See the set of the	SAFEIY AND CO	MPLIANCE INSPEC	TION			
1. LICENSEE		2. REGIONAL OFFICE				
Battelle Men	rorial Inscitute				· •	
Wast Toffer	son atra	US NUCLEAR R	EGULATORY COMMISSI	DN		
		801 WARRENVIL	LE ROAD			
REPORT NUMBER(S)			100	and a second		
3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)		5. DATE(S) OF INSPECTION			
070-0008	3 SNM-7		211-3/03			
The inspection was an examin	nation of the activities conducted under your ti	iconso as they relate to rediction				
Regulatory Commission (NRC) rules and regulations and the conditions of	your license. The inspection co	nsisted of selective examination	ith the Nuclear ations of procedures		
1 Based on the incr	terviews with personnel, and observations by	the inspector. The inspection fi	ndings are as follows:			
V . Dased on the list	section findings, no violations were identified.			and the second second		
2. The violation(s), s	pecifically described to you by the inspector	as non-cited violations, are not b	eing cited because they we	re self_identified		
discretion, were s	d corrective action was or is being taken, and atisfied.	the remaining criteria in the NR	C Enforcement Policy, NUF	EG-1600, to exercise		
		were discussed involving the foli	owing requirement(s):			
3. During this inspec	tion certain of your activities as described by	elow and/or attached ware in the	1-41 (110-6			
This form is a NO	TICE OF VIOLATION, which is required to t	pe posted in accordance with 10	CFR 19.11	and are being cited.		
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harohy state that with as	STATEMENT OF CO	DRRECTIVE ACTIONS				
actions is made in accordance w	s, the actions described by me to the inspect ith the requirements of 10 GFR 2 201 (correct	or will be taken to correct the vio	lations identified. This state	ement of corrective		
compliance will be achieved). I u	inderstand that no further written response to	NRC will be required, unless sp	uve steps which will be take becifically requested.	n, date when full		
TITLE	PRINTED NAME	SIG	NATURE	DATE		
LICENSEE						
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APPENDIX A

MATERIALS DECOMMISSIONING INSPECTION FIELD NOTES FOR FACILITIES NEEDING SIGNIFICANT DECOMMISSIONING EFFORT

Region III

Inspection Report No.	0700008/2003-001(DNMS)
License No.	SNM-7
Docket No.	070-00008
Licensee (Name & Address)	Battelle Memorial Institute Battelle Columbus Laboratories Decommissioning Project
Licensee Contact	Craig E. Jensen, Radiation Safety Officer
Telephone No.	(614) 424-5170
Date of Last Inspection	October 29-31, 2002
Date of This Inspection	February 1-3, 2003
Date of Next Inspection	March 2003
Type of Inspection: (X) A	nnounced () Unannounced
(X) F	Routine () Special

Brief Description of Inspection Activities:

The NRC conducted an inspection that reviewed procedures and the implementation of procedures on a loading of two transportation casks. The inspectors also observed a State of Ohio representative and three Public Utility Commission of Ohio agents perform surveys and examinations of the casks, trucks and trailers.

() Initial Decomm. (X) Reinspection of Decomm.

Brief Description of Findings and Action:

The area above was inspected in accordance with the appropriate inspection procedures. No violations of NRC requirements were identified.

Summary of Findings and Action:

(X) No violations cited, clear NRC Form 591 or regional letter issued

() Violation(s), clear NRC Form 591 issued () Violation(s), regional letter issued

() Followup on previous violations

This inspection did not review the violations identified during the 2002-003 inspection as the inspector's objective during this inspection was to review the cask loadings and shipment procedures.

Issue Date: 06/04/97

A-1

87104, Appendix A

Inspectors:	lenge my. myelo	63/3/0
	George McCann; SeniorRadiation Specialist	Date
	Mul Myty	2/20/03
	Michael LaF)anzo: Radiation Specialist	Date
Approved:	Chall	
	Chris Miller; Chief, Decommissioning Branch	
Date:	3-4-53	

[Field notes are to be used by the inspector to assist with the performance of the inspection. Note that all areas indicated in the field notes are not required to be addressed during <u>each</u> inspection. However, for those areas <u>not covered</u> during the inspection, a notation ("Not Reviewed") should be made in each section where applicable. Additionally, all areas covered during the inspection should be documented in sufficient detail to describe what activities and/or records the inspector observed. The fieldnotes to the "Decommissioning Inspection Procedure for Materials Licensees" should be supplemented with: (1) the applicable inspection procedures for operating facilities provided in the Inspection Procedure (IP) 87100 series; and (2) other written documentation of the inspection, as necessary.]

