

Form AEC-313R
(9-62)

UNITED STATES ATOMIC ENERGY COMMISSION
APPLICATION FOR BYPRODUCT MATERIAL LICENSE—
USE OF SEALED SOURCES IN RADIOGRAPHY

Form approved.
Budget Bureau No. 38-R137

SEE ATTACHED FORM AEC-313R INSTRUCTIONS—USE SUPPLEMENTAL SHEET WHERE NECESSARY
BE SURE ALL ITEMS ARE COMPLETED AND THAT ALL NECESSARY ATTACHMENTS ARE FURNISHED. IF ANY PORTION
OF THE APPLICATION IS NOT APPLICABLE SPECIFICALLY SO STATE. DEFICIENT OR INCOMPLETE APPLICATIONS
MAY BE RETURNED WITHOUT CONSIDERATION.

1(a) NAME AND ADDRESS OF APPLICANT Day & Zimmermann, Inc. Lone Star Division Texarkana, Texas 75501	2. PREVIOUS LICENSE NUMBER(S) (Indicate if application is for renewal or amendment of an existing byproduct material license.) Renewal of License 42-15051-02 W/Amendment No. 01
1(b) APPLICANT IS: An individual <input type="checkbox"/> A partnership <input type="checkbox"/> A Corporation <input checked="" type="checkbox"/> An Unincorporated Association <input type="checkbox"/> Other <input type="checkbox"/> If applicant is other than an individual, the applicable section on the reverse side must be completed.	3. LOCATION(S) WHERE SEALED SOURCES WILL BE USED AND/OR STORED. (If it will be made in states other than named in 1(a), they should be listed here.) Lone Star Army Ammunition Plant Bowie County, Texas (15 miles west of Texarkana, Texas)

4. SEALED SOURCES TO BE USED IN RADIOGRAPHY

BYPRODUCT MATERIAL (Element and Mass No.)	SOURCE MODEL NUMBER	NAME OF MANUFACTURER	MAXIMUM ACTIVITY PER SOURCE	NUMBER OF SOURCES
A. Cobalt-60	A. A453-2	A. TECH OP, Inc.	A. 200 Curies	A. 1
B.	B.	B.	B.	B.
C.	C.	C.	C.	C.

5. RADIOGRAPHIC EXPOSURE DEVICES AND/OR STORAGE CONTAINERS TO BE USED WITH SOURCES LISTED ABOVE

MODEL NUMBER	NAME OF MANUFACTURER (If custom made, attach complete design specification.)
A. 500 (Exposure Device) B. 8607280044 850821 REG4 LIC30 C. 42-15051-02 PDR	A. TECH OP, Inc., Burlington, Mass. B. C.

6. THE FOLLOWING INFORMATION IS ATTACHED AS A PART OF THIS APPLICATION: (Check appropriate blocks and attach information called for in the instructions with this form.)

	Not Applicable	Attached	Previously Submitted
(a) Description of radiographic facilities (Instruction 6-a)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> on Oct 3, 1972
(b) Description of radiation detection instruments to be used (Instruction 6-b)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> on (DATE) 11
(c) Instrument calibration procedures (Instruction 6-c)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> on (DATE) 11
(d) Personnel monitoring equipment (Instruction 6-d)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> on (DATE) 11
(e) Operating and emergency procedures (Instruction 6-e)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> on (DATE) 11
(f) Training program (Instruction 6-f)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> on (DATE) 11
(g) Internal inspection system or other management control (Instruction 6-g)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> on (DATE) 11
(h) Overall organizational structure (Instruction 6-h)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> on (DATE) 11
(i) Leak testing procedures (Instruction 6-i)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> on (DATE) 11

(Revised 6-8-73, 7-18-73, 8-15-73)

CERTIFICATE (This item must be completed by applicant)

7. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PART 30, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

License Fee Information

on Reverse Side

Day & Zimmermann, Inc., Lone Star Div.

