030-20460

BSI
BOEING SERVICES INTERNATIONAL P. O. BOX 10838 • PLEASANT HILLS, PA 15236

April 18, 1988
W6190-88-11

U.S. Nuclear Regulatory Commission
Region 1
Nuclear Material Section B
631 Park Avenue
King of Prussia, PA 19406

Log Apr. 18
Remitter R.A. Leeb
Check No. 1285
Amount $120
Fee Category 3P
Type of Fee RENEWAL
Date Check Rec'd 4/27/88
Date Completed 4/27/88
By: A. Kemberling

Subject: Renewal of License No. 37-21292-01
Docket No. 030-20460

Gentlemen:

Boeing Services International (BSI) wishes to apply for renewal of our NRC Byproduct Material License. Those documents referenced in our license describe our program and are included in this renewal applcation by reference. Those documents referenced are as follows:

A. Application dated February 17, 1983
B. Letter dated February 18, 1983
C. Letter dated May 15, 1985
D. Letter dated June 6, 1985
E. Letter dated August 27, 1985
F. Letter dated July 11, 1986
G. Letter dated August 22, 1986
H. Letter dated October 27, 1986
I. Letter dated December 11, 1986

BSI Operations Procedure, METF OP-01, Radiation Protection Program dated February 11, 1983 which was submitted with our original application has been revised. Two copies of the revised METF OP-01 dated April 6, 1988 are submitted for your review.

Should you have any questions or comments, please contact me at (412) 892-6193. A check for $120 is enclosed for the processing fee.

Sincerely,

BOEING SERVICES INTERNATIONAL

L.F. Miller

L.F. Miller
FOMC/METF Deputy Program Manager

8905030195 880609
REG1 LIC30
37-21292-01 PNU

Enclosures:
As stated

cc: W. E. Evans A DIVISION OF BOEING TECHNICAL OPERATIONS, INC.
C. A. Goode

"OFFICIAL RECORD COPY" ML1A

118712
4-20-88

BSI
BOEING SERVICES INTERNATIONAL P. O. BOX 10838 • PLEASANT HILLS, PA 15236

MINING EQUIPMENT TEST FACILITY
OPERATIONS PROCEDURE

METF OP-01

April 6, 1988

Supersedes
METF AP-005
Dated June 1, 1982

SUBJECT: RADIATION PROTECTION PROGRAM

AFFECTED ORGANIZATIONS:

Mining Equipment Test Facility
Pittsburgh Research Center

L. F. Miller
METF Deputy Program Manager

1.0 PURPOSE

This document defines the objectives, responsibilities, hazards and procedures necessary to establish and maintain the subject program supplementary to the existing overall program of occupational safety and health at the MFTF.

2.0 SCOPE

This program applies to all Boeing Services International, Inc. (BSI/METF) employees working with the nuclear sources installed in the Hydraulic Transport Research Facility (HTRF) Building 23, and in the Analytical Laboratory, Building 13.

3.0 OBJECTIVE

The basic objective of this program is to establish and ensure the safe use of any and all nuclear gaging devices now located in, or planned for installation at, the HTRF and Analytical Laboratory. By adherence to this procedure, BSI management and its safety function will maintain occupational radiation exposure as low as is reasonably achievable and will comply with all applicable federal, state, local and BOM regulations.

4.0 LOCATION AND DESCRIPTION OF SOURCES

1. Five each Kay-Ray, model No. 7050B, density gaging devices, 500 mC activity, Cesium 137 radioisotope.

Serial No.	Location
6481	12" vertical pipeline, Level 7, Tower 3
6482	6" horizontal pipeline, in upper pipe gallery
6483	12" pipeline, @ 45° bend
6484	6" horizontal pipeline, in lower pipe gallery
6485	12" horizontal pipeline, in upper pipe gallery

2. Three each Kay-Ray, model No. 7050B, density gaging devices, 1,000 mC activity, Cesium 137 radioisotope.

Serial No.	Location
6486	18" horizontal pipeline, in lower pipe gallery
6487	18" pipeline, @ 45° bend
6488	18" horizontal pipeline, in upper pipe gallery

3. SAI prototype density gage, developed by Science Applications International under DOE contract, no serial number, located in the 18-inch pipeline in the vertical pipe gallery.

Neutron Source Model N-101-18 4.3 mC
located at Level 7, Tower 3

Gamma Source Model G-101-18 20 mC
located at Level 6, Tower 3

4. The following sealed sources are stored in a locked and secured cabinet on the fifth floor of the HTRF:

Source	Quantity	Size
Cesium 137	3	1 mC
Cesium 137	2	20 mC
Californium 252	1	5.4 mC
Californium 252	1	10.7 mC
Californium 252	1	1.1 mC
Californium 252	1	2.7 mC

5. AID Model 511 portable gas chromatograph located in Office 204, Analytical Laboratory, containing a 200 mC, Hydrogen 3 source.