1. SUMMARY OF DECOMMISSIONING STATUS

The checklist below is intended to provide, in a written outline format, summary documentation of the status of the licensee's facility in the decommissioning process. This documentation will be filed as part of the inspection report. The inspector should use this information to develop each inspection plan(s) for the various stages of decommissioning, namely, before dismantlement, during dismantlement and site remediation, and after site remediation.

А. В.	Licensee ceased operational program. Required decommissioning financial assurance	(X) Y () N
C. D. E.F.G. H.	mechanisms in place. Decommissioning Plan (DP) required. Licensee final survey required. NRC confirmatory survey required. NRC closeout inspection required. Licensee doing decommissioning planning and preparation before dismantlement. Licensee actively remediating site.	(X) Y () N (X) Y () N
H. I.	Licensee actively remediating site. Licensee completed site remediation.	(X) Y () N (X) Y () N () Y (X) N

Issue Date: 06/04/97

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The following is a generic checklist of major licensee activities occurring at various stages of decommissioning. From this generic checklist and from facility-specific activities you identify, develop the set of licensee activities to be inspected - for each individual inspection throughout the decommissioning process. Plan to inspect licensee activities that present potential high-risk conditions. Then apply the standard health and safety inspection areas in Section 3 of these fieldnotes (taken from the applicable 87100 series IP for the licensee's operational program) to the specific licensee decommissioning activities that are being inspected.

To complete the licensee activities checklist, the inspector will need to obtain information from the Licensing Project Manager, review the DP, make observations at the licensee's facility, review licensee records, take measurements and samples of contaminants, and undertake other investigative measures, to determine whether the licensee is meeting all regulatory and DP commitments for each decommissioning activity the licensee is performing.

A. LICENSEE ACTIVITIES INSPECTED BEFORE DISMANTLEMENT

1.	Licensed material used during operations	
	has been removed from site. (In process)	(X) Y () N
2.	Facility license conditions are	
	in place and met by licensee.	(X) Y () N
З.	Site security and control of contaminated material	
	being maintained in compliance with	
	10 CFR 20.1801 and 20.1802.	(X) Y () N
4.	Support systems and services (e.g., lighting,	
	water supply) are in place.	(X) Y () N
5.	Decommissioning schedules are consistent with	
	timeliness requirements in 10 CFR 30.36, 40.42,	
~	and 70.38.	() Y (X) NR
6.	Licensee's recordkeeping is consistent with	
-	10 CFR 30.35, 40.36, and 70.25.	() Y (X) NR
1.	Financial assurance requirements are being	
	maintained in accordance with 10 CFR 30.35,	
0	40.36, and 70.25.	() Y (X) NR
ö.	Licensee is conducting site characterization	
	In accordance with applicable radiation	
0	protection procedures.	() Y (X) NR
9.	Construction of new site features (e.g., roads,	
	rail spurs, staging areas, sediment control ponds)	
	and sofety of workers and weblic	
10	Liconcoo optivition conform to ano sitis	(X) Y () N
10.	license conditions and licenses programs and	
	procedures	
	procource.	(X)Y()N

Basis of Findings:

The licensee posted the load transfer area and areas outside the building where the licensee anticipated elevated radiation levels. The inspector found that radiation protection measures were in place to ensure radiation doses were kept ALARA.

Issue Date: 06/04/97

87104, Appendix A

B. LICENSEE ACTIVITIES INSPECTED DURING DECONTAMINATION, DISMANTLEMENT, AND SITE REMEDIATION

1. Site security and control of contaminated material being maintained in compliance with 10 CFR Part 20. (X) Y () N

2. Decontamination and dismantlement of structures are being performed consistent with DP and sound industry practice (structures include buildings, utilities, treatment lagoons, etc.).

