

## **SITE STATUS SUMMARIES**

## **AAR MANUFACTURING INC.**

### **1.0 SITE IDENTIFICATION**

Location: Livonia, MI  
License No.: STB-0362 (terminated)  
Docket No.: 04000235  
License Status: Terminated  
Project Manager: Kristina Banovac

### **2.0 SITE STATUS SUMMARY**

Thorium contaminated surface and subsurface soil has been identified at several locations in open land areas on the site. Ground water contamination is not present.

AAR submitted the final remediation plan (RP) on October 14, 1997, and the U.S. Nuclear Regulatory Commission (NRC) approved the revised RP on May 22, 1998. Remediation at the site began on October 12, 1998. AAR conducted geoprobe sampling onsite, to more precisely locate areas of contamination. As a result of the geoprobe sampling, additional soil contamination was identified in the open area on the western side of the property.

On September 17, 1999, AAR submitted a proposed revision to the approved RP. The proposed plan involved remediation of only soils containing thorium concentrations exceeding 116 pCi/g, which is the unimportant quantity (0.05 weight percent) of source material, exempt from regulation, established in 10 CFR 40.13(a).

After staff consultation with the Commission on this policy, NRC informed AAR that the revised remediation approach was not acceptable, by letter dated August 9, 2002. AAR is currently pursuing the restricted release option for a portion of its site.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

AAR is not a licensee. This site was owned and operated by Brooks & Perkins, Inc. from 1959 until the license was terminated in 1971. AAR purchased Brooks & Perkins in 1981. Since AAR is not directly responsible for the contamination onsite, it believes it should not be responsible for the cost of site remediation. If remediation costs become large, it is possible that AAR may legally challenge its responsibility to fund the remediation activities.

By SRM dated June 18, 2002, the Commission directed the staff to consider creative options that would make restricted release more available to a site, using AAR as a pilot for consideration of alternative approaches. If an alternative option is proposed for AAR, the option should be consistent with the LTR, but could be different from existing guidance documents supporting the rule.

AAR is currently pursuing the restricted release option for a portion of its site and plans to enter into a settlement agreement with the NRC on the restrictions and controls needed for restricted release. The agreement would include using a deed restriction that would outline the restrictions on the site, such as prohibiting farming and developing residential properties on the

site; the deed restriction would transfer to each subsequent owner of the property through the deed. The agreement and restrictive covenant legally would allow NRC or local and State governments to monitor and enforce the restrictions. Once AAR submits its restricted release decommissioning plans, the staff will complete its review and inform the Commission of its results and any policy issues that result from AAR's proposal.

Elevated levels of thorium have also been identified along the fence separating AAR and CSX Transportation, Inc. (CSX). Although contamination appears to be very limited, there is the potential that financial responsibility for the contamination on CSX property may become an issue. No remediation has been performed by CSX.

To date, public interest in remediation activities at the site is minimal.

#### 4.0 ASSUMPTIONS

- An environmental impact statement (EIS) will not be required.
- AAR will pursue restricted release.
- Standard assumptions.

#### 5.0 ESTIMATED DATE FOR CLOSURE 1/05

## **B&W PARKS OPERATING FACILITY**

### **1.0 SITE IDENTIFICATION**

Location: Parks Township, Armstrong County, PA  
License No.: SNM-414  
Docket No.: 07000364  
License Status: Active  
Project Manager: Amir Kouhestani

### **2.0 SITE STATUS SUMMARY**

Principal radioactive contaminants at the site are americium (Am)-241, plutonium (Pu), uranium, cobalt (Co)-60, and cesium (Cs)-137. The potential for groundwater contamination at the site is currently being evaluated under a monitoring sampling study.

B&W Parks Operating Facility (BWXT) submitted the decommissioning plan for the below-grade structures and soil in January 1996. BWXT is requesting unrestricted release of the site. The NRC approved the decommissioning plan in October 1998. BWXT earlier completed decommissioning of the above-grade structures at the site under its license, and in November 2001, completed its decommissioning of the soils and sub-grade structures and utilities under its decommissioning plan.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

None

Public interest in the in the site may increase at the time of license termination. No financial assurance issues have been identified at this time.

### **4.0 ASSUMPTIONS**

- Standard assumptions.
- Confirmatory surveys for individual building footprints will be done by Region I as remediation is completed.
- The site-wide confirmatory survey will be performed by the Oak Ridge Institute for Science and Education (ORISE).

### **5.0 ESTIMATED DATE OF CLOSURE 10/04**

## **B&W PARKS SHALLOW LAND DISPOSAL AREA**

### **1.0 SITE IDENTIFICATION**

Location: Parks Township, Armstrong County, PA  
License No.: SNM-2001  
Docket No.: 07003085  
License Status: Active  
Project Manager: Amir Kouhestani

### **2.0 SITE STATUS SUMMARY**

Principal radioactive contaminants at the site are natural, enriched, and depleted uranium, and lesser quantities of Am-241, plutonium, and thorium. The U.S. Army Corps of Engineers (USACE) plans to study the potential for ground water contamination at the site.

This site is designated by USACE as a Formerly Utilized Sites Remedial Action Program (FUSRAP) site. In December 2001, Congress directed USACE to remediate the site. In March 2002, USACE issued a final site Preliminary Assessment (PA) in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA). The PA concludes that USACE will remediate the site in accordance with CERCLA and FUSRAP requirements, and consistent with the USACE-NRC Memorandum of Understanding (MOU). In December 2001, staff conditioned the B&W Parks Shallow Land Disposal Area (BWXT-SLDA) license to allow for an eventual suspension of the license when USACE completes its Record of Decision for the site under CERCLA, and requests jointly with the licensee, license suspension consistent with the MOU. In June 2003, USACE initiated its on-site investigative activities.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

In the event that USACE's congressionally mandated site remediation does not take place, NRC staff anticipates that BWXT may request license termination, with restrictions on future land use. The Pennsylvania Department of Environmental Protection (PADEP) has stated that it will not assume responsibility for the site (i.e., become the institutional control authority) if it is decommissioned with land-use restrictions.

There is significant public and Congressional interest in the site. Congressman Murtha is closely following USACE's site remediation efforts.

No financial assurance issues have been identified at this time.

### **4.0 ASSUMPTIONS**

- Standard assumptions.
- The current site decommissioning schedule is largely dependent on availability of federal funding for this FUSRAP site.
- BWXT will request license termination with restrictions on future land use, should they be required to cleanup the site.

