

February 1, 1999

FOR: The Commissioners

FROM: William D. Travers /s/  
Executive Director for Operations

SUBJECT: STATUS OF DECOMMISSIONING PROGRAM AND SITE DECOMMISSIONING MANAGEMENT PLAN SITES

## PURPOSE:

To update the Commission on the status of the Decommissioning Program and progress on the remediation of sites listed in the Site Decommissioning Management Plan (SDMP).

## BACKGROUND:

The staff committed to provide a report on the progress of decommissioning SDMP sites in [SECY-98-155](#), "Transition From Site Decommissioning Management Plan to Comprehensive Decommissioning Program," June 30, 1998. In addition, the August 27, 1998, Staff Requirements Memorandum (SRM, [Attachment 1](#)) regarding SECY-98-155 directed the staff to take several actions, including: 1) provide a brief discussion in the SDMP status report on whether the Decommissioning Management Board and the Agency Operating Plan have proven to be effective and efficient tools for managing emerging decommissioning policy issues; 2) ensure that the decommissioning standard review plan (SRP) includes an assessment and evaluation of the complex modeling associated with the groundwater pathway; 3) consult with the Commission in cases where a site using the SDMP Action Plan criteria is proposed to be released for unrestricted use and the site does not comply with the criteria in the license termination rule; and 4) communicate with licensees on the status of all SDMP-related guidance. This paper provides the requested SDMP site status report and discusses staff actions in response to the August 27, 1998, SRM. A summary of progress on developing the decommissioning SRP and initiatives to improve the decommissioning program is also provided.

## DISCUSSION:

- [1. SDMP Site Decommissioning Status](#)
- [2. Decommissioning Program Improvement Initiatives](#)
- [3. Decommissioning Standard Review Plan](#)
- [4. Agency Operating Plan and Decommissioning Management Board](#)

## 1. SDMP SITE DECOMMISSIONING STATUS

Three sites were removed from the SDMP list during fiscal year (FY) 1998: 1) Cabot Corporation, Boyertown, PA; 2) Clevite, Cleveland, OH; and 3) Schott Glass Technologies, Duryea, PA. No new sites were added in 1998. There are 36 sites remaining on the list ([Attachment 2](#)). Since the inception of the SDMP program in 1990, a total of 24 sites have been removed ([Attachment 3](#)).

The remaining 36 sites fall into one of two categories: 1) decommissioning under the Action Plan Criteria ("grandfathered," pursuant to [10 CFR 20.1401](#)); or 2) decommissioning under the license termination rule (LTR) criteria published in July 1997.

Twenty of the 36 SDMP sites are decommissioning under the Action Plan criteria ([Attachment 4](#)). The staff has approved 10 of the decommissioning plans, and review is still pending for 10. The staff plans to act on all 10 pending decommissioning plans that propose the Action Plan criteria by August 20, 1999, in accordance with the deadline specified in [10 CFR 20.1401](#). Meeting this schedule for the remaining 10 plans will require a considerable level of effort, and may result in the delay of other, lower priority, licensing actions.

As directed in the August 27, 1998, SRM, the staff will consult with the Commission in cases when an SDMP site is seeking release for unrestricted use under the SDMP Action Plan criteria, and the site does not comply with the dose standards in the license termination rule. In most cases, dose data will not be readily available because the Action Plan criteria do not require licensees to provide dose assessments. In such cases, the staff could either: 1) conduct a dose assessment, or 2) use the results of the generic dose assessments for the Action Plan criteria that were discussed in [SECY-98-155](#). The staff will apply the most appropriate and efficient approach on a case-by-case basis.

Sixteen of the 36 SDMP sites will terminate their licenses under the criteria in the LTR ([Attachment 5](#)). Four of the 16 sites are considering release for unrestricted use under the LTR. Two sites have proposed restricted use, and most of the remaining sites will probably propose restricted use.