3. Decontamination and remediation of the following are being performed consistent with DP and sound industry practice:

а.	Soil.	() Y () N
b.	Sediment.	$\lambda \dot{\mathbf{y}} \lambda \dot{\mathbf{N}}$
C.	Surface waters.	$()$ \dot{Y} $()$ \dot{N}
d.	Groundwater.	$\chi \dot{\chi} \chi \dot{\chi}$
e.	Other mediums:	ĊΎ Ϋ́Ν

This area was not inspected during this inspection.

4. Licensee release and disposal of decommissioning wastes are consistent with DP and approved by NRC for:

- a. Liquid wastes (e.g., groundwater, surface water, liquid from treatment ponds, process liquids).
- b. Solid wastes (e.g., building materials, process and other facility equipment, concrete rubble, soil).
- c. Other wastes:

(X) Y () N () Y () N

()Y()N

The inspectors observed personnel loading the TRU waste into two CNS 10-160B (Type B) shipping casks. The Type B casks are expected to be shipped for disposal at the DOE waste site in Hanford, Washington. The Department of Energy (DOE) owns the Transuranic (TRU) waste, while Battelle is the contractor authorized to decommission the West Jefferson facility.

These cask loadings are the second and third in a series of loadings and shipments which the licensee plans to complete within the next 9-12 months. This transfer of TRU waste to the Hanford, Washington site will significantly decrease the quantity of radioactive material at the West Jefferson site.

The inspector's review and observations of the licensee's cask loading operations identified no procedural changes since the last cask loading. The inspectors noted some minor difficulties in loading the casks as a result of the licensee not using a crane rotator, which had been used in a loading prior to this shipment. The rotator is not required procedure. The inspectors did not identify any significant issues which might impact future shipments.

Licensee personnel indicated that elevated radiation levels outside JN1 would be present during the loading of the shipping casks. Because of this, physical barriers were installed and areas monitored where it was anticipated and/or identified that elevated radiation levels would exist. The licensee staff indicated that these areas will also need to be monitored and physical barriers installed during future cask loadings to ensure compliance with NRC

87104, Appendix A

A-4

Issue Date: 06/04/97

regulations. The Health Physics staff is performing dose assessments and dose predictions for future loadings to keep doses ALARA.

A DOE representative reviewed the licensee's documentation of TRU waste shipment contents including, but not limited to, the packaging and loading of the TRU waste. The NRC inspectors noted that the DOE representative did not find any substantial issues with the waste loading. In addition, the inspectors were briefed regarding the DOE representative's quality assurance review of the licensee's package documentation and TRU loading operations. The inspectors did not identify any abnormal issues.

The inspectors noted that licensee personnel used appropriate radiological survey instruments to analyze and address radiological conditions during the cask loading.

5. Temporary, on-site storage of low-level radioactive wastes from decommissioning meets license conditions and guidance in IP 84890.

()Y()N

This area was not inspected during this inspection.

6. Packaging and shipment of radioactive waste materials meet requirements in 40 CFR Parts 173-178 and 10 CFR Part 71.

See Section 4 above.

7. Restoration of site - Licensee has restored site to meet license conditions and NRC-approved plans.

This area was not inspected during this inspection.

8. Licensee survey of material and equipment for free release sufficient to demonstrate compliance with release criteria.

This area was not inspected during this inspection.

Basis for Findings:

The inspector observed decommissioning activities during the inspection. See section 3.J. for further evaluation on transportation of licensed material.

C. LICENSEE ACTIVITIES INSPECTED AFTER COMPLETION OF SITE REMEDIATION

Basis for Findings:

This section is not applicable.

3. INSPECTION OF STANDARD HEALTH AND SAFETY AREAS

Issue Date: 06/04/97

A-5

87104. Appendix A

(X) Y () N

()Y()N

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FROM THE OPERATIONAL INSPECTION PROGRAM

Identify the standard inspection areas (from the inspection program of the licensee's operational program) to be covered during each decommissioning inspection. [Inspection areas A through L below correspond to the typical inspection areas in the 87100 series IPs that are applicable to decommissioning.] Then identify the new activities within the standard inspection areas undertaken by the licensee during decommissioning. Some of the new activities given below, as well as any other activities the inspector identifies, should be considered inspection items under the general set of health and safety inspection areas used in the applicable 87100 series IP.