### **5.0 ESTIMATED DATE OF CLOSURE 10/09**

## **CABOT PERFORMANCE MATERIALS INC. (CABOT)**

### **1.0 SITE IDENTIFICATION**

Location: Reading, PA  
License No.: SMC-1562  
Docket No.: 04009027  
License Status: Active (possession only)  
Project Manager: Ted Smith

### **2.0 SITE STATUS SUMMARY**

Contamination at the site consists of surface and subsurface uranium and thorium contamination, in the form of slag. Ground water contamination has not been identified at the site.

The March 2000, decommissioning plan (DP), as supplemented in November 2002, proposes unrestricted release of the site in its current condition. NRC staff issued a Request for Additional Information (RAI) in March 2003, for additional information regarding site characterization, source term modeling, and previously unconsidered aspects of meeting the "as low as is reasonably achievable" (ALARA) requirements of the LTR at the site. A licensee response is anticipated in fall 2003.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

While conducting research and analysis on slags, the NRC staff identified potential issues regarding both the quantity and concentration of radioactive slag at the site. These and similar questions have been raised by PADEP as significant concerns about the adequacy of the characterization of the site. The licensee is currently considering the use of gamma logging and emplacement of a riprap cover as an engineered barrier to address these questions.

No major financial assurance issues are associated with this site. A potential financial assurance concern would arise if off-site disposal were required.

Public interest in the decommissioning activities at the site has been increasing since late 2002.

### **4.0 ASSUMPTIONS**

- Cabot's proposal for unrestricted release without remediation is valid.
- Cabot's site characterization is acceptable.
- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE 9/04**

## **COMBUSTION ENGINEERING (C.E.) HEMATITE**

### **1.0 SITE IDENTIFICATION**

Location: Festus Township, Jefferson County, MO  
License No.: SNM-33  
Docket No.: 07000036  
License Status: Active  
Project Manager: G. Mike McCann, R III

### **2.0 SITE STATUS SUMMARY**

Contamination at the site consists of uranium and thorium in the soil and groundwater.

Westinghouse plans to follow the site studies and future remedial activities in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the goals of the National Contingency Plan. Westinghouse has identified several areas of Concern (14 areas) on site and has proposed a work plan for the site Remedial Investigation/Feasibility Study in accordance with CERCLA.

On June 7, 2000, Westinghouse submitted notification of its intent to cease principal licensed activities. In a letter dated October 30, 2000, Westinghouse proposed an alternate schedule for submission of a final DP. By letter dated May 30, 2001, NRC approved an April 2004, DP submittal date. Westinghouse has performed, within its permitted license activities, certain equipment decontamination and dismantlement and has shipped equipments to its facility in South Carolina.

There is local, state, and Congressional interest in how the site is decommissioned.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

No financial assurance issues have been identified at this time. The staff has not identified any major offsite environmental issues that will not be addressed during decommissioning of the facility.

### **4.0 ASSUMPTIONS**

- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE    TBD**

## **COMBUSTION ENGINEERING (C.E.) WINDSOR**

### **1.0 SITE IDENTIFICATION**

Location: Windsor, CT  
License No.: 06-00217-06  
Docket No.: 030-03754  
License Status: Timely Renewal  
Project Manager: James Kottan, R I

### **2.0 SITE STATUS SUMMARY**

Radioactive contamination at the site consists of soils and building and equipment surfaces contaminated with uranium and by-product material from operations that occurred from the late 1950s until 2001.

A revised site-wide DP was received by NRC on April 7, 2003. Estimated time for remediation of areas associated with NRC licensed activities is approximately one year after approval of the DP. The acceptance review of the DP will be delayed until the licensee submits a revised dose modeling scenario including revised DCGLs. The revised DCGLs are expected to be submitted sometime by December 2003.

Under the current license, the licensee is removing interior systems, components, ducts, piping, conduit, etc. from the buildings in Building Complexes 2, 5, and 17. Equipment and material is being cleared from the site using Reg Guide 1.86 criteria as permitted by the current license. The present license also permits the licensee to deconstruct the buildings of Building Complexes 2, 5, and 17 down to grade level only.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

Although the State of Connecticut had filed a hearing request, which was later withdrawn, public interest in the area is not high.

There are no major technical or regulatory issues.

### **4.0 ASSUMPTIONS**

Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE    TBD**



## **DOW CHEMICAL COMPANY (DOW)**

### **1. SITE IDENTIFICATION**

Location: Bay City, MI  
License No.: STB-527  
Docket No.: 04000017  
License Status: Active  
Project Manager: Sam Nalluswami

### **2.0 SITE STATUS SUMMARY**

Contamination at the site consists of thorium contaminated slag storage piles. Ground water contamination at the site has been identified.

Dow submitted a DP on October 12, 1995. Dow is requesting unrestricted release of the site. The DP was approved in July 1997. In September 2000, Dow informed the NRC that decommissioning of the Bay City site had been complicated by a larger volume of contamination than originally estimated, the presence of wetlands, and winter flooding. In January 2002, Dow submitted a revised supplement to amend the previously approved DP. The staff issued an RAI on December 26, 2002. The staff and licensee are working to resolve the RAI issues.

There are no immediate radiological hazards at the site.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

The staff has not identified any major off-site environmental issues that will not be addressed during decommissioning of the facility.

Dow will submit a decommissioning funding plan with a detailed cost estimate upon acceptance of a decommissioning approach, but before approval of the DP.

There has been minimal public interest in the decommissioning activities at this facility.

### **4.0 ASSUMPTIONS**

- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE 12/04**

## **FANSTEEL INC.**

### **1.0 SITE IDENTIFICATION**

Location: Muskogee, OK  
License No.: SMB-911  
Docket No.: 040-07580  
License Status: Expired (possession only)  
Project Manager: Jim Shepherd

### **2.0 SITE STATUS SUMMARY**

Contaminants at the site include natural uranium and decay products, and natural thorium and decay products. Chemical contamination in the form of metals including tantalum, niobium, chromium, antimony, tin, barium, arsenic; ammonia fluoride and methyl isobutyl ketone are also present. Soil and Groundwater contamination are non-uniformly distributed.

Fansteel decontaminated approximately 35 acres of the 110-acre Muskogee facility designated as the "Northwest Property," and the NRC released this area for unrestricted use. Fansteel has an NRC license dated March 25, 1997, to complete the processing of ore residues, calcium fluoride residues, and wastewater treatment residues containing uranium and thorium, in various site impoundments. In November, 2001, Fansteel notified NRC that it had suspended operation of the facility. The current license expired in September, 2002; the renewal application was denied because Fansteel wrote off the cost of the facility in its bankruptcy and did not provide sufficient financial assurance.