Restricted use cases are the most technically complex and generally require the largest expenditure of staff resources. There is usually extensive public involvement with the restricted use cases. Site-specific dose assessments, including complex groundwater modeling, will be required. Some sites may require "durable institutional controls," which, as specified in [10 CFR 20.1403 \(e\)](#), will be implemented on a case-by-case basis and will likely involve the States or other Federal agencies. In addition, the staff will need to develop environmental assessments or environmental impact statements to support license termination for restricted use cases.

Three SDMP sites (Kaiser Aluminum Products, Fansteel, and Molycorp (Washington)) have proposed to use the Action Plan criteria for a portion of their site, and the LTR restricted release provision for the other portion. The staff will coordinate with the Office of the General Counsel (OGC) in determining

whether mixing both criteria at a single site is appropriate.

The projected schedule for the removal of the remaining 36 sites is contained in [Attachment 6](#). The budget and Agency Operating Plan project removal of three SDMP sites per year. This goal will be exceeded in 1999. The staff plans to terminate four SDMP licenses in 1999, including two in Ohio. In addition, seven sites will be transferred to Ohio in 1999, when it becomes an Agreement State. It is difficult to project the date of completion for the 16 sites using the LTR because of the complexities associated with proposals involving restricted use. However, a reasonable prediction is about 5 years, which leads to a projection that the most complex sites would be removed by FY 2004. The staff expects steady progress over the next 3 years toward the removal of the sites under the Action Plan criteria. Note that this projection does not include the potential removal of sites through transfer to new Agreement States other than Ohio. There are 16 sites in Pennsylvania and Oklahoma ([Attachment 6](#)), but it has not yet been determined whether their planned agreements would include the transfer of complex SDMP sites. During development of the FY 2001 budget, the staff will update the budget and Operating Plan to reflect the projections in [Attachment 6](#).

## 2. Decommissioning Program Improvement Initiatives

In 1997, the staff estimated the contractor costs, staff hours, and Full Time Equivalents (FTE) expended in removing sites from the SDMP, as well as terminating the licenses for the Fort St. Vrain and Shoreham nuclear power facilities ([Attachment 7](#)). The average staff expenditures have been about 0.9 FTE per SDMP site removed. The range has been 0.04 FTE (Old Vic) to 4.32 FTE (B&W, Apollo). Most sites have required less than 0.5 FTE. However, it is important to recognize that most of the sites that have been removed from the SDMP were not unusually complex. While these resource expenditures are considered reasonable, the staff believes that future SDMP site removals can be conducted more efficiently.

The decommissioning program will seek efficiency improvements through two means: 1) participation in the overall agency effort to streamline licensing procedures; and 2) continued implementation of the Integrated Licensing and Inspection Program (ILIP). The streamlined licensing process applicable to materials cases, including decommissioning, was initially developed and implemented in the Spent Fuel Project Office. The process is intended to facilitate staff reviews and licensing decisions in accordance with defined and agreed upon schedules, and is expected to decrease review times and save resources. The ILIP was developed for SDMP sites in 1997. The program assures that resources for decommissioning activities are prioritized according to risk, and that licensing and inspection activities are properly coordinated. The staff believes that, in the future, the staff resources required for the decommissioning of SDMP sites and power reactors can be significantly reduced through the streamlined licensing process, ILIP, and use of the standard review plan.

In addition to the above initiatives, the staff is continuing work on the pilot program for decommissioning of five non-SDMP sites as discussed in [SECY 98-135](#), dated June 11, 1998. A detailed report on the pilot program will be provided to the Commission in June 1999. The results of this program should help identify potential improvements to save decommissioning resources.

