

SAFETY AND COMPLIANCE INSPECTION

1. LICENSEE
*Tennessee Valley Authority
 Energy Research & Technology Apps.
 Muscle Shoals, AL*

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

REPORT NUMBER(S)

3. DOCKET NUMBER(S)

4. LICENSE NUMBER(S)

5. DATE(S) OF INSPECTION

30-39258

41-25370-01

5/2/00

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	<i>Hector Bermudez</i>	<i>Hector Bermudez</i>	<i>5/2/00</i>

APPENDIX A

FIXED AND PORTABLE GAUGE INSPECTION RECORD

Region 2

Inspection Record No. 00-01

License No. 41-25370-01

Licensee (Name and Address):

Docket No. 38-34258

TVA - Energy Research & Technology Applications

Muscle Shoals AL

Location (Authorized Site) Being Inspected

Licensee Contact: Floyd Spivey

Telephone No. 256-386-2304

Priority: 5 Program Code: 3620

Date of Last Inspection: 10/13/99

Date of This Inspection: 5/2/00

Type of Inspection:

- Announced
- Routine
- Initial

- Unannounced
- Special follow up to previous inspection

Next Inspection Date 5/01 () Normal Reduced () Extended

Justification for change in normal inspection frequency:

To follow up on their corrective action plan which resulted from the previous inspection.

Summary of Findings and Actions:

- No violations cited, clear U.S. Nuclear Regulatory Commission (NRC) Form 591 or regional letter issued
- Non-cited violations (NOV's)
- Violation(s), Form 591 issued
- Violation(s), regional letter issued
- Followup on previous violations

Inspector(s) *H. Bermudez*

(Sign Name)

Date 5/18/00

H. Bermudez

(Print Name)

Approved *M.S. Lesser*

(Sign Name)

Date 5/22/00

M.S. Lesser

(Print Name)



Floyd Spivey

Tennessee Valley Authority

Radiation Safety Manager
Radiation and Chemistry Services

PART I-LICENSE, INSPECTION, INCIDENT/EVENT, AND ENFORCEMENT HISTORY

1. AMENDMENTS AND PROGRAM CHANGES:
(License amendments issued since last inspection, or program changes noted in the license.)

<u>AMENDMENT #</u>	<u>DATE</u>	<u>SUBJECT</u>
4	12/6/99	change RSO and other personnel
5	4/28/00	change RSO

2. INSPECTION AND ENFORCEMENT HISTORY:
(Unresolved issues; previous and repeat violations; Confirmatory Action Letters; and orders)

10/13/99 591 w/NCV's
no other findings under this license.

3. INCIDENT/EVENT HISTORY:
(List any incidents, or events reported to NRC since the last inspection. Citing "None" indicates that regional event logs, event files, and the licensing file have no evidence of any incidents or events since the last inspection.)

none, however, should be sensitive
to several significant ^{recent} personnel changes ^(departures) and
decommissioning timeliness. Also, inspection
will address follow up to their self-assessment
dated 9/30/99.

PART II - INSPECTION DOCUMENTATION

* References that correspond to each inspection documentation topic are in Inspection Procedure 87114, Appendix B, "Fixed and Portable Gauge Inspection References."

The inspection documentation part is to be used by the inspector to assist with the performance of the inspection. Note that not all areas indicated in this part are required to be addressed during each inspection. However, for those areas not covered during the inspection, a notation ("Not Reviewed" or "Not Applicable") should be made in each section, where applicable.

All areas covered during the inspection should be documented in sufficient detail to describe what activities and procedures were observed and/or demonstrated. In addition, the types of records that were reviewed and the time periods covered by those records should be noted. If the licensee demonstrated any practices at your request, describe those demonstrations. The observations and demonstrations you describe in this report, along with measurements and some records review, should substantiate your inspection findings. Attach copies of all licensee documents and records needed to support violations.

Note: Fill in relevant information for additional locations and temporary job sites. Note location involved and details at each location or site.