On January 15, 2002, Fansteel and its U.S. subsidiaries filed for voluntary bankruptcy (Chapter 11) in the U.S. Bankruptcy Court for the District of Delaware; one subsidiary in Mexico and one in Barbados were not included in this action.

On July 24, 2003, Fansteel submitted a request for license amendment to approve the DP submitted on January 14, 2003, as amended by letter dated May 8, 2003, containing a phased decommissioning approach. Fansteel is requesting unrestricted release of the site. The staff is currently reviewing the DP.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

Fansteel has provided a total of about \$4.5 million in financial assurance. The previous Fansteel estimate for decommissioning, by deposition to the Bankruptcy Court, is \$57 million for off-site disposal of all wastes greater than 10 pCi/g total, a license condition limit. The revised estimate of \$26 million is based on dose criteria of 10 CFR 20.1402 using an industrial land use scenario with no ground water pathway. It estimates an additional \$14 million for commitments to Oklahoma Department of Environmental Quality (ODEQ), primarily ground water remediation. Because it is in a bankruptcy proceeding, Fansteel states it is not able to provide the additional assurance.

There is high public interest about the decommissioning of this site from two primary parties: the State of Oklahoma and the Cherokee Nation.

#### 4.0 ASSUMPTIONS

- The proposed phased decommissioning and use of license conditions in lieu of licensee submittals will satisfactorily resolve all issues.
- Standard assumptions.

5.0 ESTIMATED DATE FOR CLOSURE    2023+

## **HERITAGE MINERALS INC. (HMI)**

### **1.0 SITE IDENTIFICATION**

Location: Lakehurst, New Jersey  
License No.: SMB-1541  
Docket No.: 040-08980  
License status: Renewed - 9/20/99 (possession/decommissioning only)  
Project Manager: Craig Gordon, R I

### **2.0 SITE STATUS SUMMARY**

Contamination at the site consists of monazite sand from process operations involving rare mineral extraction.

Heritage Minerals Inc. (HMI) submitted its DP/Final Status Survey Plan (FSSP) in November 1997. NRC approved the DP/FSSP in October 1999. The HMI DP/FSSP provided the basis for disposal of thorium contaminated sand and remediation of mill buildings and equipment. HMI requested unrestricted release for the site after license termination.

HMI did not meet the 24 month requirement to complete site decommissioning, and as a result, a predecisional enforcement conference was held on January 8, 2003, to discuss a potential violation. The decision to take enforcement action is being held in 60-day abeyance pending HMI's response to those issues related to remediating the site to decommissioning plan commitments. A sampling program was performed in November 2002, to quantify licensable and residual material remaining onsite.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

ORISE surveys showed that removal of contaminated material around the pile area and in the two process (mill) buildings was not sufficient to meet NRC unrestricted use guidelines. HMI initially disagreed with the ORISE methodology for counting residual contamination on surfaces and equipment in the mills, but submitted a revised protocol for measuring surface contamination which meets NRC guidelines. A dose assessment based on licensee and ORISE survey data was prepared by the NRC staff to determine derived concentration guideline limit (DCGL) values for residual material. The DCGLs were comparable to approved DP commitments and SDMP Action Plan guidelines.

HMI does not believe they should be responsible for contaminated areas from previous operations which are below the level for exempt source material quantities. Additional soil excavation was performed in April 2003, and a final survey report for the outdoor areas was submitted to NRC in June 2003.

The entire site covers a large area in Lakehurst, New Jersey, while the licensed material was limited to a very small outdoor area and mill buildings. NRC-licensed portions of the site are within an area of enhanced background, raising regulatory issues with New Jersey over continued radiological exposure if NRC terminates the license. The State believes that NRC jurisdiction should extend to other areas which contain exempt quantities of uranium and thorium, but do not exceed unrestricted use criteria. The primary State issue is that once NRC

terminates the license, the large contaminated areas of the site not covered by the license could involve costly remediation, some of which may be the State's responsibility.

#### 4.0 ASSUMPTIONS

- Enforcement action will not impede the licensee's progress to plan and schedule completion of remediation activities.
- Standard assumptions.

#### 5.0 ESTIMATED DATE FOR CLOSURE 4/04

## **JEFFERSON PROVING GROUND**

### **1.0 SITE IDENTIFICATION**

Location: Madison, Indiana  
License No.: SUB-1435  
Docket No.: 04008838  
License Status: Active (possession only)  
Project Manager: Tom McLaughlin

### **2.0 SITE STATUS SUMMARY**

Contamination on site consists of depleted uranium (DU) in the soil. However, there is a concern for future groundwater contamination. The site has been closed for the testing of all ordnance including depleted uranium rounds since 1995. The monitoring of DU in soil, groundwater, surface water, and sediment continues on a bi-annual basis. The U.S. Army submitted a revised DP in June 2002. NRC approved the DP on October 1, 2002.

The staff is proposing to remove the JPG site from the Site Decommissioning Management Plan (SDMP) through the establishment of a possession-only license that could be indefinite. Decommissioning will be deferred until the Army can safely collect data needed to validate their off-site transport models. The possession-only license will be issued for a 5-year renewable period, and the status of unexploded ordnance remediation technology will be evaluated at the license renewal to determine if it is appropriate to begin site decommissioning. The Army plans to submit a license amendment request in September 2003.

There are no immediate radiological hazards at the site. Unexploded ordnance at the site represents a significant non-radiological hazard. The staff has not identified any major off-site environmental issues that will not be addressed during decommissioning of the facility.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

The presence of unexploded ordnance, the associated risk, and cost for cleanup of this material, as well as potential contamination of groundwater, are complicating remediation.

The licensee has signed a memorandum of agreement with the Department of the Interior and the Department of Defense (Air Force) for long-term institutional control of the site.

In January 2000, Save the Valley, a local environmental group, requested a hearing on the DP, citing that the DP does not adequately describe the decommissioning process and does not provide adequate assurance for long-term control.

No financial assurance issues have been identified at this time.

### **4.0 ASSUMPTIONS**

- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE** Indefinite possession-only license

## **KAISER ALUMINUM SPECIALTY PRODUCTS (KAISER)**

### **1.0 SITE IDENTIFICATION**

Location: Tulsa, OK  
License No.: STB-472 (terminated)  
Docket No.: 040002377  
License Status: Terminated  
Project Manager: John Buckley

### **2.0 SITE STATUS SUMMARY**

The NRC added Kaiser to the SDMP on August 19, 1994. During site characterization Kaiser identified thorium concentrations above the unrestricted-release limits on Kaiser property and in soil located adjacent to the Kaiser property. Kaiser is remediating the site in two phases. In Phase 1, Kaiser remediated the land adjacent to the Kaiser property. Remediation of the Kaiser property will be performed during Phase 2. Kaiser is requesting unrestricted release of the site.

