracks near 2 trenches. Contents not well known (from 1969)-NRC/contractor studies: U-238 & Th-232	3/19-23/90
B&W - NNFD Naval Fuel Fabrication	Burials per 10 CFR 20.304 and contaminated holding ponds. 1989 analysis: alpha, 156 pCi/gm total Uranium- 6 microgram/gram sludge	Site still active and ponds being used. Records of contents of burial trenches have been lost by the licensee. Groundwater monitoring at burial trenches.	12/4-7/89