



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II

SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

August 22, 2000

Department of the Army
ATTN: Colonel Patricia L. Nilo
Commandant
U.S. Army Chemical School
Fort Leonard Wood, Missouri 65473-8926

SUBJECT: NRC INSPECTION REPORT 01-02861-05/00-01

Dear Colonel Nilo;

As a result of the Nuclear Regulatory Commission (NRC) inspection conducted on August 7, 2000, an NRC Form 591, SAFETY INSPECTION, is issued for your NRC license. The enclosed form indicates that no items of non-compliance were found during the above described inspection of your licensed activities. Please retain the form in your files. No acknowledgment of this letter is required. However, should you have any questions, we shall be pleased to discuss them with you. In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Thank you for your cooperation.

Sincerely,

Thomas R. Decker, Chief
Materials Licensing/Inspection Branch 1
Division of Nuclear Materials Safety

License No. 01-02861-05
Docket No. 030-17584

Enclosure: NRC Form 591

SAFETY AND COMPLIANCE INSPECTION

1. LICENSEE

Department of the Army
U.S. Army Chemical School
(Fort McClellan)
Fort Leonard Wood, Missouri 65473-8926

REPORT NUMBER(S)

2. REGIONAL OFFICE

REGION II
US NUCLEAR REGULATORY COMMISSION
ATLANTA FEDERAL CENTER
61 FORSYTH ST SW STE 23T85
ATLANTA GA 30303-3415

3. DOCKET NUMBER(S)

030-17584

4. LICENSE NUMBER(S)

01-02861-05

5. DATE(S) OF INSPECTION

August 7, 2000

LICENSEE:

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

- ☒ 1. Based on the inspection findings, no violations were identified.
- ☐ 2. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, NUREG-1600, to exercise discretion, were satisfied. _____ non-cited violation(s) were discussed involving the following requirement(s): _____
- ☐ 3. During this inspection certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which is required to be posted in accordance with 10 CFR 19.11.

STATEMENT OF CORRECTIVE ACTIONS

I hereby state that, within 30 days, the actions described by me to the Inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

TITLE	PRINTED NAME	SIGNATURE	DATE
LICENSEE			
NRC INSPECTOR	Orysia Masnyk Bailey	<i>Orysia Masnyk Bailey</i>	08-11-00

MATERIALS DECOMMISSIONING INSPECTION FIELD NOTES
FOR FACILITIES NEEDING SIGNIFICANT DECOMMISSIONING EFFORT

Region II

Inspection Report No. 01-02861-05/00-01

License No. 01-02861-05
Docket No. 030-17584

Licensee (Name & Address)

Department of the Army
US Army Chemical School
Fort Leonard Wood, Missouri 65473-8926

Licensee Contact: Lisa Kingsberry
Telephone No.: 205 848-7455
Last Amendment No. 15
Date of Amendment: July 27, 2000
Program Code: 3900

Date of Last Inspection October 1, 2000
Date of This Inspection August 7, 2000
Date of Next Inspection October 2000

Type of Inspection: (X) Announced () Unannounced
() Routine (X) Special
() Initial Decomm. (X) Reinspection of Decomm.
Level of Inspection: (X) Normal () Reduced () Extended

Brief Description of Inspection Activities: The inspector evaluated the licensee's progress in decommissioning Fort McClellan.

Brief Description of Findings and Action: The inspector interviewed decommissioning contractor personnel, observed decommissioning work in progress, and reviewed procedures and records. The inspector determined that the licensee's surveys were in accordance with the approved decommissioning plan.

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

Inspector: _____

Orysia Masnyk Bailey
Orysia Masnyk Bailey
Health Physicist

Date 8-11-00

Approved: _____

Thomas R. Decker
Thomas R. Decker, Chief
Licensing/Inspection Branch 1

Date 8/18/2000

[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 each inspection. However, for those areas not covered 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 field notes 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.

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

Licensee has identified two "hotspots" IN Building 3182 which will require small portions of the concrete floor to be scabbled. The licensee expects this to be done in October 2000. The burial mound at Pelham Range will be remediated after approval of the decommissioning plan. The Environmental Assessment for the plan is in the approval process.

Description of Facility Status:

With the exception of the two areas described above, the remaining areas of prior materials use have either been removed from the license following all final (licensee and NRC) surveys or the licensee is completing its final surveys. These areas include some suspected outdoor use areas and several previous Chemical School facilities with no expected contamination. (Based on records review and knowledge of the materials used.