Phase 1 remediation is complete. Kaiser submitted its FSSR to NRC on August 16, 2001. The staff approved the Final Status Survey Report (FSSR) March 7, 2002. Kaiser submitted the DP for the Kaiser property (Phase 2) on May 25, 2001. The Phase 2 DP was approved on June 10, 2003.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

On February 12, 2002, Kaiser filed for Bankruptcy (Chapter 11 reorganization). Kaiser has informed NRC that the bankruptcy will not affect ongoing remediation activities at the site.

To date there is minimal public interest in the decommissioning activities at the site. The staff has not identified any major off-site environmental issues that will not be addressed during remediation of the facility.

### **4.0 ASSUMPTIONS**

- Since Kaiser is a non-licensee, there is no requirement to offer the public an opportunity for a hearing.
- For current planning purposes, it is assumed that Kaiser will not become a licensee.
- Standard assumptions.

**5.0 ESTIMATED DATES FOR CLOSURE**    Phase 1 closure - 3/02  
   Phase 2 closure - 5/07

## **KERR McGEE - CIMARRON**

### **1.0 SITE IDENTIFICATION**

Location: Crescent, OK  
License No.: SNM-928  
Docket No.: 07000925  
License Status: Active (possession only)  
Project Manager: Ken Kalman

### **2.0 SITE STATUS SUMMARY**

Contamination at the site consists of uranium contamination in groundwater at Burial Area 1, and Technetium-99 (Tc-99) in the groundwater in the vicinity of Waste Pond 1 and 2. Concentrations of Technetium-99 that are within applicable release criteria have also been found in Burial Area 1.

The licensee submitted a DP in April 1995, and a DP groundwater evaluation report in July 1998. In coordination with the ODEQ, the NRC approved Cimarron's DP in August 1999. The staff added a license condition to note that it would not terminate Cimarron's license until Cimarron demonstrates that the total uranium concentrations in all wells have been below the groundwater release criteria for eight consecutive quarterly samples (2 years). Cimarron is scheduled to submit its remediation work plan in September 2003.

In April 1996, the NRC amended Cimarron's license to release, for unrestricted use, the Phase I subareas of the site - areas that had no history of licensed activities, and concentrations of uranium in the soil below NRC's guidelines. Cimarron is also submitting FSSRs for the unrestricted release of other discrete subareas of the site. NRC staff released Subarea K in May 2002, and will not release Subarea G until there is satisfactory resolution of issues pertaining to the occurrence of Tc-99 in Subarea G.

The site is also licensed for on-site disposal of up to 500,000 cubic feet of Option 2 (of the 1981 Branch Technical Position) contaminated soil. NRC staff reviewed Cimarron's Subarea N Report (submitted in January 2002) and performed its independent confirmatory survey in June 2002. Due to a recent occurrence of groundwater exceeding the 180 pCi/l release limit in a nearby portion of Subarea K, NRC is delaying release of Subarea N until the groundwater issue is resolved. Cimarron will not submit its Subarea F FSSR until it has resolved all groundwater issues in that subarea. As a result, Cimarron currently anticipates submitting the Subarea F FSSR in May 2005. NRC currently anticipates terminating the license in May 2007. There are no immediate radiological hazards at the site.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

Groundwater samples have shown concentrations of uranium, technetium-99, fluorides, and nitrates. Technetium-99 concentrations appear to be diminishing over time. NRC staff is currently in a dialogue with Cimarron regarding uranium-contaminated groundwater plume emanating from the vicinity of Burial Area 1. Cimarron is considering alternatives for groundwater remediation. ODEQ will retain controls over the non-radiological groundwater components.



There is minimal public interest in the decommissioning activities at this site. No financial assurance issues have been identified at this time.

#### 4.0 ASSUMPTIONS

- At the time of license termination Cimarron will be able to submit a report to demonstrate that uranium concentrations in the groundwater have been below 180 pCi/l for the past two years.
- Standard assumptions.

#### 5.0 ESTIMATED DATE FOR CLOSURE 5/07

## **KERR McGEE - CUSHING REFINERY**

### **1.0 SITE IDENTIFICATION**

Location: Cushing, Oklahoma  
License No.: SNM-1999  
Docket No.: 070-03073  
Licensing Status: Active/Decommissioning  
Project Manager: Derek Widmayer

### **2.0 SITE STATUS SUMMARY**

Contamination at the site consists of uranium and thorium in the soil and groundwater.

The licensee submitted a DP for the site, in April 1994, that included a request for on-site disposal. The licensee revised the DP on August 17, 1998. The licensee is requesting unrestricted release of the site. In place of on-site disposal, the licensee proposed to ship the waste exceeding the SDMP Action Plan Criteria to Envirocare, for disposal. The staff completed its review of this revised DP (license amendment 10, dated August 23, 1999). The licensee has completed shipping about 90 percent of its radioactive contaminated waste to Envirocare. The licensee has released portions of the site for unrestricted use (license amendments 13 and 16).

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

During a meeting on January 15, 2002, the licensee informed the staff that there is contaminated groundwater leaving the licensed site. The licensee has developed a residual groundwater contamination limit and has submitted a license amendment to incorporate these alternate concentration limits into the license.

There is moderate public interest in site remediation activities. No financial assurance issues have been identified at this time.

### **4.0 ASSUMPTIONS**

- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE 12/05**

## KISKI VALLEY WATER POLLUTION CONTROL AUTHORITY (KVVWPCA)

### 1.0 SITE IDENTIFICATION

Location: Vandergrift, PA  
License No.: No license  
Docket No.:  
License Status: Non-licensee  
Project Manager: Ken Kalman

### 2.0 SITE STATUS SUMMARY

Contamination consists of uranium-contaminated sludge ash, with an average concentration of ~147 pCi/g and ~4 percent enrichment distributed in an on-site lagoon. The contamination resulted from the incineration and subsequent re-concentration of effluents released (within regulatory limits) from the nearby Babcox & Wilcox facilities. KVVWPCA and its contractors have characterized the contamination in the lagoon with extensive sampling. NRC transmitted site-specific remediation guidance to KVVWPCA in November 1999. KVVWPCA plans on submitting its remediation plan by December 31, 2003. It is anticipated that KVVWPCA will request unrestricted release of the site.