Applicant Named in Item 1

Joe B. Raffaelli
JOE B. RAFFAELLI, JR.
Plant Manager

95249

Title of Certifying Official

WARNING.—18 U.S.C., Section 1001, Act of June 25, 1948; 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

LEGAL STRUCTURE OF APPLICANT

If applicant is a corporation, complete Items 8 through 11; if applicant is a partnership, complete Items 12 through 14; if applicant is an unincorporated association or a legal entity other than a partnership or corporation, complete Items 15 and 16. Attach separate sheets where space provided proves inadequate.

CORPORATION

8 STOCK OF APPLICANT CORPORATION

NO. OF SHARES AUTHORIZED	NO. OF SHARES ISSUED	NO. OF SHARES SUBSCRIBED	TOTAL NUMBER OF:	
			(a) Stockholders	(b) Subscribers
50,000 Preferred	24,442	None	8	None
5,000,000 Common	977,820	None	8	None

9 Is applicant corporation directly or indirectly controlled by another corporation or other legal entity?

YES ☐NO ☐

If answer is "YES" give name and address of other corporation or other legal entity and describe how such control exists and the extent thereof.

10 (a) Identify by name and address any individual, corporation, or other legal entity (1) owning 10 percent or more of the stock of applicant corporation issued and outstanding or (2) subscribing to 10 percent or more of the authorized but unissued stock of the corporation.

(b) Identify by name and address all officers and directors of the corporation.

Harold L. Yoh, Jr.
608 Woodleone Road
Bryn Maur, Pennsylvania 19010

See List Submitted 7-18-73

11 Identify the State, District, Territory, or possession under the laws of which the applicant is incorporated.

Applicant...
Check No. 183322 C
Amount/Fee Category # 150-30
Type of Fee: Penalties
Date Check: 6/30/78
Received By: Jackson

PARTNERSHIP

12 Name and address of each individual or legal entity owning a partnership interest in the applicant

RECEIVED BY LFMB

Date: 6/30/78

13 State the percent of ownership of the applicant partnership held by each of the individuals or legal entities listed in Item 12.

Log: June 78-10. Pen

By: [Signature]

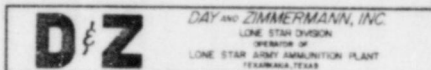
14 Identify the State, District, Territory, or possession under the laws of which the applicant partnership is organized.

Action Compl. 7/3/78

OTHER

15 Describe the nature of the applicant and identify the State, District, Territory, or possession under the laws of which it is organized.

16 State the total number of members or persons holding an ownership in the applicant, identify each by name and address, and indicate the ownership interest thereof.



STANDING ORDER NO. 93

Revision No. 3

SUBJECT Radiation Protection Safety Program
EFFECTIVE March 6, 1979

Standing Order No. 93, Revision No. 2 dated June 3, 1975, is revised as follows:

- a. Remove page and insert new page as indicated below:

REMOVE PAGE

8

INSERT PAGE

8

- b. Changed portion of the text is indicated by an asterisk along the left margin.

- c. With the revision of page 8, the entire Standing Order becomes Standing Order No. 93, Revision No. 3, effective March 6, 1979, and should be so marked.

SUBMITTED BY:

APPROVED:

June McDonald
Methods & Procedures

W R Reed
Director, Finance &
Administration

AUTHORIZED:

CONCURRENCE:

for Murray
General Manager

Joe B. Alexander
JOE B. ALEXANDER
Contracting Officer's
Representative

STANDING ORDER NO. 93

Revision No. 2

SUBJECT Radiation Protection Safety Program
EFFECTIVE June 3, 1975

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Changed portion of text is indicated by an asterisk
along the left margin.

100 PURPOSE

* 101 To establish radiation protection procedures at Lone Star Army Ammunition Plant to:

- (a) Assure compliance with Nuclear Regulatory Commission (NRC) regulations and license conditions and all applicable Army Directives.
- (b) Minimize personnel exposure to ionizing radiation.
- (c) Insure that employees are knowledgeable of the hazards and methods of radiation protection.
- (d) Control radioactive materials.