2. INSPECTION OF KEY DECOMMISSIONING ACTIVITIES

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 field notes (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. (X) Y () N

Some residual contamination remains in the burial mound at Pelham Range.

2. Facility license conditions are in place and met by licensee. (X) Y () N

3. Site security and control of contaminated material being maintained in compliance with 10 CFR 20.1801 and 20.1802. (X) Y () N

Procedures are in place for this control, contaminated material outside of the mound has not been accumulated.

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. (X) Y () N

6. Licensee's record keeping is consistent with 10 CFR 30.35, 40.36, and 70.25. (X) Y () N

7. Financial assurance requirements are being maintained in accordance with 10 CFR 30.35, 40.36, and 70.25. (X) Y () N

8. Licensee is conducting site characterization in accordance with applicable radiation protection procedures. (X) Y () N

9. Construction of new site features (e.g., roads, rail spurs, staging areas, sediment control ponds) conforms to DP and does not compromise health and safety of workers and public.
() Y (X) N/A

10. Licensee activities conform to specific license conditions and licensee programs and procedures. (X) Y () N

11. Other licensee activities: () Y (X) N

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

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.). (X) Y () N

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

a. Soil. (X) Y () N

b. Sediment. () Y (X) N/A

c. Surface waters. () Y (X) N/A

d. Groundwater. () Y (X) N/A

e. Other mediums: N/A

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). () Y (X) N/A

b. Solid wastes (e.g., building materials, process and other facility equipment, concrete rubble, soil). (X) Y () N

To licensed waste broker.

c. Other wastes: () Y () N/A

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

Procedures are in place, no waste at this time.

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

Procedures are in place.

7. Restoration of site - Licensee has restored site to meet license conditions and NRC-approved plans. (X) Y () N

Procedures are in place.

8. Licensee survey of material and equipment for free release sufficient to demonstrate compliance with release criteria. (X) Y () N

9. Other licensee activities: () Y (X) N/A

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

C. LICENSEE ACTIVITIES INSPECTED AFTER COMPLETION OF SITE REMEDIATION

Site remediation has not been completed. This next section is in reference to those areas which have been removed from the license. This would include Buildings 1081, 2281, and those portions of Rattlesnake Gulch and Iron Mountain where surveys have been completed.

1. Licensee has submitted NRC Form 314 for disposition of licensed material in accordance with 10 CFR 30.36, 40.42, and 70.38. (X) Y () N

2. Licensee's final survey program is acceptable (see Appendix B for inspection items for final surveys). (X) Y () N

3. NRC confirmatory survey performed. (X) Y () N

4. Site maintenance activities (if any, for restricted use) conform to license conditions and NRC-approved plans and are in place and functional. (X) Y () N

The areas that have been released so far have been released for unrestricted use with no conditions in place.

5. Other licensee activities: () Y (X) N

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

3. INSPECTION OF STANDARD HEALTH AND SAFETY AREAS 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:

Fort McClellan is closed under the Base Relocation and Closure Program. The base Environmental Control personnel remain at the base to oversee final clean up and close out. The Radiation Safety Officer for this license has relocated to Fort Leonard Wood, but continues to oversee the work. The licensee has a contractor ATG, with site management in place.

2. Licensee is performing decommissioning activities in compliance with its approved DP.

(X) Y () N

4. Licensee has implemented procedures for the decommissioning activities identified in the DP.

(X) Y () N

5. The RSC and RSO fulfill license requirements to deal with all decommissioning activities.

(X) Y () N

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

B. FACILITIES

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

The areas that remain to be decommissioned are the burial mound at Pelham Range, and two "hotspot" in Building 3182.

2. The licensee's remediation plan includes all the contaminated facilities and areas on-site and off-site. (X) Y () N

3. 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. (X) Y () N

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:

The remaining are⁴ that may need to be characterized is the burial mound at Pelham Range. The licensee plans to dig up the mound to remediate. This will provide information, along with proposed groundwater wells, to determine if the groundwater in the area has been affected.

6. Licensee's characterization activities performed in conformance with good industry practice. (X) Y () N

Plan is under review.

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

C. EQUIPMENT AND INSTRUMENTATION

1. Survey instruments are applicable to contaminants of interest. (X) Y () N

2. Use of survey instruments appropriate for site. (X) Y () N

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records. The inspector evaluated the instruments, reviewed calibration records, and observed the use of these instruments.

The licensee is using gas proportional detectors and counting smears on a Liquid Scintillation Counter. A percentage of the smears are sent to another laboratory for confirmation. All work is as described in the approved decommissioning plan.