### 3.0 MAJOR TECHNICAL OR REGULATORY ISSUES

KVVWPCA is not a licensed facility and currently it is unlikely that it possesses the funds necessary to remove and dispose of the contaminated sludge ash off-site. For on-site remediation alternatives, NRC would apply the requirements of 10 CFR Part 20 Subpart E. For off-site disposal alternatives (excluding disposal at a licensed, LLW disposal facility), the requirements of 10 CFR 20.2002 would apply and any residual contamination at the KVVWPCA site would have to meet the requirements of Subpart E. Disposal of all the sludge ash at a licensed LLW disposal facility would be an acceptable, but expensive option.

NRC staff is coordinating with the Pennsylvania Department of Environmental Protection (PADEP) and KVVWPCA, in advance of the December 31, 2003, remediation plan submittal. PADEP has requested that NRC defer regulation of the KVVWPCA ash lagoon to the State, under Pennsylvania's Solid Waste Management Act and Clean Streams Law. NRC staff is considering, and has not yet responded to, PADEP's July 7, 2003, request. Additionally, PADEP informed KVVWPCA in an April 3, 2003, letter, that disposal of the waste in an appropriately licensed or permitted facility is in the best interest of all parties, that disposal of the waste in a Pennsylvania municipal waste landfill would be prohibited, and that PADEP believes that permanent placement of the ash in the lagoon "would constitute unlawful shallow land burial of low level radioactive waste."

There is political and public interest about remediation of the KVVWPCA site.

### 4.0 ASSUMPTIONS

- Standard assumptions.

### 5.0 ESTIMATED DATE FOR CLOSURE 6/12

## **MALLINCKRODT CHEMICAL INC. (MALLINCKRODT)**

### **1.0 SITE IDENTIFICATION**

Location: St. Louis, MO  
License No.: STB-401  
Docket No.: 40-6563  
License Status: Decommissioning  
Project Manager: John Buckley

### **2.0 SITE STATUS SUMMARY**

Contaminants at the Mallinckrodt site are: U-238; U-235; U-234 and progeny; Th-230; Ra-226; Th-232; Th-228 and progeny; Ra-228; and K-40. Groundwater contamination is not present.

Decommissioning at the Mallinckrodt site will take place in two phases. Phase 1 will decommission the buildings and equipment to the extent that whatever remains on-site will be released for unrestricted use. Phase 2 will complete the decommissioning of the building slabs and foundations, paved surfaces, and all subsurface materials to the extent that they can be released for unrestricted use.

Mallinckrodt submitted the Phase 1 DP on November 20, 1997. After several RAI and several revisions to the DP, NRC approved the Phase 1 DP on May 3, 2002. Remediation at the site began in July 2002. Mallinckrodt submitted its Phase 2 DP on May 15, 2003. Mallinckrodt is requesting to remediate the site to meet the unrestricted release criteria of 10 CFR Part 20, Subpart E.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

The Mallinckrodt site has been in operation since 1867 and has produced a wide range of products. In addition to the extraction of columbium and tantalum carried out under NRC license STB-401, various uranium compounds were extracted under contract to the Manhattan Engineering District and the Atomic Energy Commission (MED-AEC). Remediation of MED-AEC radiological constituents is currently being performed under the U.S. Department of Energy's (DOE's) FUSRAP by USACE. USACE and Mallinckrodt have yet to agree on who has remediation responsibility for several areas within the facility. Further, since the NRC and the USACE are regulating remediation at the Mallinckrodt site, there is the potential that two different release criteria will be used at the site, making it difficult to release the areas remediated under NRC jurisdiction.

No financial assurance issues have been identified at this time. The staff has not identified any major off-site environmental issues that will not be addressed during decommissioning of the facility. Public interest in the decommissioning activities at the site is moderate.

### **4.0 ASSUMPTIONS**

- Standard assumptions.

### **5.0 ESTIMATED DATES FOR CLOSURE** Phase 1 - 1/06, License Termination - 7/08

## MICHIGAN DEPARTMENT OF NATURAL RESOURCES (MDNR)

### 1.0 SITE IDENTIFICATION

Location: Kawkawlin, Bay County, Michigan  
License No.: SUC-1581  
Docket No.: 04009015  
License Status: Active (possession only)  
Project Manager: Sam Nalluswami

### 2.0 SITE STATUS SUMMARY

The site covers about 3 acres and is contaminated with thorium. The contamination came from magnesium-thorium alloy production at a defunct former licensee. The contaminated soil is covered with a 1.5 m (5 ft) thick clay cap and encapsulated with 0.9 m (3 ft) thick bentonite slurry walls. Ground water contamination is not an issue at this site.

MDNR submitted the DP on March 3, 2003, with addendums on April 22, 2003. MDNR is requesting unrestricted release of the site. The DP acceptance review indicated insufficient information for a detailed technical review and the DP was rejected in August 2003.

There are no immediate radiological hazards at the site. The staff has not identified any major off-site environmental issues that will not be addressed during decommissioning of the facility.

### 3.0 MAJOR TECHNICAL OR REGULATORY ISSUES

In 1984, the neighboring licensee undertook encapsulation measures at the site to isolate and prevent the migration of the non-radiological hazardous wastes. Encapsulation measures included the installation of a 1.5m-thick (5 ft) clay cap and 0.9m-thick (3 ft) bentonite slurry walls. As a result, this site involves buried waste that is likely mixed with hazardous chemical wastes. Remediation of the site will require coordination with Michigan Department of Environmental Quality (MDEQ), which regulates hazardous chemicals. The licensee concluded that the mixture of non-radiological hazardous and radioactive waste would make the wastes unacceptable at a chemical or radioactive waste disposal site (other than an authorized mixed-waste disposal facility).

Currently, the State of Michigan does not want the clay cap over the wastes to be removed, because of the non-radiological hazards of the site. However, it is uncertain whether the site can be sufficiently characterized and decommissioned without removal of parts of the cap.

No financial assurance issues have been identified at this time. There is minimal, if any, public interest, to date. Public interest is expected to continue to be minimal if the clay cap is not removed and waste removal is kept to a minimum.

### 4.0 ASSUMPTIONS

- Standard assumptions.

### 5.0 ESTIMATED DATE FOR CLOSURE 4/09

## **MOLYCORP INC.**

### **1.0 SITE IDENTIFICATION**

Location:	Washington, PA
License No.:	SMB-1393
Docket No.:	040-08778
License Status:	Timely renewal
Project Manager:	Tom McLaughlin

### **2.0 SITE STATUS SUMMARY**

Molycorp produced a ferro-niobium alloy from an ore that contained natural thorium with some uranium. The operation resulted in the production of thorium-bearing slag that was used as fill over portions of the site.