## 3. DECOMMISSIONING STANDARD REVIEW PLAN

The development of the SRP for compliance with the LTR is proceeding as discussed in the memorandum to the Commission dated September 29, 1998. The SRP effort is closely linked to the effort to finalize the interim guidance on the LTR, DG-4006, "Demonstrating Compliance with the Radiological Criteria for Decommissioning." The first draft of the SRP is scheduled to be completed in June 1999, with the exception of the dose modeling section, which is scheduled for March 2000. The staff is conducting the following activities in connection with development of the final guidance and SRP: 1) conducting public workshops and technical meetings; 2) publishing a screening table for beta/gamma emitters on building surfaces (63 FR 64132, November 18, 1998); 3) publishing a notice informing licensees of the status of SDMP-related guidance documents (also in 63 FR 64132); 4) briefing the Advisory Committee on Nuclear Waste on the SRP; 5) scheduling a workshop to discuss complex groundwater issues (per [SECY-98-155](#)); and 6) obtaining technical assistance from a contractor to evaluate a complex test case using the interim LTR guidance. [Attachment 8](#) provides more detail on the status of the SRP development.

The Commission expressed concern, in the July 8, 1998, [SRM](#) in response to [SECY-98-051](#), "Guidance in Support of Final Rule on Radiological Criteria for License Termination," that there may be excessive conservatism in the dose models, particularly the DandD screening code. The staff has been actively evaluating conservatism as a part of the SRP development. To date, particular attention has been focused on the indoor resuspension parameter in the DandD code, which is the primary reason for the very low screening values for alpha emitters on building surfaces. Through a combination of industry input and additional staff work, there appears to be justification for lowering the indoor resuspension factor. This adjustment may significantly reduce the conservatism in the screening values for alpha emitters. Other efforts that will help contribute to our understanding of assumptions and conceptual models which underlie the conservatism in dose assessment models include the staff's comparison of the Department of Energy RESRAD code to the DandD code, and ongoing interactions with the Electric Power Research Institute (EPRI), the Nuclear Energy Institute, and the Fuel Cycle Facilities Forum in the area of dose modeling for power reactors and materials facilities.

## 4. AGENCY OPERATING PLAN AND DECOMMISSIONING MANAGEMENT BOARD

The Agency Operating Plan is being used to track and manage major decommissioning issues in the Office of Nuclear Material Safety and Safeguards, the Office of Nuclear Regulatory Research, and the Office of Nuclear Reactor Regulation. The major items currently managed through the FY 1998-2000 plan are: 1) SDMP casework and site removal; 2) decommissioning guidance and SRP development; 3) review of formerly licensed sites; 4) interactions with the Environmental Protection Agency and Interagency Steering Committee on Radiation Standards; and 5) integrated licensing and inspection programs. Managing the policy issues related to the SDMP sites in the Agency Operating Plan has resulted in better integration with the decommissioning activities and guidance development related to non-SDMP materials sites, power reactors, and non-power reactors.

The Decommissioning Management Board (Board) has been an effective mechanism for inter-office and regional coordination of guidance development and issue resolution. The Board holds weekly meetings to provide timely management input on decommissioning tasks and issues. However, there is a general consensus that the Board needs to improve its efficiency. For example, several participants have commented that the Board has devoted too much time to discussion of certain topics, and that the Board duplicates efforts by addressing topics that are being resolved through other management

reviews. In December 1998, the Board requested an outside consultant to review the Board's activities to date and to provide recommendations for improvements. The Board will consider the recommendations, and implement improvements as appropriate.

**RESOURCES:**

The Decommissioning Program staff budget for FY 1999, 2000, and 2001, is 36 FTE, 35 FTE, and 37 FTE, respectively. The technical assistance resources budgeted are \$2.6m, \$3.4m, and \$3.0 million, respectively. These resources include licensing casework directly related to the SDMP sites, plus the broader decommissioning program areas such as rule and guidance development, decommissioning of other complex sites, and interagency coordination.

**COORDINATION:**

The Office of the General Counsel has reviewed this paper and has no legal objection. The Office of the Chief Financial Officer has reviewed this paper for resource implications and has no objections.