5.0 RESPONSIBILITIES

5.1 Program Manager

1. Designate a radiation protection officer.

2. Ensure that the radiation protection officer and other users are qualified and receive proper training.

3. Ensure that all applicable regulations are followed.

5.2 Radiation Protection Officer

1. Coordinate the safe use of the licensed material and ensure compliance with the applicable parts of the Title 10, Code of Federal Regulations.

2. Ensure that a personnel-monitoring program is maintained, including the maintenance of personnel-exposure records, the notification to individuals and their supervisors of exposures approaching the maximum permissible levels, and recommended remedial action.

3. Ensure that personnel are instructed in the proper use of radiation monitoring devices.

4. Ensure that periodic or special radiation surveys of all radionuclide and radiation facilities are conducted, and that records of all such surveys are maintained.

5. Monitor the purchasing, receiving, storing, processing, and dispensing of all radionuclides and/or radiation-producing equipment and maintain pertinent records.

6. Ensure that facilities to be used in conjunction with radionuclides and/or radiation-producing equipment are inspected to determine that appropriate radiation safety features are present.

7. Furnish consulting services to personnel at all levels of responsibility on all aspects of radiation protection.

8. Supervise and coordinate the waste-disposal program, including the keeping of waste-storage and disposal records.

9. Ensure the proper storage of all radioactive materials not in use.

10. Ensure that leak tests on all sealed sources are performed and that records of such tests are kept.

11. Obtain and maintain current copies of all Federal Regulations pertaining to radiation safety and have copies available of all applicable Nuclear Regulatory Commission (NRC) licenses.

12. Upon request, supply data concerning the METF radiation safety program to the Nuclear Regulatory Commission or any other applicable governing or regulatory agency.

13. Ensure that a copy of each medical examination report and other pertinent individual health records are kept on file permanently in the individual's medical folder.

14. Review all written operating procedures involving the use of ionizing radiation material and/or radiation-producing equipment.

15. Notify management immediately in any case of personnel exposure above the permissible limit, or any radiation situation creating a hazard.

16. Revise the subject procedures whenever necessary.

17. Maintain and control keys for all source shutter locks and maintain a log of when shutters are opened.

5.3 HTRF and Analytical Laboratory Supervisors

1. Ensure that HTRF employees who regularly work near the sources are provided film badges.

2. Ensure that the sources are closed and locked if work is being performed on the detector.

3. Ensure that the sources and source holders are not moved or altered without a licensed person being present.

4. Ensure that all personnel are aware of the source locations.

5.4 Employees

1. Notify the responsible supervisor immediately if there is any incident involving possible damage to the source housing or personnel exposure to radiation.

2. Never work in the vicinity of the sources without notifying the responsible supervisor.

6.0 FILM BADGE PROGRAM

1. All HTRF employees who regularly work in the vicinity of the sources will wear film badges.

2. The radiation protection officer will determine and originate the film badge services and maintain applicable records.

3. Gamma- and neutron-sensitive film badges will be worn.

4. Film badges will be exchanged on a monthly basis.

7.0 INSPECTIONS

1. The radiation protection officer will use the portable G-M counter to verify acceptable radiation levels before any personnel work in the vicinity of the sources, and if any damage to the source housing is suspected.

2. Leak tests will be conducted as required for the specific device. The radiation protection officer will determine and originate the leak test services and maintain applicable records.

8.0 CONTROL MEASURES

1. At the HTRF all sources are permanently installed in the pipe gallery or in locked storage. The HTRF is located in a fenced-in, limited-access government research center.

2. The portable gas chromatograph is used in a supervised and locked office in the Analytical Laboratory in the same limited-access government research center.

3. No BSI employee will modify, or in any way handle, sources or source housings. Only licensed manufacturers or subcontractors will perform those operations.

4. Shutters on sources so equipped will be closed and locked when the gages are not being used.

9.0 EMERGENCY PROCEDURE

1. In the event of an accident involving radiation, the BSI radiation officer will notify the BOM radiation protection officer, who will notify the NRC. In the event the BOM radiation officer cannot be reached, the BSI radiation protection officer will notify the NRC directly.

2. Rope off a 15-foot-diameter area around the suspected source head.

3. Post warning signs prohibiting access to the area.

4. Inform BOM radiation officer and BSI management of the situation and its present status.

5. Verbally inform <u>all</u> employees that they are to remain clear of the source areas, and if need be evacuate the building.

BETWEEN: I

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03120
STATUS CODE: 2
FEE CATEGORY: 3P
EXP. DATE: 19880430
FEE COMMENTS: ---

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: BOEING SERV. INTL., INC.
RECEIVED DATE: 880420
DOCKET NO: 3020460
CONTROL NO.: 108742
LICENSE NO.: 37-21292-01
ACTION TYPE: RENEWAL

2. FEE ATTACHED
AMOUNT: 120.00
CHECK NO.: 1285

3. COMMENTS

SIGNED BF
DATE 4/22/88

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED /)

1. FEE CATEGORY AND AMOUNT: 3P $120

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:
AMENDMENT ---
RENEWAL /
LICENSE ---

3. OTHER ---

SIGNED S. Kimberla
DATE 4/25/88