Molycorp submitted its original DP in July 1995. After consultation with NRC staff, the licensee stated its intention to submit a revised DP in two parts. Part I of the DP addressed cleanup of the contaminated portion of the site to comply with the SDMP criteria. Part II would address disposal of material from York and Washington in an impoundment on the Washington site and would comply with the LTR. Part 1 of the revised DP was submitted on June 30, 1999. The staff approved the Part I DP on August 8, 2000.

In January 2001, Molycorp withdrew its amendment request for approval of the Part II DP (on site disposal cell). While Molycorp will continue to decommission the Washington facility under its previously approved Part I DP, it will now dispose of the material off site and will ultimately seek a unrestricted release of the site. On February 26, 2001, Molycorp informed NRC that it finished removal of all its stored above ground waste and shipped the material to the Envirocare facility in Clive, Utah.

Molycorp now has torn down all of its buildings and has sent non-rad contaminated materials off site and rad materials to Waste Control Specialists (WCS). All buildings and foundations have been removed from the site. (The licensee is conducting a new site characterization to determine the amount and extent of contamination.)

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

Public concern in the Canton Township, City of Washington area, is moderate. Congressional interest also mirrors that found in the local communities.

### **4.0 ASSUMPTIONS**

- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE 10/05**

## **MOLYCORP INC.**

### **1.0 SITE IDENTIFICATION**

Location:	York, PA
License No.:	SMB-1408
Docket No.:	04008794
License Status:	Timely renewal
Project Manager:	Tom McLaughlin

### **2.0 SITE STATUS SUMMARY**

Molycorp purchased the site in 1930 and processed rare earth ores, containing low quantities of thorium and uranium, in large volumes from 1965 to 1992. Contaminants at the site include thorium and uranium. Low concentrations of uranium are found in the ground water at the site.

Molycorp submitted its original DP in August of 1995, proposing to clean-up the site to meet the SDMP Action Plan criteria for unrestricted use. The licensee provided a supplement to the DP on June 30, 1999. The DP was approved on June 6, 2000.

All the building structures have now been taken down. About two-thirds of the site has been excavated and radiological contaminated material shipped off site to WCS. On May 21, 2002, Molycorp informed NRC that a significant increase in volume of contaminated material being shipped off site has adversely impacted both the project time line and budget. On June 17, 2002, Molycorp requested an extension from the regulatory requirements of the Timeliness Rule. The extension from the Timeliness Rule was granted on June 24, 2002. Molycorp is completing the FSS of the remaining 2 acres and will submit the results in November 2003.

There are no immediate radiological hazards at the site.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

Public interest appears minimal at the present time. No financial assurance issues have been identified at this time.

### **4.0 ASSUMPTIONS**

- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE 6/04**

## **PERMAGRAIN PRODUCTS, INC.**

### **1.0 SITE IDENTIFICATION**

Location: Karthaus, PA  
License No.: 37-17860-02  
Docket No.: 030-29288  
License Status: Active  
Project Manager: James Kottan, RI

### **2.0 SITE STATUS SUMMARY**

Strontium-90 (Sr-90) is the main contaminant of concern at the facility which used the Sr-90 in the manufacture of thermoelectric generators. Sr-90 contamination is found in surface and subsurface soil. Contaminated groundwater is not present at the site.

The Commonwealth of Pennsylvania (Commonwealth) owns the site, leases it to Permagrain Products, Inc. (PPI), and has provided the financial assurance. PPI submitted its DP in April 1998 and began decommissioning in July 1998. The PPI site will be remediated sufficient to release the site for unrestricted use.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

On November 12, 2002, NRC was notified by PPI that commercial operations at the site had ceased as of November 11, 2002, in preparation for a potential bankruptcy filing. NRC was notified on November 26, 2002 that limited commercial production work had resumed at the site. Since that time, however, PPI has gone into bankruptcy. Because PPI has gone into bankruptcy, the license was transferred to the Commonwealth, Department of Environmental Protection, Bureau of Radiation Protection on December 17, 2002.

In June 2002, the U.S. Department of Justice rejected the Commonwealth's claim that the Federal Government should provide the funding to remediate the site because of a past contract between Martin Marietta and the Atomic Energy Commission. The Commonwealth had informed the NRC that the portion of the site containing legacy contamination will be placed into a secure, monitored status until this funding issue is resolved. In April 2003, the Commonwealth received seven million dollars from the Federal Government to continue clean-up of the facility. In February 2003, the Commonwealth submitted a license renewal application, including a revised DP. Decommissioning efforts will resume in 2003 after NRC renews the license, including the revised DP.

Public interest in the decommissioning activities at the site is low.

### **4.0 ASSUMPTIONS**

- The licensee is grandfathered under Option 1 of the Branch Technical Position.
- The change to greenfielding the site will not jeopardize the release guideline status.
- Standard assumptions.

5.0 ESTIMATED DATE FOR CLOSURE 10/04, dependent upon funding



## **SAFETY LIGHT CORPORATION**

### **1.0 SITE IDENTIFICATION**

Location: Bloomsburg, PA  
License No.: 37-00030-02  
Docket No.: 030-05980  
License Status: Active  
Project Manager: Marie Miller, RI

### **2.0 SITE STATUS SUMMARY**

Safety Light Corporation (SLC) is licensed to perform site characterization and decommissioning activities. Contamination at the site is from the manufacturing operations of self-luminous watch and instrument dials and other items involving Ra-226, Cs-137, Sr-90, and Am-241. Radioactive waste was disposed on site in three primary locations: silos, lagoons, and a waste dump. Primary soil contaminants include Ra-226 and Cs-137 with small amounts of Am-241. The onsite ground water is also contaminated with H-3, Sr-90, and Cs-137.

In October and December 2000, SLC submitted a DP to the NRC which called for a "task by task" approach to decommissioning because of limited funding availability. The DP presents decommissioning activities which will make the site suitable for unrestricted release. This approach was approved by NRC in December 2001, and on August 15, 2002, NRC amended the SLC license to approve the work plan for processing and sorting waste that was removed from two underground silos in the fall of 1999.

NRC staff continues to coordinate activities with U.S. Environmental Protection Agency (EPA) and PADEP regarding remediation of the SLC site. An EPA Administrative Order of Consent with SLC for the sorting, characterization, and re-packaging of the drums of mixed waste and radioactive waste that were removed from the onsite silos, became effective on February 3, 2003. A separate EPA Order will be prepared for disposal of the waste. Disposal costs are expected to exceed the licensee's decommissioning funds, so EPA is expected to propose a unilateral Order and use EPA emergency removal funds.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

Lack of financial assurance remains the key issue. Effective remediation work cannot be performed because of limited funding. SLC is proposing that the remaining funds be used to characterize, re-package and dispose of waste that was removed from underground silos.

