



UNITED STATES
ATOMIC ENERGY COMMISSION
DIVISION OF COMPLIANCE
REGION V
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July 30, 1969

Handwritten initials: JEB

H. E. Book, Senior Radiation Specialist, CO:V

INSPECTOR'S EVALUATION AS PER MM 900-15
DEPARTMENT OF THE ARMY, HEADQUARTERS, U. S. ARMY, FORT RICHARDSON, ALASKA
LICENSE NO. 50-10023-1 - RESULTS OF JULY 14, 1969 INSPECTION

The subject inspection did not disclose any health and safety problems.
The program is now relatively inactive. The next inspection will
probably involve new licensee personnel due to transfer of present
individuals.

Handwritten signature: R. F.

R. F. Fish
Radiation Specialist

Handwritten note: 8/15 A/32

Department of the Army
Headquarters, U. S. Army, Alaska
Fort Richardson, Alaska

License No. 50-10023-1

- R 8/1
H. B. 8/4/69
1. An announced reinspection of the subject licensed program was conducted on July 14, 1969 by R. Fish, Region V Inspector, Division of Compliance. Major G. L. Bower, Nuclear Effects Engineer and Radiation Protection Officer for activities under the subject license, represented the licensee during the entire inspection. Lt. Simpson, Chief of the Chemical Laboratory, and Sergeant K. E. Scales, Senior NCO under Lt. Simpson, were interviewed during the inspection. Mr. William Wagner, U. S. Public Health Assignee, was present during this inspection as a representative of the Alaska Department of Health and Welfare. At the conclusion of the inspection a verbal summary of the findings was presented to Major Bower and a Form AEC-591 was issued showing no items of noncompliance were noted.
 2. There have been some minor changes in the licensee's organization since the previous inspection which took place on August 1, 1967. The Chief of the Chemical Laboratory now reports to the Chief of the NBC Division, G-3. The laboratory is no longer part of the Alaska Support Command. Also, the title of the Division has been changed from CBR to NBC. The Training Division, G-3, has been eliminated. Otherwise, the organization remains as shown in the notes for the August 1, 1967 inspection (attached diagram). There have been some changes in personnel since the last inspection. Col. Dohleman has replaced Lt. Col. R. L. Johnson. Major William R. Green has replaced Lt. Col. H. H. Ledbetter. Lt. Simpson has replaced Lahne. Sergeant Carr has replaced Sergeant Brooks and SP4 Ellett and SP4 Borkowski

have left the Fort. Sergeant Scales said there are 6 technicians who assist in the CBR training and provide manpower for the radioactive waste program. Sergeant Scales said he was physically present during all operation/at the radioactive waste facility. Lt. Simpson's previous training and experience met the requirements of Annex V to the original application (enclosure to letter dated Oct. 18, 1963).

3. The licensee's radiation safety program has not changed since the previous inspection. Sergeant Scales stated that there had not been any changes in the SOPs since the August 1, 1967 inspection. Some updating of these procedures will be initiated in the near future. The most recent IG inspection resulted in two recommendations, a radiation survey of the waste facility once every two weeks and no storage of waste during the winter months. These recommendations will be incorporated into the changes. According to Major Bower, the modified procedures will be submitted to the AEC for approval. Sergeant Scales said the SOPs are posted in the laboratory and they are reviewed by him and the others prior to each operation at the radioactive waste facility.
4. The licensee's waste record keeping system is based on 3 forms. Two forms make up an inventory log. This log shows a description of each shipment received, the date of receipt and the date of processing. The descriptions are on Form DD14-110, one for each item stock number. The summary is on Form DD1348-1. There is also a shipping form, DA Form 2502-R. The following information is recorded on this shipping form: package number, volume, weight, type of package, material description, isotope, activity present, dose rate at surface of package and dose rate at 1 meter from package. These forms are supplemented by invoices and purchase order forms.

5. The licensee serves as a collection location for radioactive waste generated by the military in Alaska. Waste generated at the Fort Greely reactor is normally shipped directly to the ultimate waste disposal company; however, the paperwork is handled by the subject licensee. In the last two years there has been little radioactive waste generated in Alaska. The records show that only one shipment was made during this period. The shipment was sent to Nuclear Engineering Company (Washington site) on July 18, 1968. It contained about 8.5 curies of cobalt 60 sealed sources plus 500-600 mCi of other activity which was mostly electronic tubes and wrist compasses. At the time of the inspection the licensee possessed one drum of waste which contained 6.3 mCi of activity (mostly compasses containing radium).
6. There have been no changes in the licensee's facilities since the August 1, 1967 inspection. The main facility is used to store and pack radioactive waste containers into larger packages. No packages of radioactive waste received by the licensee are opened. The facilities are locked, except when in use, and the keys are controlled by Sergeant Scales. There have been no changes in the posting and labelling.
7. The licensee has not purchased or obtained any new or additional radiation detection instrumentation since the previous inspection. Survey meters are calibrated on a 3-month frequency by the Electronic Equipment Repair Branch at Fort Richardson.
8. Since June 28, 1969 the licensee has been making a radiation survey of the radioactive waste facility every two weeks. Smears are taken each time

work is done in the facility. Surveys are made with a Model AN/PDR 27 survey meter. The results of these surveys are recorded on sheets containing a diagram of the radioactive waste facility. An examination of these records showed radiation levels at the perimeter fence were less than 0.5 mr/hr. The smear results did not show any removable activity above background. Surveys made prior to June 1969 were performed on a monthly frequency.