Minimum inspection areas for the initial decommissioning inspection:

decommissioning organization (A.1); decommissioning activities in compliance with NRC-approved DP (A.2); licensee procedures for implementing the DP (A.3); Radiation Safety Committee (RSC) and Radiation Safety Officer (RSO) responsibilities (A.4); and the licensee's decommissioning training program (E.1).

A. GENERAL OVERVIEW

1. Describe the licensee's decommissioning organizational structure:

The licensee's organization was as described in the Decommissioning Plan. The RSO performs general over-sight of the radiation protection program, and ensures compliance with license conditions.

(X) Y () N	
(X) Y () N	
(X) Y () N	
	(X) Y () N (X) Y () N (X) Y () N

Basis for Findings:

B. FACILITIES

1. Describe, from field observation, the licensee-identified facilities and outdoor areas to be decommissioned:

During the inspection, the inspector did not take a site tour to adequately address this area.

2. The licensee's remediation plan includes all the contaminated facilities and areas on-site and off-site.

() Y (X) NR

- All essential systems and services (e.g., electrical power, water supply, communications systems) are in place and functional for the planned decommissioning activities.
 (X) Y () N
- 4. Licensee's emergency plan is in place and operative for the duration of decommissioning.

()Y()N

87104. Appendix A

A-6

Issue Date: 06/04/97

This area was not reviewed during this inspection.

5. For complex sites needing site characterization, describe the key site characterization activities to be performed by the licensee to determine the nature and extent of contamination:

This area was not reviewed during this inspection.

6. Licensee's characterization activities performed in conformance with good industry practice.

(X) Y () N

C. EQUIPMENT AND INSTRUMENTATION

- 1. Survey instruments are applicable to contaminants of interest.
- (X) Y () N (X) Y () N 2. Use of survey instruments appropriate for site.

Basis for Findings:

The inspector noted that the licensee was using appropriate radiological survey instruments properly to analyze and address radiological conditions during the cask loading and surveys of the transportation container.

D. MATERIALS

- 1. Radioactive materials licensed during operations have been removed offsite; residual quantities conform to license conditions. Not reviewed during this inspection
- 2. Security and control of licensed materials, including contaminated areas, is being maintained. (X) Y () N

Basis for Findings:

The licensee was unable to ship TRU waste offsite during the inspection. The licensee appeared to have adequate security. In addition, managers have taken additional measures to ensure staff is made aware that any abnormal packages, letters, e-mails, etc. found by the staff are reported to security.

E. TRAINING

1. Licensee has developed training program for

- new decommissioning activities
- (e.g., demolition of structures, excavation of soil); program is adequate.

2. Training program being effectively implemented. (X)Y()N

Basis for Findings:

Issue Date: 06/04/97

A-7

The inspector performed interviews with staff and management involved with the loading and handling of the cask containing TRU. The inspector noted that all individuals interviewed had appropriate knowledge concerning their duties and were implementing the program appropriately.

F. AREA RADIATION SURVEYS AND CONTAMINATION CONTROL

 Area surveys are being performed in areas being decommissioned. (X) Y () N
Where active remediation (e.g., demolition of structures, excavation of soil) is being performed, radiation levels in unrestricted areas do not exceed

2 mrem in any one hour.

Basis for Findings:

The inspectors conducted radiation surveys, but did not identify any radiation levels above NRC requirements.

G. RADIATION PROTECTION

1. The licensee's approved health physics program		
is being implemented in the field for new		
decommissioning activities.	(X) Y () N	
2. Site security and control of contaminated material		
are in compliance with 10 CFR 20,1801 and 20,1802	(X) Y () N	

H. RADIOACTIVE WASTE MANAGEMENT/EFFLUENTS/ENVIRONMENTAL MONITORING

1. Offsite disposal of decommissioning wastes conforms to free release criteria and disposal site requirements.

(X) Y () N

(X) Y () N

The licensee prepared a shipment of TRU waste for disposal to a facility in Handford, Washington. However, the licensee could not ship the radioactive material during the inspection. The licensee planned to ship the radioactive material at a future date.