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- Attachments:**
1. SRM dated 8/27/98
  2. Current SDMP Sites
  3. Former SDMP Sites
  4. SDMP Sites using Action Plan Criteria
  5. SDMP Sites using License Termination Rule Dose Criteria
  6. SDMP Site Summary
  7. Resources Expended for Removal of SDMP Sites
  8. Status of Standard Review Plan

ATTACHMENT 2

**CURRENT SITE DECOMMISSIONING MANAGEMENT PLAN (SDMP) SITES (1/99)**

SDMP SITE	LOCATION
AAR Manufacturing	Livonia, MI
Advanced Medical Systems, Inc.	Cleveland, OH
Army, Jefferson Proving Ground	Jefferson, IN
Babcock & Wilcox - Operating Facility	Parks Township, PA
Babcock & Wilcox, Shallow Land Disposal Area	Parks Township, PA
BP-Chemicals America, Inc.	Lima, OH
Cabot Corporation	Reading, PA
Cabot Corporation	Revere, PA
Chemetron Corporation-Bert Avenue	Cleveland, OH
Chemetron Corporation-Harvard Avenue	Cleveland, OH
Dow Chemical Company	Bay City and Midland, MI
Elkem Metals, Inc.	Marietta, OH
Fansteel, Inc.	Muskogee, OK
Hartley and Hartley (Kawkawlin) Landfill	Bay County, MI
Heritage Minerals	Lakehurst, NJ

Horizons, Inc.	Cleveland, OH
Kaiser Aluminum	Tulsa, OK
Kerr-McGee	Cimarron, OK
Kerr-McGee	Cushing, OK
Lake City Army Ammunition Plant	Independence, MO
Michigan Department of Natural Resources	Bay County, MI
Minnesota Mining and Manufacturing Co. (3M)	Pine County, MN
Molycorp, Inc.	Washington, PA
Molycorp, Inc.	York, PA
Northeast Ohio Regional Sewer District/Southerly Plant	Cleveland, OH
Permagrain Products	Media, PA
Pesses Company/METCOA	Pulaski, PA
RMI Titanium Company	Ashtabula, OH
Safety Light Corporation	Bloomsburg, PA
Sequoyah Fuels Corporation	Gore, OK
Shieldalloy Metallurgical Corporation	Cambridge, OH
Shieldalloy Metallurgical Corporation	Newfield, NJ
Watertown Mall-Army	Watertown, MA
Watertown GSA	Watertown, MA
Westinghouse Electric Corporation	Waltz Mill, PA
Whittaker Corporation	Greenville, PA

ATTACHMENT 3

**SDMP SITES REMOVED PRIOR TO OCTOBER 1997**

<b>SDMP SITE</b>	<b>LOCATION</b>	<b>DATE</b>
Alcoa	Cleveland, OH	April 9, 1996
Allied Signal Aerospace-Bendix Division	Teterboro, NJ	February 28, 1992
Amax, Inc.	Wood County, WV	June 7, 1994
Anne Arundel County/Curtis Bay	Anne Arundel County, MD	July 31, 1997
Army Aberdeen Proving Ground	Aberdeen, MD	March 27, 1997
Babcock & Wilcox Apollo	Apollo, PA	January 17, 1997
Budd Company	Philadelphia, PA	April 21, 1993
Chevron Corporation	Pawling, NY	July 6, 1994
Engelhard Corporation	Plainville, MA	March 21, 1997
Fromme	Detroit, MI	July 26, 1996
Kerr-McGee	West Chicago, IL	November 1, 1990

Magnesium Elektron, Inc.	Flemington, NJ	November 17, 1995
Mallinckrodt	St. Louis, MO	December 1990
Nuclear Metals, Inc.	Concord, MA	March 21, 1997
Old Vic	Cleveland, OH	December 6, 1993
Pratt & Whitney	Middletown, CT	October 4, 1995
RTI, Inc.	Rockaway, NJ	January 24, 1997
Texas Instruments, Inc.	Attleboro, MA	March 13, 1997
UNC Recovery Systems	Wood River Junc., RI	October 12, 1995
West Lake Landfill	Bridgeton, MO	June 16, 1995
Wyman Gordon	Grafton, MA	March 21, 1997