D. MATERIALS

1. Radioactive materials licensed during operations have been removed offsite; residual quantities conform to license conditions. (X) Y () N
2. Security and control of licensed materials, including contaminated areas, is being maintained. (X) Y () N

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

E. TRAINING

1. Licensee has developed training program for new decommissioning activities (e.g., demolition of structures, excavation of soil); program is adequate. (X) Y () N
2. Training program being effectively implemented. (X) Y () N

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

AREA RADIATION SURVEYS AND CONTAMINATION CONTROL

1. Area surveys are being performed in areas being decommissioned. (X) Y () N

The work at this time consists of surveys of cleaned facilities. Procedures are in place for surveys when the mound remediation begins.

2. 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. (X) Y () N

Calculations based on expected contaminants demonstrate this. Procedures in place to reassess as needed.

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

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

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

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

2. All new effluent releases conform to DP and applicable regulations. (X) Y () N

No effluents at this time.

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

Procedures are in place.

4. Temporary storage/staging areas for radioactive wastes from building demolition, equipment dismantlement, soil excavation, etc., are adequately posted and protected. (X) Y () N

Procedures are in place.

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

I. RECORD KEEPING FOR DECOMMISSIONING

1. Copies of the licensee's decommissioning cost estimates and funding methods are on file. (X) Y () N

2. 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). (X) Y () N

3. Licensee's financial assurance conforms with the financial assurance requirements of NRC-approved possession limits and NRC regulations. (X) Y () N

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

J. TRANSPORTATION

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

The licensee plans to fill disposal containers as waste accumulates. Container will be sealed, surveyed, and decontaminated as needed. After placards are affixed the containers will be shipped on the licensee's vehicles in accordance with DOT regulations to a licensed waste facility.

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 inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

K. POSTING AND LABELING

1. All contaminated areas, waste processing areas, and waste handling areas are posted in conformance with regulations. (X) Y () N

2. Packaged radioactive waste materials are labeled in accordance with regulations. (X) Y () N

Procedures are in place.

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

L. OCCUPATIONAL HEALTH AND SAFETY

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

The licensee is conducting activities in accordance with the approved Health and Safety plan in the decommissioning plan. The contractors work with ALARA principles in mind.

2. Licensee and Occupational Safety and Health Administration were informed of occupational health and safety issues observed during the inspection. () Y (X) N/A

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

4. VIOLATIONS, NON-CITED VIOLATIONS, FOLLOWUP ITEMS, AND OTHER ISSUES

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 follow-up items and other issues.

END

APPENDIX B

FINAL SURVEY PROGRAM INSPECTION FIELD NOTES

N/A

1. STATUS OF LICENSEE FINAL SURVEY

A. Final survey report submitted to the NRC. () Y (X) N/A at this time

B. Previous inspection(s) of licensee final survey program conducted. () Y (X) N/A

C. Final survey report not submitted, licensee final survey in progress. (X) Y () N

D. Final survey plan submitted and approved by NRC license reviewer. (X) Y () N

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

2. INSPECTION AREAS FOR LICENSEE FINAL SURVEYS

Notes:

(1) For facilities where an approved decommissioning plan (DP) is required, inspections should be made against commitments in the DP and the licensee's final survey plan (which would have been approved by the NRC license reviewer during license review). For facilities where a DP is not required, inspections should be made against NRC regulations, license conditions, and applicable guidance in NUREG/CR-5849.

(2) For facilities that require a significant decommissioning effort, all the inspection areas listed below should be inspected while the licensee's final survey program is in progress. For small, licensed facilities that do not require a significant decommissioning effort, only some of the inspection areas below may apply, and it may not be practicable to inspect these areas until after the licensee's final survey is completed and the licensee's final survey report has been submitted to NRC.

(3) Inspection of a licensee's final survey may include independent confirmatory measurements by the inspector or NRC contractor. The extent of the confirmatory measurements, and whether the use of an NRC contractor is warranted, depends on a number of factors that are discussed in Section 2.C. In most cases, minimal confirmatory surveys should be sufficient.

(4) The inspector should identify which inspection areas listed below are performed during each inspection.

A. SITE CONDITIONS AT TIME OF LICENSEE FINAL SURVEY

1. Site has been decontaminated/remediated in accordance with DP or site procedures.
() Y (X) N/A

Work in progress.