200 SCOPE

* 201 This Standing Order applies to the receiving, storing, shipping, using, transporting, maintaining, and disposing of ionizing radiation-producing material and/or equipment at this plant, with the exception of shipping of the LAW.

300 GENERAL

301 Radiation monitoring equipment will be calibrated in accordance with Inspection Equipment Calibration System.

302 Radioactive materials will be disposed of in accordance with AR 755-15 (Disposal of Unwanted Radioactive Material).

303 Radioactive material and equipment will be shipped off the plant in accordance with AR 55-55 and applicable Federal and State regulations.

304 Responsibilities

* 304.1 Radiation Control Committee is responsible for:

- (1) Conducting a technical and administrative review of each application and planned use of the radioactive material to assure the completeness and adequacy of the application in accordance with current requirements of the Nuclear Regulatory Commission (NRC) and pertinent Army Regulations.
- (2) Enforcing measures prescribed by the Nuclear Regulatory Commission (NRC) and the Department of Army for the safe use, handling, storage, marking and disposal of radioactive materials.
- (3) Maintaining a registry of each radiation producing device as follows:
 - a. Location
 - b. Manufacturer and model number of device
 - c. Type of device
 - d. Portable or stationary
 - e. Authorized use
 - f. Annual production and disposition of isotopes if applicable.

304.2 Radiological Protection Officer is responsible for but not limited to the following:

- (1) Providing guidance on establishing working conditions and operating procedures that comply with current standards, regulations and directives.
- (2) Instructing new personnel in safe working practices, emergency procedures and harmful effects of radiation overexposure.
- (3) Assuring that personnel monitoring devices are used when required and that required records are kept of monitoring results.
- (4) Reviewing operational procedures and advising Radiation Control Committee of any unsafe practices.
- (5) Maintaining a current inventory of radioactive materials and devices emitting radiation.
- (6) Conducting a physical inventory of radioactive materials at least every six months.
- (7) Performing radiation surveys and investigations at least monthly to insure compliance with applicable regulations.
- (8) Investigating and reporting the findings of radiation accidents and incidents.

304.3 Supervisors of Radiation Workers or Radiological Projects (Chief Radiographer, Radiographer and Assistant Radiographer) are responsible for:

- (1) Maintaining a current inventory of all sources of radiation for which they are responsible.
- (2) Knowing the exact location of all sources of radiation for which they are responsible.
- (3) Posting appropriate warning signs and notices.
- (4) Assuring that their personnel have received adequate instructions and training prior to using or being exposed to radiation.
- (5) Controlling personnel exposures and contamination.
- (6) Assuring that radiation sources are secured against unauthorized use.
- (7) Enforcing established procedures, rules, and special precautions.
- (8) Reporting immediately to the radiological protection officer, any accident, unusual incident, personnel injury, suspected overexposure and/or suspected internal exposure.

304.4 Radiation Employees are responsible for:

- (1) Knowing and following established procedures, rules, and special instructions.
- (2) Using safety equipment properly.
- (3) Reporting immediately to supervisor any accident, unusual incident, personal injury (however slight), suspected over-exposure and/or suspected internal exposure.

305 Definitions

305.1 Ionizing Radiation - Electromagnetic or particulate radiation capable of producing ions, directly or indirectly in its passage through matter. Examples: Alpha and beta particles, gamma rays, x-rays, and neutrons. (The word "radiation" will be used in this Standing Order for "ionizing radiation").

305.2 Radiation Control Committee - A committee consisting of qualified personnel, officially appointed by the Plant Manager, with concurrence of the Commanding Officer, to establish local policy and provide guidance to the radiation protection program.

305.3 Radiological Protection Officer - person designated by the Plant Manager, with concurrence of the Commanding Officer, to provide consultation and advice on the degree of hazards associated with radiation and the effectiveness of measures to control these hazards.

305.4 Sealed Source - Any radioactive material that is enclosed in, and is to be used in, a container in a manner intended to prevent leakage or escape of the radioactive material.

305.5 Radiation Controlled Area - Any area, whose access or occupancy is controlled for the purpose of protection of individuals from exposure to radiation and radioactive materials.