**SDMP SITES REMOVED IN FISCAL YEAR 1998**

SDMP SITES	LOCATION	DATE
Cabot Corporation	Boyerton, PA	9/14/98
Clevite	Cleveland, OH	9/21/98
Schott Glass Technologies	Duryea, PA	9/14/98

ATTACHMENT 4

**SDMP SITES USING ACTION PLAN CRITERIA**

**SDMP Sites With Approved Decommissioning Plans,  
Grandfathered Pursuant to 10 CFR 20.1401(b)**

Site	Projected Removal From SDMP
AAR Manufacturing	2000
Babcock and Wilcox - Parks Township	2002
Chemetron Corp. (Bert Ave.)	3/99
Chemetron Corp. (Harvard Ave.)	3/99
Dow Chemical Company	2000
Elkem Metals	6/99
Horizons/Lamotite	6/99
Permagrain Products, Inc.	12/99
Pesses/Metcoa	6/99
RMI Titanium Co.	6/99

**SDMP Sites With Decommissioning Plans Under NRC Review  
Eligible For Grandfathering Pursuant to  
10 CFR 20.1401 (b)**

Site	Projected Decision	Projected Removal
BP Chemicals	3/99	6/99
Heritage Minerals, Inc.	6/99	2002
Kerr-McGee Cimarron	6/99	2002
Kerr-McGee Cushing	6/99	2002
Lake City Army Ammunition Plant (LCAAP)	6/99	2004
Molycorp (York)	7/99	2002
NEORS	4/99	6/99
Watertown GSA	7/99	2000
Watertown Arsenal Mall	7/99	9/99
Westinghouse Waltz Mill	3/99	2001

ATTACHMENT 5

**SDMP SITES USING LICENSE TERMINATION DOSE CRITERIA<sup>(1)</sup>**

Sites With Decommissioning Plans Under NRC Review	
Site	Projected Decision
Cabot (Reading)	2001
Cabot (Revere)	2001
Fansteel (partial)	2001
Safety Light Corp.	2001
Sequoyah Fuels Corp	2001
3M Kerrick	9/99

Sites Which Have Not Submitted Decommissioning Plans	
Site	Projected Submittal
Advance Medical Systems, Inc	Unscheduled, hearing pending
Babcock and Wilcox - Shallow Land Disposal Area	Unscheduled
Hartley and Hartley Landfill - SCA	2000
Kaiser Aluminum Specialty (partial)	1/00
Jefferson Proving Ground	5/99
MDNR Hartley and Hartley Landfill	6/01
Molycorp (Washington) (partial)	2000
Shieldalloy Metallurgical Corp. (Cambridge)	3/99
Shieldalloy Metallurgical Corp (Newfield)	2000
Whittaker	9/99

## SDMP SITE SUMMARY

Projected Removal From SDMP	
Year	Projected Number
FY99	11
FY00	5
FY01	1
FY02	5
FY04	14

SDMP Sites By State	
States	Number
Ohio	9
Oklahoma	5
Pennsylvania	11
Other States	11

## STATUS OF DECOMMISSIONING STANDARD REVIEW PLAN

- 1. Public Workshops
- 2. Modification of the Resuspension Parameter in the DandD Screening Code
- 3. Publication of Screening Table for Building Surface Contamination
- 4. Test Cases to Evaluate the Draft Decommissioning Guidance and Develop SRP
- 5. Advisory Committee on Nuclear Waste Briefings on the SRP
- 6. Public Workshop on Complex Groundwater Modeling
- 7. Contract with Argonne National Laboratory to Evaluate RESRAD Dose Assessment Code
- 8. Comparison of RESRAD and DandD Codes
- 9. Contract with Sandia National Laboratory to Evaluate Complex Test Case

The development of the standard review plan (SRP) is proceeding as described in the September 29, 1998, memorandum to the Commission. The development of acceptance criteria for the License Termination Rule (LTR) is closely linked to the effort to finalize the draft guidance for the LTR, including Draft Regulatory Guide DG-4006, "Demonstrating Compliance with the Radiological Criteria for Decommissioning," and Draft NUREG-1549, "Decision Methods for Dose Assessment to Comply With Radiological Criteria for License Termination." The staff responsible for the finalization of the draft guidance are actively involved in the development of the SRP. This will ensure consistency between the SRP and the final guidance.