1. ORGANIZATION AND SCOPE OF PROGRAM:

(Management organizational structure; authorized locations of use, including field offices and temporary job sites; type, quantity, and frequency of byproduct material use; staff size; delegation of authority)

David Sarrette, Mgr. River Svc Ops & Env. Res.
 Jim Flanigan, Prog. Mgr. TYA Nuc Rod & Chem Svcs.

Floyd Spivey, RSO

expecting to reactivate fixed gauge. Very little work under this license at this site.

2. MANAGEMENT OVERSIGHT:

(Management support to radiation safety; Radiation Safety Officer (RSO); program audits or inspections; as low as is reasonable achievable (ALARA) reviews; control and supervision by authorized users)

new RSO assigned to follow up on self assessment. (2/22/00)

Active item tracking system in place. Strong mgmt support. Personnel assigned to complete (due dates established). Consolidating use of material. see attachment.

3. FACILITIES:
(Facilities as described; uses; control of access; engineering controls; calibration facilities; shielding)

no changes since last insp.

4. EQUIPMENT AND INSTRUMENTATION:
(Operable and calibrated survey instruments; procedures; 10 CFR Part 21 procedures)

survey meters calibrated every 6 months. available, in good working order and used when needed.

5. MATERIAL USE, CONTROL, AND TRANSFER:
(Materials and uses authorized; security and control of licensed materials; and procedures for receipt and transfer of licensed material)

no material acquired or disposed of since last insp.

6. AREA RADIATION SURVEYS AND CONTAMINATION CONTROL:
(Radiological surveys; leak tests; inventories; handling of radioactive materials; records; contamination control; public doses).

no use at this site - reviewed records of leak tests of the GC's used at 2 other sites. Results OK.

7. TRAINING AND INSTRUCTIONS TO WORKERS:
(Training and retraining requirements and documentation; interviews and observations of routine work; staff knowledge of all routine activities; 10 CFR Parts 19 and 20 requirements; emergency response)

no use at this site

8. RADIATION PROTECTION:
(Radiation protection program with ALARA provisions; access control; dosimetry; exposure evaluations; dose and survey records and reports; annual notifications to workers; bulletins and other generic communications)

no exposures - TLD's (quarterly) still used.

9. RADIOACTIVE WASTE MANAGEMENT:
(Disposal or transfer of sources; packaging, control, and tracking procedures; records)

no disposals since last insp

10. DECOMMISSIONING:
(Records relevant to decommissioning; decommissioning plan/schedule; notification requirements; cost estimates; funding methods; financial assurance; and Timeliness Rule requirements; changes in radiological conditions since decommissioning plan was submitted)

*Pursuing active decommissioning of fertilizer lab.
notifications as req'd.*

11. TRANSPORTATION:
(Quantities and types of licensed material shipped; packaging design requirements; shipping papers; hazardous materials HAZMAT communication procedures; return of sources; procedures for monitoring radiation and contamination levels of packages; HAZMAT training; and records and reports)

N/A

12. NOTIFICATIONS AND REPORTS:

(Reporting and followup of theft; loss; incidents; overexposures; safety-related equipment failures; change in RSO, authorized user; and radiation exposure reports to individuals)

no incidents to report

13. POSTING AND LABELING:

(Notices; license documents; regulations; bulletins and generic information; area postings; and labeling of containers of licensed material)

old fertilizer lab posted - drum with small amount of waste labeled as req'd.

14. INDEPENDENT AND CONFIRMATORY MEASUREMENTS:

(Areas, both restricted and unrestricted, surveyed, and comparison of data with licensee's results and regulations; and instrument type and calibration date)

sorry - batteries of inspector's geiger went dead. Licensee assured the inspector that the fixed gauge will be surveyed prior to re-activating the area of use (currently closed). Saw gauge with shutter closed & locked.