305.6 Film Badge - A pack of appropriate photographic film and filters used to determine radiation exposure.

306 Radiation Protection Records

306.1 The following records are pertinent to this Standing Order and will be maintained to document all aspects of the Radiation Protection Safety Program:

- (a) Receipts, transfers and shipments, notification of movement, and instructions to drivers.
- (b) Inventory and leak test records.
- (c) Instrument and source calibration records and certificates.
- (d) Utilization logs and radiation work permits.

- (e) Radiation survey records.
- (f) Environmental monitoring records.
- (g) Waste disposal records.
- (h) Training records, instruction plans, experience and certification of radiation workers.
- (i) Special studies and investigations.
- (j) Inspection Reports.
- (k) Radiation Analysis files.
- (l) All other applicable records as required for AMCR 385.25.

307 Environmental Monitoring

- 307.1 Environmental monitoring will be performed at this plant whenever radiological operations are such that they might have an adverse impact upon the surrounding environment. The results of such environmental monitoring will be used to determine the need to modify controls and/or operations.

308 Personnel Monitoring Equipment

- 308.1 Assigned radiation workers will be required to wear film badges and pocket dosimeters. Dosimeter readings will be logged in at the beginning and end of each shift.

309 Warning Signs

- 309.1 All areas, buildings, enclosures, packages, and containers will be conspicuously posted with radiation warning signs in accordance with Federal Regulations. Additional instructional or precautionary information will be posted as needed but not as a substitute for the signs required by Government Regulations.

310 Administration of Radiation Protection Safety Program

310.1 Objectives

- 310.1.1 To maintain, direct, and administer an effective radiation protection safety program at this plant.
- 310.1.2 To insure that all levels of supervision are properly charged with, and informed regarding their radiological safety responsibility within the scope of their authority.
- 310.1.3 To plan, coordinate, and direct an adequate accident prevention program to meet requirements of all Federal regulations.
- 310.1.4 To insure that supervisors of radiation workers are properly charged with, and informed regarding their safety responsibility within the scope of their authority.

310.2 Policies

310.2.1 Administrative activities in the field of radiological safety will be designed, planned, programmed, and executed to accomplish the following:

- (1) The proposed radiological operation complies with regulations, current standards, and conditions contained in applicable licenses and/or DA authorizations.
- (2) The Operation will not present undue personnel exposure or damage to property.
- (3) Personnel are adequately trained.
- (4) Facilities, equipment, locations, and procedures are adequate to assure safe operation.
- (5) Required conditions and controls are provided.

310.2.2 Each radiation worker at this plant, will be thoroughly informed of his responsibilities and authority in regard to radiological safety.

311 Radiological Training and Qualification311.1 Objective

311.1.1 To ascertain that any individual who uses or supervises the source of radiation, has sufficient training and experience to enable him to deal safely with materials involved.

311.2 Policies

311.2.1 Supervision will maintain a continuous program of follow-up, re-instruction, and enforcement of regulations and procedures with employees to insure that they are adequately trained and informed.

311.2.2 An individual whose training and experience is not adequate, will be required to work under the direct supervision of a person known to be qualified until such time that the individual can demonstrate his ability on the job.

311.2.3 Emergency and security personnel will be informed of the radiological hazards that may be encountered in the performance of their duties. In no case, however, will emergency or security personnel enter a radiation area in which a fire or explosion has occurred, until the area has first been monitored by qualified personnel.

311.2.4 All training will be recorded on DA Form 750, "Record of Training", and placed in each employee's 201 File.

311.3 Responsibilities

311.3.1 The Radiation Control Committee is responsible for determining before an individual uses or supervises the use of sources of radiation, that his training and experience are sufficient to enable him to deal safely with materials involved.

311.3.2 The Chief Radiographer is responsible for scheduling and conducting refresher training for employees during each period of operation, not to exceed six months. Refresher training will cover as a minimum:

- (a) Review of current and past operating procedures.
- (b) Review of applicable NRC Regulations.
- (c) Presentation and discussion of new applicable regulations.