The first draft of the SRP, with the exception of the dose modeling section, is scheduled to be completed in June 1999. Because of the complex issues associated with the dose modeling guidance, the first draft of this section will be issued in April 2000. The drafts will also be posted on the NRC web site for public comment as they are completed. A more detailed discussion of staff efforts related to the SRP is provided below.

## 1. PUBLIC WORKSHOPS

The staff has solicited participation of industry and other interested parties in a series of workshops and technical meetings to discuss the draft guidance and the SRP. A Federal Register Notice (FRN) (63 FR 56237) announcing the planned series of 6 workshops was published on October 21, 1998. The announcement was also directly mailed to more than 350 persons representing the industry, States, Environmental Protection Agency (EPA **EXIT** NEI ), Department of Energy (DOE **EXIT**), National Laboratories, Nuclear Energy Institute (NEI ), environmental groups, Fuel Cycle Facilities Forum (FCFF), and Electric Power Research Institute (EPRI).

The first workshop was held on December 1-2, 1998, and covered dose modeling issues primarily affecting fuel cycle facilities. Presentations by industry representatives comprised about half of the workshop agenda. These presentations provided the staff with useful comments, suggestions, and data that are being evaluated.

## 2. MODIFICATION OF THE RESUSPENSION PARAMETER IN THE DANDD SCREENING CODE

During the technical meeting with the FCFF, staff discussed the DandD screening code and the fact that the screening values for alpha emitters on building surfaces were very low. The staff indicated that the resuspension factor was the primary parameter in the DandD code that was causing the low screening values, and that more information was needed from actual facilities to get better estimates of this parameter. The FCFF agreed to investigate this issue and determine if data existed at any of the fuel cycle facilities that could be used to estimate a resuspension factor for building surfaces. A room in one of the facilities was identified where the activities were similar to that assumed in the DandD model for building occupancy. The licensee compiled operational air sample and contamination survey results to estimate the resuspension factor in this room. The data was presented in the December 1-2, 1998, workshop. The data indicated that the existing DandD default resuspension factor appeared to be conservative. The staff is evaluating the data, along with additional information from a previously unidentified reference, to calculate a new resuspension factor. The new resuspension factor should result in screening values for alpha emitters that are from 10-100 times higher; i.e., 10-100 times less conservative.

## 3. PUBLICATION OF SCREENING TABLE FOR BUILDING SURFACE CONTAMINATION

In an FRN published November 18, 1998, (63 FR 64132), the staff issued a screening table for building surface contamination that can be used to demonstrate compliance with the 25 mrem/yr criteria in the LTR. The table contains values for beta/gamma emitters only. The screening values for alpha emitters were too low to be of practical use. However, as indicated in the discussion above regarding the resuspension factor, measures are being taken to reduce the conservatism in the alpha screening values and these efforts will continue. The Commission was notified of the staff's intent to issue the screening table in [SECY-98-242](#), "Screening Table for Building-Surface Contamination, as Guidance in Support of the Final Rule on Radiological Criteria for Decommissioning," October 21, 1998. The FRN also provided new information related to the LTR that had not been previously announced including: 1) the availability of the DandD screening code, and 2) the status of SDMP-related guidance. The publication of the status of SDMP-related documents was in response to the Commission's direction in SRM SECY-98-155, "Transition From Site Decommissioning Management Plan to Comprehensive Decommissioning Plan." A copy of the FRN was mailed to all NRC licensees, in addition to being published in the Federal Register.