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

B. LICENSEE FINAL SURVEY PLANS AND PROCEDURES

1. Contaminants:

a. Licensee has identified all potential contaminants. (X) Y () N

b. Licensee has specified acceptable release criteria. (X) Y () N

c. Licensee has clearly documented the basis for any alternate criteria, if applicable.
() Y (X) N/A

2. Organization and Responsibilities:

a. Survey program documented. (X) Y () N

b. Survey staff responsibilities and qualifications documented. (X) Y () N

3. Quality Assurance/Quality Control:

a. Organization (X) Y () N

b. QA Program (X) Y () N

c. Operational Procedures (X) Y () N

d. Document Control/Records Management (X) Y () N

e. Equipment Maintenance and Control (X) Y () N

f. Audits and Corrective Action (X) Y () N

g. Independent third party measurement QC (X) Y () N

4. Laboratory analytical procedures, including QA/QC, acceptable, and results adequately documented. (X) Y () N

5. Field Survey Instrumentation:

a. Survey instrumentation is appropriate for contaminants of interest and site conditions.
(X) Y () N

b. Licensee has properly calibrated survey instrumentation. (X) Y () N

c. Instrument operational procedures adequate (X) Y () N

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

8. Licensee is performing the survey in conformance with the approved survey plan (or regulations, applicable guidance in NUREG/CR-5849, and good industry practice, if NRC approval of a survey plan was not required):

a. All potentially contaminated locations on-site and off-site have been properly classified as "affected" or "unaffected" areas. (X) Y () N

b. "Survey Units" have been properly selected. (X) Y () N

c. Background determination acceptable. (X) Y () N

c. Number and location of measurements and samples in each "survey unit" is acceptable.
(X) Y () N

d. Surface scan procedures and percent coverage acceptable. (X) Y () N

e. Surface activity measurement procedures acceptable.

(1) Direct. (X) Y (X) N

(2) Removable. (X) Y () N

f. Exposure rate measurement procedures acceptable. (X) Y () N

g. Surveying and sampling of the following media conducted as appropriate:

(1) Soil and sediment, surface and subsurface. (X) Y () N

(2) Groundwater. () Y (X) N/A under review

(3) Surface water. () Y (X) N/A

(4) Buildings, interiors and exteriors. (X) Y () N

(5) Equipment and systems. (X) Y () N

(6) Grounds. (X) Y () N

(7) Other media: () Y (X) N/A

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records.

9. Licensee's Final Survey report sufficient to demonstrate that release criteria have been met.

Note: The final survey report will, in general, not be available for review at the time of an "in-process" inspection of a final survey program. However, at the end of the survey project, after the final survey report has been submitted, the inspector should ensure that these areas have been reviewed by either the license reviewer or project manager. If questions remain as to whether these areas have been satisfied by the licensee, or the final survey report has not been reviewed, the areas listed below should be addressed during the inspection.

a. Survey results demonstrate, with 95% confidence, that average residual contamination in each "survey unit" is less than release criteria. () Y () N

Records not reviewed for this, procedures are in place.

b. Survey results demonstrate that the hot-spot criteria in NUREG/CR-5849 have been satisfied. (X) Y () N

c. Elevated survey results investigated by licensee. (X) Y () N

Licensee has identified two "hotspots" for remediation.

d. Unaffected "Survey Units" reclassified, as necessary, based on survey results. () Y (X) N/A

e. Survey report provides sufficient documentation of procedures and QA/QC. (X) Y () N

f. Survey report provides diagrams or other documentation identifying survey locations. (X) Y () N

Basis for Findings:

The inspector based her findings on observation of activities, interview of licensee and contractor personnel and review of procedures and records. The inspectors reviewed records to date, final report not complete.

C. NRC CONFIRMATORY SURVEY

1. Evaluate whether a confirmatory survey is justified.

a. Significant, unresolved, weaknesses identified during the inspection of the licensee's final survey program. () Y (N) N

b. Repetitive violations. () Y (N) N

c. Significant public or Congressional interest. (X) Y () N

d. Small site where an in-process inspection not practical. () Y (X) N

2. If a confirmatory survey is justified, determine if an NRC contractor should be used. Meeting one or more of the three criteria listed below will, in general, justify the use of a contractor.

a. Licensee's final survey involves unique or complex technical issues. () Y (X) N

b. Confirmatory survey is expected to require more than a man-week effort to complete field surveys and sampling. () Y (X) N

c. Confirmatory survey is very high priority that cannot be completed by NRC staff in a timely manner. () Y (X) N

NOTE: The NRC laboratory does not process samples requiring wet chemistry. For wet chemistry analyses, the contract laboratory will be used, regardless of whether the inspector or the contractor performs the confirmatory survey.

END