311.3.3 The Radiation Control Committee is responsible for determining the continued qualification of the Chief Radiographer who in turn, will be responsible for determining the continued qualification of Radiographers and Assistant Radiographers. Continued qualification will be based upon observation of work for accuracy and effectiveness in performance of duties in accordance with established procedures.

311.3.4 The Radiological Protection Officer is responsible for:

- (1) Implementing the radiation protection safety program and,
- (2) Providing the Plant Manager, Commanding Officer, Radiation Control Committee, and radiation workers with advice and assistance on all matters pertaining to radiation safety.

312 Personnel Exposure

312.1 Objectives

312.1.1 To devise work procedures within and around radiation areas so that radiation exposures will be kept to a minimum.

312.1.2 To maintain close control of occupancy periods within radiation areas especially where higher radiation levels exist.

312.2 Policies (to conform with NRC requirements)

312.2.1 Exposure of personnel will not exceed the following values:

- (a) Accumulated dose to the whole body, head and trunk, active blood-forming organs, gonads, or lens of the eye will not exceed:

- 1. 1 1/4 rem in any calendar quarter, or
- 2. 5 (N-18) rem total lifetime dose when N equals the present age in years.

312.2.2 Personnel under 19 years of age will not be employed as radiation workers. (As required by NRC Regulation).

312.2.3 Particular care will be exercised when moving radioactive sources through non-radiation areas, in order to prevent unnecessary exposure.

312.2.4 Maintenance that must be performed in a radiation controlled area, will be cleared with the Radiological Protection Officer and Area Supervisor prior to initiation.

312.3 Responsibilities

312.3.1 Supervisors are responsible for:

- (a) providing radiation workers with anti-contamination clothing to prevent contamination of skin, hair, or personal clothing;
- (b) furnishing workers with respiratory protective equipment when required; and
- (c) informing all workers of their particular functions and responsibilities regarding the Radiation Protection Program.

312.3.2 Female radiation workers are responsible for notifying their supervisor at the first indication of pregnancy, so that they will not be exposed to ionizing radiation.

* 312.3.3 The Plant Hospital is responsible for maintaining medical records and for conducting physical examinations once each year on each radiation worker.

312.3.4 Quality Control, Technical Services Division, is responsible for maintaining records of radiation exposure on each radiation worker and furnishing data on exposure to the employee at the time of termination of employment.

400 PROCEDURES401 Receipt and Installation of Radiation Equipment/Materials

<u>Responsibility</u>	<u>Action</u>
Gate Guard	1. Handles incoming shipments of radi. equipment/material in accordance with No. 86, "Control of Sensitive Items."
Stores	2. Notifies Chief Radiographer <u>immediately</u> upon receipt of a radioactive commodity.
Chief Radiographer	3. Monitors shipment with appropriate instruments to determine existence and magnitude of external or internal radiation hazards. 4. Informs Radiation Protection Officer <u>immediately</u> of any excess radiation. 4a. Radiation in excess of 200 MR/HR at the shipping container surface or 10 MR/HR at 1 meter will be considered excessive. 5. If a container is leaking, seals container suitably to prevent spread of contamination.

ResponsibilityAction

Traffic

6. Prepares Form SF 361, "Discrepancy in Shipment Report," or DE Form 6, "Report of Packaging and Handling Deficiencies," when the cause of damage has been determined, e.g. packaging deficiency or damage in transit.

Chief Radiographer

7. Upon acceptance of shipment, initiates action to transfer material from carrier to D&Z vehicle for movement to radiographer facility.

- 7a. The following requirements will apply prior to moving shipment:

- (1) D&Z vehicle will be conspicuously marked with the radiation symbol and the words "Caution - Radioactive Material" (Reference AR 55-55 and AR 385-30).
- (2) Cargo will be limited or arranged to keep radiation levels, to which personnel (including the driver) will be exposed during transportation, as low as possible. The driver will wear a film badge and will not be exposed to ionizing radiation in excess of established limits.
- (3) Containers will be sealed airtight, be free of removable contamination and kept away from the cab of the vehicle.
- (4) The Fire Department, Guard Department and Director of Safety, Plant Protection and Maintenance will be informed of the exact route and time of movement in sufficient time to allow implementation of any special protective measures required.