## 4. TEST CASES TO EVALUATE THE DRAFT DECOMMISSIONING GUIDANCE AND DEVELOP SRP

The staff is emphasizing the use of test cases to evaluate the draft guidance for dose modeling, and other guidance modules, as a mechanism for exchanging information with stakeholders and identifying implementation issues. NRC is currently evaluating 3 test-cases: 2 former onsite disposals, and a major former fuel conversion facility. All three test cases are being evaluated as a part of an NRC licensing review. The members of the FCFF identified two test cases to use for the evaluation of the LTR guidance. These test cases involve decommissioning of uranium contamination in burials and soil, and were discussed during the December 1-2, 1998, workshop by the licensee representatives responsible for decommissioning the sites. The licensees presented comments and lessons learned through implementing the draft guidance for dose modeling. Finally, the NEI has organized a decommissioning workgroup comprised of representatives from the commercial power reactors that are either in decommissioning or considering permanent shutdown. This NEI workgroup will identify one or more power reactor test cases in the near future.

## 5. ADVISORY COMMITTEE ON NUCLEAR WASTE BRIEFINGS ON THE SRP

The Advisory Committee on Nuclear Waste (ACNW) has been briefed 3 times on the status of the decommissioning program and the guidance for the LTR. The first meeting was on March 23, 1998, and addressed the draft LTR guidance that was under Commission consideration at the time. The ACNW provided a letter to the Commission regarding the draft guidance. The second briefing was held on August 27, 1998, and focused on the development of the decommissioning SRP. The most recent meeting was on December 15, 1998. The agenda for this meeting included a general briefing on the decommissioning programs in the Office of Nuclear Regulatory Research, Office of Nuclear Reactor Regulation, and Office of Nuclear Material Safety and Safeguards.

## 6. PUBLIC WORKSHOP ON COMPLEX GROUNDWATER MODELING

Consistent with the Commission's direction in the August 27, 1998, SRM, the staff is conducting a two-day public workshop on complex groundwater modeling issues. The workshop will be held June 16-17, 1999, and will include presentations by experts from National Laboratories, the U.S. Geological Survey, the EPA, EPRI, the Agreement States, and NRC staff.

## 7. CONTRACT WITH ARGONNE NATIONAL LABORATORY TO EVALUATE RESRAD DOSE ASSESSMENT CODE

A research contract has been developed for Argonne National Laboratory to evaluate the parameters in the DOE RESRAD pathway analysis/dose assessment code. The parameters will be evaluated using a probabilistic approach similar to that performed for the DandD code. The RESRAD code has been used by NRC in the past and is used extensively by other Federal agencies and States. After the uncertainty of the default parameters are evaluated, RESRAD should provide another useful modeling tool for licensees to use in determining compliance with the LTR.

## 8. COMPARISON OF RESRAD AND DANDD CODES

An NRC contractor, Sandia National Laboratory, evaluated and compared the RESRAD code to the DandD code. The purpose of the comparison was to determine the applicability of each code and conditions where the codes can be used. The evaluation contributed to our understanding of the assumptions and conceptual models which form the basis of the two codes. This report was posted on the NRC's web site for the decommissioning guidance for public comment and was discussed in the December 1-2, 1998, workshop and the December 15, 1998, ACNW briefing. The information will be used by the staff during the development of the SRP to provide guidance regarding the selection of codes for site-specific analysis. One significant finding in the report was that a specific parameter in the DandD code, the plant mass loading factor, appears to be high by a factor of 10. The staff is evaluating why this factor is high, and may modify the parameter in the code, thereby reducing unnecessary conservatism in the DandD screening values.

## 9. CONTRACT WITH SANDIA NATIONAL LABORATORY TO EVALUATE COMPLEX TEST CASE

A technical assistance contract is in place with Sandia to evaluate a complex site using the draft LTR guidance that was approved for interim use by the

Commission in SRM-SECY-98-052, "Guidance in Support of Final Rule on Radiological Criteria for License Termination," July 8, 1998. In this SRM, the Commission directed the staff to use a complex site to test the DandD code and serve as a pilot for developing and testing the SRP. This contract will ensure a thorough evaluation per the Commission's direction.

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1. Kaiser Aluminum Products, Fansteel Inc., and Molycorp (Washington) have submitted partial decommissioning plans using Action Plan criteria.