Public interest in the decommissioning activities at the site is limited.

### **4.0 ASSUMPTIONS**

- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE 12/04**

## **SCA SERVICES (SCA)**

### **1.0 SITE IDENTIFICATION**

Location: Kawkawlin, Bay County, Michigan  
License No.: SUC-1565  
Docket No.: 04009022  
License Status: Active (possession only)  
Project Manager: Sam Nalluswami

### **2.0 SITE STATUS SUMMARY**

A portion of the site is contaminated with thorium from magnesium-thorium alloy production at a defunct former licensee. The contaminated soil is covered with a clay cap and encapsulated with slurry walls. There are also hazardous wastes present at the site. Site characterization including the potential for ground water contamination is being evaluated. The site is being regulated under the State superfund law. NRC issued a license amendment on October 10, 2001, extending the submittal date of the DP to September 30, 2003. The licensee is investigating a restricted-release option.

There are no immediate radiological hazards at the site. The staff has not identified any major off-site environmental issues that will not be addressed during decommissioning of the facility.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

The licensee undertook cap repair measures at the site to isolate and prevent the migration of the non-radiological hazardous wastes. Remediation of the site will require coordination with Michigan Department of Environmental Quality, which regulates hazardous chemicals. The mixture of non-radiological hazardous and radioactive waste would make the wastes unacceptable at a chemical or radioactive waste disposal site (other than an authorized mixed-waste disposal facility). The licensee agreed to implement a monitoring program and to place a restriction on the deed prohibiting intrusion. Currently, the State of Michigan does not want the clay cap over the wastes to be removed, because of the non-radiological hazards of the site.

There is minimal, if any, public interest to date. Public interest is expected to remain minimal if the clay cap is not removed. No financial assurance issues have been identified to date.

### **4.0 ASSUMPTIONS**

- SCA Services will choose restricted release.
- SCA Services will find acceptable long-term institutional control for the site.
- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE 7/11**

## **SEQUOYAH FUELS CORPORATION (SFC)**

### **1.0 SITE IDENTIFICATION**

Location: Gore, OK  
License No.: SUB-1010  
Docket No.: 04008027  
License Status: Expired (possession only)  
Project Manager: Myron Fliegel

### **2.0 SITE STATUS SUMMARY**

There is surface, subsurface, and groundwater contamination from uranium and thorium throughout the site, and uranium, thorium, and radium in raffinate sludge ponds. There is also chemical contamination of arsenic, molybdenum, and copper in the soils, which is being addressed under a Resource Conservation and Recovery Act (RCRA) Administrative Order on Consent (AOC) issued by the EPA Region 6.

In January 2001, SFC requested that NRC determine that the majority of waste at the facility should be classified as byproduct, as defined in Atomic Energy Act paragraph 11(e)(2). By SRM dated July 25, 2001, the Commission concluded that the front-end waste at SFC could be classified as Section 11e.2 byproduct material. By letter dated September 30, 2002, SFC submitted a license amendment application to possess byproduct material. By memo from DWM to FCSS, dated November 12, 2002, project management responsibility for the site was transferred to the Uranium Processing Section. This site will be removed from the SDMP within the next year.

There are no immediate radiological hazards at the site.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

By SRM SECY-02-0095, the Commission approved classifying the front-end waste at the SFC site as byproduct material and disposing of it in accordance with Appendix A to 10 CFR 40. In order to do so, SFC must revise the license to possess byproduct material and submit a reclamation plan to comply with the thirteen criteria of Appendix A. Criterion 5, related to ground water protection may be problematic.

There is a significant volume of waste at the site that cannot be classified as byproduct material. Final disposition of this waste must be resolved before approval to decommission is granted.

The licensee estimate to decommission the site is about \$87 million, of which approximately \$22 million is direct remediation cost, and \$2 million to a fund for long-term site control and monitoring, based on the calculations used for Title II sites; the balance is SFC overhead costs (salaries, taxes, utilities, etc.). Total financial assurance is currently \$6.15 million.

As discussed in Section 2 above, SFC is collecting additional data on ground water movement and contaminant transport. Preliminary results show high concentrations of uranium along outfall 005, that flows from the NW corner of the process area to the Illinois River. SFC proposes "monitored natural attenuation" as the remediation alternative for groundwater. This is an EPA approach for remediation of chemical contamination that requires, among other things, that the plume be accurately monitored and that mass reduction be demonstrated by means

other than dilution. SFC has not demonstrated the requisite monitoring and mass reduction. This issue must be addressed in a reclamation plan.

There is a high level of interest by local environmental groups and local citizens, many of whom are opposed to on-site disposal and license termination.

#### 4.0 ASSUMPTIONS

None

5.0 ESTIMATED DATE FOR CLOSURE     TBD

## **SHIELDALLOY METALLURGICAL CORPORATION (SHIELDALLOY)**

### **1.0 SITE IDENTIFICATION**

Location: Newfield, NJ  
License No.: SMB-1507  
Docket No.: 04007102  
Licensee Status: Active, 9/02 Request for Possession-Only  
Project Manager: Ken Kalman

### **2.0 SITE STATUS SUMMARY**

Contamination at the Shieldalloy Metallurgical Corporation (SMC) site is in the form of facility generated slag, and baghouse dust. The major contaminants are natural uranium and natural thorium. The site is also on the National Priorities List under CERCLA, because of past operations involving chromium-contaminated on-site groundwater. Remediation of the groundwater is currently taking place.

In August 2001, SMC notified the NRC that they had ceased production activities using source material. On August 27, 2001, the licensee provided notification and intent to decommission. The license is in timely renewal, and was amended on November 4, 2002, to authorize only decommissioning activities that were previously permitted. The licensee submitted a revised license renewal application on May 1, 2003.

SMC submitted its DP on August 30, 2002. The DP was rejected and on May 16, 2003, SMC provided a schedule to develop a revised DP by November 2003. SMC is proposing restricted release of the facility.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

In the past, SMC has found it difficult to sell the slag material. Several attempts to export the material have failed. SMC intended to sell the baghouse dust to a local cement manufacturer, however, no buyer has been found. Regardless of whether the sales occur, SMC has proposed to dispose of these materials on-site in an engineered cell.

SMC has less than adequate financial assurance for decommissioning. To date, public interest in the decommissioning activities of this site is minimal.