Radiographer or
Radiation Protection
Officer

8. Accompanies shipment to Radiographic facility with a properly calibrated survey meter, to be able to advise in the event of an emergency.

ResponsibilityAction

402

Radiation Surveys

402.1

Initial Surveys

Radiation Control
Committee and/or
Radiological Protection
Officer

1. Conducts an initial survey of all sites and areas where sources of radiation will be used and/or stored before an operation involving radiation is initiated or operational changes are approved, or upon installation of a radiation producing device.
2. Designates the actual perimeters of radiation areas (Restricted Areas) and classifies as either "Radiation" or "High Radiation" areas.
 - 2a. Areas designated as "Radiation" or "High Radiation" will be defined at the area perimeter with walls or chain barriers which will be conspicuously posted with appropriate radiation warning signs and symbols as required by AR 385-30, AR 55-55, and other such Federal Regulations.
3. Inspects radiation facilities to determine:
 - (a) If additional shielding is required within the area to provide maximum protection for personnel.
 - (b) The normal radiation levels at appropriate locations within and around the facility.
4. Upon completion of initial survey, submits a written report to the Chief Radiographer containing results of the survey.

Radiation Control
Committee and/or
Radiological Protection
Officer

402.2

Routine Surveys

Radiological Protection
Officer

1. Performs a routine survey once a month, for each area in which sources of radiation are used and/or stored.
2. Evaluates radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation.

ResponsibilityAction

3. Includes in the evaluation, a physical survey of the location of materials and equipment, measurements of levels of radiation and/or concentrations of radioactive material in and around the site.
4. When performing area survey, uses suitable instruments, and, when appropriate, smear and air sampling techniques.
5. Observes work habits of personnel during the survey, to obtain data regarding additional sites to be monitored or areas of improvement for the operational procedures.
6. Includes storage areas in monthly surveys.
7. Prepares a written report in duplicate copies following each monthly survey, listing the locations of monitoring points with the results, statement of the hazard, and any recommendations as to decontamination, shielding, procedural changes, etc.
8. Retains one copy of report for file and forwards copy to Chief Radiographer for review and/or appropriate corrective action.

402.3

Annual Survey

Radiation Control
Committee

1. Conducts an annual survey (using outside consultants if necessary) to detect any hazardous conditions as well as any area of non-compliance with NRC license requirements.
2. Prepares a written report of the annual survey results and forwards a copy to Chief Radiographer.
3. Takes appropriate action as required to assure that this plant is in total compliance with NRC and all Federal and Army regulations.

Chief Radiographer

ResponsibilityAction

402.4

Special SurveysRadiological Protection
Officer

1. In addition to the above surveys, conducts special surveys in the event of the following occurrences:
 - (a) Shipment or receipt of radioactive materials - All packages and unloaded vehicles will be surveyed.
 - (b) Termination of a project involving radioactive materials - A survey is required to determine that no contamination exists and that sources of radiation are properly stored or have been disposed of properly.
 - (c) Unplanned events - Loss of control, spill, overexposure, or any unplanned event which could adversely or did adversely affect the safety of the operation. Control will be re-established to prevent the hazard from increasing.
 - (d) Hazardous Operations - Such as decontamination, encapsulation, or smelting of radioactive materials, as authorized by NRC license or DA authorization, will be continually monitored.

*

403

Control of Monitoring Devices

Chief Radiographer

1. Forwards film badge dosimeters to each radiographic facility as required.
2. Furnishes radiographic facility with self-reading pocket dosimeters and film badges when the following occur:
 - (a) Anytime employees are likely to receive a radiation dose in excess of 25% of 1 1/4 rem per calendar quarter, or
 - (b) When an individual is required to enter a high radiation area.
3. Maintains film badge records and furnishes a copy to the Plant Physician and to the Radiological Protection Officer.

Responsibility

Action

Radiographer

4. Issues film badges and/or pocket dosimeters to each qualified individual who may be exposed to radiation or radioactive material.