15. VIOLATIONS, NCVs, AND OTHER SAFETY ISSUES:
 (State requirement and how and when licensee violated the requirement. For NCVs, indicate why the violation was not cited. Attach copies of all licensee documents needed to support violations.)

none

16. PERSONNEL CONTACTED:
 [Identify licensee personnel contacted during the inspection (including those individuals contacted by telephone.)]

** Floyd Spivey
 * Tim Holt
 Judy Johnson
 Lenora Sheffey - Supervisor*

Use the following identification symbols:
 # Individual(s) present at entrance meeting
 * Individual(s) present at exit meeting

17. PERFORMANCE EVALUATION FACTORS (PEFs):

- | | | |
|----|--|---------------------|
| A. | Lack of senior management involvement with the radiation safety program and/or RSO oversight | () Y () N |
| B. | Radiation Safety Officer too busy with other assignments | () Y () N |
| C. | Insufficient staffing | () Y () N |
| D. | Radiation Safety Committee fails to meet or functions inadequately | () N/A () Y () N |
| E. | Inadequate consulting services or inadequate audits conducted | () N/A () Y () N |

Remarks (consider the above assessment and/or other pertinent PEFs with regard to the licensee's oversight of the radiation safety program):

18. Special Conditions or Issues:
 (Special license conditions; year-2000 effects of computer software and embedded systems)

none

PART III - POST- INSPECTION ACTIVITIES

1. REGIONAL FOLLOWUP ON PEFs:

*although this was a clear inspection,
the amount of work needed to be done
warrants a follow up inspection in one year to
ensure decommissioning timeliness.*

2. DEBRIEF WITH REGIONAL STAFF:

(Post-inspection communication with supervisor, regional licensing staff, Agreement State Officer; and/or State Liaison Officer)

3. YEAR-2000 ISSUES:

(Convey, to the NMSS Year-2000 Coordinator, all year-2000 licensee-identified problems and corrective actions taken.)

none

END

APPENDIX A - ATTACHMENT A
DECOMMISSIONING TIMELINESS INSPECTION ATTACHMENT

Licensee: _____

Date of Inspection: _____

1. COMPLIANCE WITH DECOMMISSIONING TIMELINESS RULE

(NOTE: Repeat the answers given in Section 12 of the main body of the inspection record. The issues in subsequent sections are dependent on the answers to these questions.)

A. License to conduct a *principal activity* has expired or been revoked. () Y (~~Y~~) N

B. Licensee has made a decision to permanently cease *principal activities*, at the entire site, or at any separate buildings, or at any outdoor areas, including inactive burial grounds. (~~Y~~) () N

C. A 24-month duration has passed in which no *principal activities* have been conducted under the license at the site, or at any separate buildings, or at any outdoor areas, including inactive burial grounds. (~~Y~~) () N

D. If "Yes" to either A or B or C above:

(1) Identify Site/Bldg/Area: fertilizer lab

(2) Date of occurrence of A, B, or C: _____

2. NOTIFICATION REQUIREMENTS

A. Licensee has provided written notification to the U.S. Nuclear Regulatory Commission (NRC) within 60 days of the occurrence of 1.A., 1.B., or 1.C. above

If "Yes," date of notification: _____

B. If the licensee is requesting to delay initiation of the decommissioning process, the licensee has provided written notification to NRC within 30 days of occurrence of 1.A., 1.B., or 1.C. above.

If "Yes," date of notification: _____

self assessment issued 3/8/00;
on May 2, 2000 the inspector told licensee that they had until 8/8 to notify.
Notification made on 5/5/00, see attachment 2
(~~Y~~) N / A () Y () N

Basis for Findings:

3. DECOMMISSIONING PLAN/SCHEDULE REQUIREMENTS

A. Licensee is required to submit a decommissioning plan per 10 CFR 30.36(g), 40.42(g), 70.38(g), or 10 CFR Part 72?

Y N

If "No" to 3.A., answer the following items B. - F.:

B. The decommissioning work scope is covered by current license conditions.

Y N

C. Decommissioning has been initiated within 60 days of notification to NRC, or NRC has granted a delay.

Y N *N/A yet*

D. If licensee has initiated decommissioning, give date the decommissioning was initiated:

Initiation date: not yet determined / due

E. If decommissioning has been completed, it was completed within 24 months of notification to NRC.

N/A Y N

F. If decommissioning is still scheduled to be completed, it is on schedule to be completed within 24 months of notification to NRC.