2. All new effluent releases conform to DP and applicable regulations.

()Y()N

This area was not reviewed during this inspection.

3. The licensee's environmental monitoring program is being implemented in conformance with the DP and all applicable limits are being met.

()Y()N

This area was not reviewed during this inspection.

87104, Appendix A

A-8

Issue Date: 06/04/97

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 Temporary storage/staging areas for radioactive wastes from building demolition, equipment dismantlement, soil excavation, etc., are adequately posted and protected.

(X) Y () N

Basis for Findings:

During the inspection the licensee acknowledged that elevated radiation levels outside JN1 would be present during the loading of this cask. The licensee installed physical barriers and monitored areas with personnel where the licensee anticipated and/or identified elevated radiation levels. These areas will also need to be monitored and physical barriers installed during future cask loadings. The Health Physics staff was performing dose assessments and dose predictions for future loadings to keep doses ALARA.

I. RECORDKEEPING FOR DECOMMISSIONING

 Copies of the licensee's decommissioning cost estimates and funding methods are on file. () Y () N
Licensee has adequate records for decommissioning activities performed (e.g., for decontamination and dismantlement of structures; decontamination and remediation of soil, sediment, surface waters, groundwater; surveys of remediated facilities). () Y () N
Licensee's financial assurance conforms with the financial assurance requirements of NRC-approved possession limits and NRC regulations. () Y () N

Basis for Findings:

This area was not reviewed during the inspection.

J. TRANSPORTATION

1. Describe the licensee's program to package and ship decommissioning waste materials:

See Below

2. Licensee's program meets all applicable 10 CFR and 49 CFR requirements for marking labeling, placarding, and shipping paper requirements for radioactive waste shipments.

(X)Y()N

Basis for Findings:

The licensee planned to ship two CNS 10-160B casks containing TRU waste from the West Jefferson site to Hanford, Washington. A single flatbed truck will transport each cask. The inspectors performed independent radiological surveys and reviewed the licensee's labels and transportation documentation for each Type B cask, truck cab and trailer. The inspectors noted that licensee personnel had appropriately performed radiological surveys of the casks, truck

Issue Date: 06/04/97

A-9

87104, Appendix A

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cabs and trailers and had posted and labeled the casks and trailers appropriately.

A representative from the Ohio Department of Health (ODH) was on site and reviewed the radiation levels, labels and other documentation. The ODH representative informed the inspectors that no deficiencies were identified during their review.

As part of Ohio's hazardous waste transportation program, three agents from the Public Utilities Commission of Ohio (PUCO) also performed radiological surveys of the casks, cabs and trailers and performed inspections of the cabs and trailers that included, but were not limited to, the brakes, hazard lights and structural integrity of the trailer. The inspectors observed the inspections and the PUCO agents informed the inspectors that no deficiencies were noted during the inspection.

The licensee temporarily delayed the shipment of the two casks to Hanford, Washington because of poor weather between the State of Ohio and the State of Washington.

No violations of NRC requirements were identified concerning this section.

K. POSTING AND LABELING

1. All contaminated areas, waste processing areas,	
conformance with regulations	
2. Packaged radioactive waste materials are	(A) Y () N
labeled in accordance with regulations.	(X) Y () N

Basis for Findings:

While reviewing the licensee's health physics practices, the inspector noted that posting and labeling were properly addressed in the areas inspected.

L. OCCUPATIONAL HEALTH AND SAFETY

1. Describe the occupational health and safety observations made at the licensee's facilities:

Safety shoes, glasses and helmets were required in areas inspected. All personnel working in these areas were provided with the appropriate equipment.

2. Licensee and Occupational Safety and Health Administration were informed of occupational health and safety issues observed during the inspection.

() Y (X) N

4. <u>VIOLATIONS, NON-CITED VIOLATIONS, FOLLOWUP ITEMS, AND OTHER</u> <u>ISSUES</u>

Briefly state (1) the requirements and (2) how and when the licensee violated the requirement. For non-cited violations, indicate why the violation was not cited. Briefly describe followup items and other issues.

No violations of NRC requirements were identified during this inspection.

87104. Appendix A

A-10

Issue Date: 06/04/97