- 4a. Only the person to whom a film badge and/or pocket dosimeter has been issued will be allowed to wear them.

5. Prepares and maintains an issue sheet identifying badge number with user.

6. At time of initial issue of film badge to an employee, fills out upper portion (Name, Social Security Number, Film Badge No., and Date) of Radiation Exposure Report and forwards to Industrial Relations.

Industrial Relations

7. Files Radiation Exposure Report in employee's 201 File and flags the 201 File to identify that employee as a "radiation worker."

Radiation Personnel

8. Report any unusual occurrence or reading involving badges, immediately to the Chief Radiographer for appropriate action.

Radiographer

9. Stores dosimetric devices in a designated receptacle when not being worn, to prevent the possibility of being lost or forgotten or the possibility of recording a faulty exposure.

- 9a. Storage receptacle will be located so that dosimeters will not be exposed to radiation or excess heat or light.

10. Maintains a Dosimeter Log for recording at the end of each shift (including overtime), dosimeter readings for each wearer.

11. Forwards log to Chief Radiographer at the end of each month so that exposure indications can be posted on personnel records or compared to film badge readings.

ResponsibilityAction

Radiographer

12. Receives new film badges each month from Chief Radiographer and issues them in accordance with above procedure.
13. Returns previous month's film along with issue sheet, to Chief Radiographer.

Chief Radiographer

14. Mails exposed films to appropriate off-plant facility for processing.
15. Maintains quarterly records of film badge reports on Form NRC-4 or NRC-5, or accepted equivalent print-out.

404

Radiation Accidents and Emergencies

Radiation Worker

1. In the event of an emergency, immediately contacts supervisor for instructions.

Supervisor

2. Notifies Radiological Protection Officer and takes immediate action to protect personnel from radiation hazards.

Radiological Protection Officer

3. Monitors all persons suspected of contamination and immediately contacts plant hospital concerning any radiological accident involving injured personnel.
4. Advises/and/or assists emergency personnel as required.
5. Following the emergency, monitors the area and determines the protective devices needed for decontamination purposes.
6. Initiates decontamination procedures for personnel and the area, prior to resuming normal operations.
7. Notifies AEC Regional Compliance Office in accordance with applicable instructions contained in NRC Rules and Regulations Part 20, "Standards For Protection Against Radiation".
8. Prepares a complete report of the accident and includes a statement of corrective actions taken to prevent a recurrence.

ResponsibilityAction

Radiological Protection
Officer

9. Forwards a copy of the report to appropriate AMC office within two weeks of the accident. (Reference AMCR 385-25).
10. Provides any individual exposed to radiation or radioactive material a report on his exposure data as reported to the AEC, at a time not later than the transmittal to the NRC.

405

Reports of Personnel Exposure on Termination of Employment

Industrial Relations

1. Upon termination of employee who has had radiation exposure while employed at this plant, removes Radiation Exposure Report from employee's 201 File and forwards to Quality Control Office.

Quality Control

2. Completes the Radiation Exposure Report, showing radiation exposure at LSAAP, lifetime dose, and unused permissible dose, and returns the original and one copy of the report to Industrial Relations.

Industrial Relations

3. Presents the original of the form to the employee for his records and files the copy of the form in the employee's 201 File.
4. If final exposure determination has not been made at the time of termination of an employee, advises the employee that the Radiation Exposure Report will be mailed to him after the exposure determination has been (no later than 90 days after termination).

Chief Radiographer

5. Completes report of individual's exposure to radiation incurred during period of employment at LSAAP and forwards to NRC within 30 days after the exposure of the individual has been determined or 90 days after date of termination of employment, whichever is earlier.

SUBMITTED BY:

Wm L. Allen
Methods and Procedures

APPROVED:

John R. Jones
Director, Finance &
Administration

AUTHORIZED:

Stanley H. Needles, Jr.
for Plant Manager

CONCURRENCE:

Robert W. Mullins
ROBERT W. MULLINS
Contracting Officer's
Representative