### **4.0 ASSUMPTIONS**

- The site would be released under restricted-use conditions, because SMC is proposing on-site stabilization. This assumes that the licensee's institutional controls would be approved by the NRC.
- If the slag and baghouse dust are removed from the site, there would only be low levels of residual radioactivity in some buildings and soils. Unrestricted release of the site would then be an option.
- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE 2010**

## **UNION CARBIDE CORPORATION**

### **1.0 SITE IDENTIFICATION**

Location: Lawrenceburg, TN  
License Nos.: SNM-724, SMB-720  
Docket Nos.: 070-00784, 040-07044  
License Status: Previously Terminated  
Project Manager: Ken Kalman

### **2.0 SITE STATUS SUMMARY**

The contaminant at the Union Carbide site is enriched uranium. Uranium contamination is present in buildings and soil. Ground water contamination is not an issue at this site.

The UCAR Carbon Company, Inc. (UCAR) DP was approved in two phases: Phase1, decommissioning activities associated with buildings was approved on July 27, 2000; Phase 2, decommissioning activities associated with soil was approved on December 1, 2000. UCAR is using the cleanup criteria found in the 1993 "Guideline for Decommissioning of Facilities" for buildings and structures. UCAR is "grand fathered," and thus able to use these criteria for buildings. This decommissioning approach will allow release of the site for unrestricted use.

There are no immediate radiological hazards at the site.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

No financial assurance issues have been identified to date. Public interest about decommissioning activities at the site is minimal. The staff has not identified any major off-site environmental issues that will not be addressed during decommissioning of the facility.

### **4.0 ASSUMPTIONS**

- UCAR will not become a licensee.
- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE 12/05**

## **WATERTOWN GSA**

### **1.0 SITE IDENTIFICATION**

Location: Watertown, MA  
License No.: none  
Docket No.: none  
Project Manager: Craig Gordon, R I

### **2.0 SITE STATUS SUMMARY**

General Services Administration (GSA) owns the property, and is responsible for performing the required site remediation of contaminated soils and groundwater in areas previously used by the Army for burning licensable quantities of uranium scrap and storage of radioactive waste. The site is currently unlicensed.

USACE, under agreement with General Services Administration, assumed management of site decommissioning activities in 1992. Site remediations were performed in 1981, 1988, and 1996 in which large amounts of contaminated soil were disposed. The final characterization survey submitted in 1996 was supplemented by a 2000 Historical Site Assessment. A DCGL report was submitted to NRC in February 2001, and approved in May 2001. A survey report submitted in April 2003, indicates that data from previous surveys was sufficient to represent the final survey, and no further remediation is necessary to meet the unrestricted release criteria of 10 CFR 20.1402. In May 2003, NRC performed confirmatory measurements of soil and groundwater which showed residual contamination levels significantly below the DCGL. The staff is reviewing the site status to determine whether to release the property for unrestricted use.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

NRC has not required licensing of the site based on the USACE's commitments to complete the final surveys and required remediations to meet unrestricted release criteria. There are no immediate public health and safety risks from the radiological exposure or hazards associated with intrusion of groundwater contamination.

Some local public interest has been shown due to the location of the site being adjacent to a residential community. No financial assurance issues have been identified at this time.

### **4.0 ASSUMPTIONS**

Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE 9/03**

## **WESTINGHOUSE ELECTRIC COMPANY, WALTZ MILL**

### **1.0 SITE IDENTIFICATION**

Location: Madison, PA  
License No.: SNM-770  
Docket No.: 070-00698  
License Status: Active  
Project Manager: Mark Roberts, R I

### **2.0 SITE STATUS SUMMARY**

The Waltz Mill site is currently licensed primarily to provide testing, calibration, and maintenance services for contaminated reactor servicing equipment and other reactor components. Radiological contamination in soil and groundwater exist on a portion of the site as a result of the clean-up activities following a 1961 incident at the test reactor, waste segregation activities, and nuclear laundry services. Significant contamination is also present in retired facilities (hot cells, hot cell support rooms, and a section of the fuel transfer canal) within one of the site buildings. Contaminants are primarily strontium-90 and cesium-137, with lesser quantities of mixed fission, activation products, and trace levels of transuranic radionuclides.

Westinghouse submitted a DP in April 1997 with the goal to achieve release of the site for unrestricted use. NRC approved the DP in January 2000. The licensee has remediated much of the interior and exterior contaminated areas. Remediation activities focused on the three hot cells and supporting facilities in conjunction with work on decommissioning the test reactor. Contaminated soil removal has been completed in the primary remediation area.

### **3.0 MAJOR TECHNICAL OR REGULATORY ISSUES**

The Viacom TR-2 license was intended to be terminated following decommissioning of the test reactor and the building transferred to the Westinghouse SNM-770 license. Westinghouse and Viacom have not reached an agreement on the transfer. This issue and related issues are currently before a Viacom/Westinghouse arbitration panel.

The SNM-770 facility remains on the SDMP list. The licensee does not intend to request termination of the license, but has gone forward with the remediation project, in part, to address the reasons why the facility was placed on the SDMP list originally. Criteria for removal from the SDMP list needs to be determined.

The Commonwealth of Pennsylvania, Department of Environmental Protection, has great interest in the condition of the site, particularly groundwater issues. No financial assurance issues have been identified at this time.

### **4.0 ASSUMPTIONS**

- Standard assumptions.

### **5.0 ESTIMATED DATE FOR CLOSURE 5/04**



## WHITTAKER CORPORATION

### 1.0 SITE IDENTIFICATION

Location: Greenville, PA  
License No.: SMA-1018  
Docket No.: 040-7455  
License Status: Active  
Project Manager: Randolph C. Ragland, Jr., R I

### 2.0 SITE STATUS SUMMARY

Whittaker's license authorizes possession of licensed material for storage only. Thorium is the most abundant contaminant on-site, however, uranium and radium have also been found.

On February 12, 2003, NRC received a copy of Whittaker's DP without the Financial Assurance section. On April 18, 2003, the DP was rejected due to a lack of required financial assurance documents. A revised DP was submitted to NRC on August 7, 2003.

### 3.0 MAJOR TECHNICAL OR REGULATORY ISSUES

Previously, NRC staff estimated Whittaker site decommissioning costs to be \$19.7M for unrestricted release and \$2.5 M for restricted release. Whittaker's draft DP estimated decommissioning cost to be \$6.67 M for unrestricted release.

Whittaker is actively investigating beneficial reuse of non-source material slag.

Public interest in the decommissioning activities at this site is very low.

### 4.0 ASSUMPTIONS

- The licensee will continue with plans for unrestricted site release.
- Standard assumptions.

### 5.0 ESTIMATED DATE FOR CLOSURE 9/07