N/A Y N

Basis for Findings:

If "Yes" to 3.A., answer the following items G. - J.:

- G. The decommissioning plan has been submitted to NRC within 12 months of notification. () Y () N
If "Yes," date of submittal: _____
If NRC approved, date of NRC approval: _____
- H. Has the licensee submitted an alternative schedule request? () Y () N
If "Yes," date of submittal: _____
- I. If decommissioning has been completed, it was completed within 24 months after approval of the decommissioning plan. () N/A () Y () N
- J. If decommissioning is still scheduled to be completed, it is on schedule to be completed within 24 months after approval of the decommissioning plan. () N/A () Y () N

Basis for Findings:

Violations identified, if any:

none

Rad Safety Non- Nuclear Self Assessment Open Action Items

Action	Responsible Person	Due Date	Status/Comment
Bellefonte Sources - Disposal Decision	M.D. Phillippe	05/01/2000	All Sources going to SQN! 5-1-00
Training Records need to be placed in HIS-20	Floyd Spivey	06/30/2000	Ongoing /Joan Polly
Ship Nuclear Gauges/Sources Widows Creek	Floyd Spivey	07/31/2000	SQN Assisting
FPG Evaluate Nuclear Gauges	Ken Mcvay	09/30/2000	Ongoing
Decommisioning Team Formed	David Sorrelle	09/30/2000	Ongoing
Archive Rad Safety Records	Floyd Spivey	11/30/2000	Ongoing/Sonja Denton
Submit plan for Decommisioning ERC areas	David Sorrelle	12/30/2000	Ongoing

attachment 1

From: "Knuettel, Edward T." <etknuettel@tva.gov>
To: "Hector Bermudez" <hxb1@nrc.gov>
Date: Thu, May 18, 2000 9:22 AM
Subject: FW: Notification for Terminating Licensed Activities on Material License No. 41-25370-01

I am forwarding the email that I sent Dave Collins on May 5, 2000 subsequent to the telephone call among Dave, Floyd Spivey, and myself which I made to notify NRC that TVA had decided to terminate two licensed activities on the subject license.

Please call with any questions/comments. I will call Dave Collins to verify that he received this e-mail.

Terry Knuettel

Corporate Licensing
Senior Project Manager
BR 4X-C
(423) 751-6673 / FAX 751-4478
e-mail: etknuettel@tva.gov

> -----

> From: Knuettel, Edward T.
> Sent: Friday, May 05, 2000 4:11 PM
> To: 'Dave Collins'
> Cc: Chandrasekaran, E. S.; Spivey, Floyd J.; Flanigan, James A.;
> Burzynski, Mark J.; Sorrelle, David W.
> Subject: Notification for Terminating Licensed Activities on Material
> License No. 41-25370-01

>

>

> In accordance with 10 CFR 30.36(d), this is to notify NRC that TVA plans
> to terminate the following two licensed activities currently listed on
> License No. 41-25370-01:

>

> * The Radiation Fertilizer Laboratory
> * The Reservoir Studies at the Hickory Valley location.

>

> TVA plans to submit to NRC a license amendment upon completion of these
> projects. Please contact Floyd Spivey at (256) 386-2304, or Terry
> Knuettel (423) 751-6673 if you have any questions and/or comments
> concerning this action.

>

>

>

> Terry Knuettel

>

> Corporate Licensing
> Senior Project Manager
> BR 4X-C
> (423) 751-6673 / FAX 751-4478
> e-mail: etknuettel@tva.gov

>

attachment 2