9. The licensee uses film badges to monitor personnel exposures. Dosimeters with ranges of 0 to 200 and 0 to 600 mr are available. The film badges are supplied by the Army Signal Depot, Sacramento, California and changed on a monthly frequency. The film badge exposure data are recorded on Form DD1141, one for each individual. The Form DD1141s are maintained by the base dispensary. Major Bower said he audits these forms periodically to make sure the information is being properly recorded. Copies of the film badge supplier's reports are kept by Sergeant Scales. An examination of the reports showed no exposures were received in 1968 and in 1969 (thru April 30).
10. Sergeant Scales and Major Bower said there had been no incidents or unusual circumstances associated with activities performed under the subject license since the 1967 inspection.

591 Notes
North:blc
1-4-71

Inspector H. S. North 1/6/70

Reviewer J. E. Book 1/6/70

Department of the Army
Headquarters, U. S. Army, Alaska (USARAL)
APO Seattle, Washington 98749

License No. 50-10023-1

Introduction

1. An announced reinspection of the subject licensed program was conducted on September 17, 1970, by H. S. North, Radiation Specialist, Region V. The inspector was unaccompanied. Subject licensed program was last inspected on July 14, 1969. As a result of that inspection no items of noncompliance were noted and a Form AEC-591 was issued at the conclusion of the inspection.

Inspection Summary and Exit Interview

2. At the conclusion of the inspection the results of the inspection were discussed with Major D. W. Hard, Major R. Minkow, SF C. K. Koestner and later Lt. Col. P. Terlaje and CW4 Donmyer. The licensee was informed that no items of noncompliance had been noted and a Form AEC-591 reflecting these findings was issued at the conclusion of the inspection.

Administration

Persons Contacted

3. During the course of the inspection the inspector interviewed in detail Major R. Minkow, Chief, Chemical Operations Activity (RMDF Officer), Major D. W. Hard, Nuclear Effects Engineer, and USARAL, RPO, SF C. K. Koestner, NCOIC, Chemical Laboratory. The inspector also met but did not interview Lt. Col P. Terlaje, Chief, NBC Division, G-3 USARAL and CW4 Donmyer, Nuclear Weapons Maintenance Technician.

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Organization

4. The licensee described the organization as shown on pages attached to these notes as Annex A and B. Annex A shows the major chain of command beginning with Major General J. Hollingsworth, the Commanding General USARAL (U. S. Army Alaska), leading down to Lt. Col. Terlaje and Majors Hard and Minkow. Annex B shows the organization of the Chemical Operations Activity under which the Radioactive Materials Disposal Facility (RMDF) falls. Major Minkow stated that he was Chief of the Chemical Operations Activity and acting as the Chemical Laboratory Head and had supervisory responsibility for the RMDF.
5. The licensee has no Isotopes Committee.

Radiation Safety

6. Major Hard stated that he is the RPO, USARAL, and has full authority to regulate activities from a standpoint of radiation safety. Hard's authority is derived by reason of his position in the chain of command. Hard stated that he assured that surveys are performed, and that operations are in compliance with procedures.

Procedures

7. Procedures are required and are identified as both procedures and limitations contained in the application for license dated April 15, 1963, with the amendment of February 26, 1964, and the application for license amendment dated February 14, 1966. The licensee's representatives stated that copies of the procedures were available. The licensee's representatives stated that procedures had not been changed without prior approval of the Division of Materials Licensing. The licensee's representatives stated that procedures were being revised and would be submitted to the AEC before they were changed unless the license was cancelled first.

Receipt and Transfer

8. The licensee's representatives stated that there had been no exports. The licensee receives all radioactive waste from military (Army) supply activities in the form of prepackaged materials for disposal. The licensee stated that three packages of waste were received between March 1969 and February 1970. The licensee stated that the three packages containing 7.3, 2.85 and an unknown number of millicuries, respectively, including radium-226, tritium and U-238 in the form of alpha check sources. The materials were disposed by transfer to California Nuclear Company during February of 1970. The licensee's representatives stated that Major G. L. Bower, Nuclear Effects Engineer and Radiation Protection Officer, departed from the facility on March 21, 1970, necessitating the closure of the RMDF since no personnel authorized to conduct waste disposal activities were on the station. Subsequent to the disposal of February 1970 the licensee has received no licensed materials.

Inventory

9. At the time of the inspection the licensee possessed no radioactive waste. All waste was disposed during February 1970 by transfer to California Nuclear Company.

Operations, Facilities, and Instrumentation

Use of Licensed Materials

10. The licensee's use of materials under the subject license has been limited to the receipt of prepackaged waste from military activities which has been held in a fence enclosed, restricted, storage area until instructions for disposal by transfer have been received from higher headquarters. Personnel present at the time of the inspection were unfamiliar with the activities

under the license because they had not been present during periods when waste was possessed and disposed. Historical information relating to receipt and transfer was available only from records.

Facilities and Equipment

11. There have been no changes in the licensee's facilities since the last inspection.
12. During periods when licensed materials were possessed they were stored in the fenced, locked, secured, amunition area, an area designated ^{as} ~~as~~ the RMDF, (Radioactive Material Diposal Facility) where its security was assured by a 24-hour guard.

Instrumentation

13. The licensee's instrumentation has not changed since the last inspection. Instruments are calibrated at quarterly intervals.

Posting and Labelling

14. The licensee had posted a Form AEC-3. The licensee stated that the fenced restricted area was posted with "Caution Radioactive Materials" signs. In view of the fact that no material was in storage in the facility the inspector did not tour the facility during this inspection.

Radiological Practices

Survey Program

15. The licensee makes twice monthly surveys whether there is material in storage or not. The survey consists of radiation measurements using a AN/PDR-27 GM type survey instrument. Radiation levels ^{at} ~~of~~ the perimeter of the restricted area are recorded on a sketch which identifies the instrument used, the date of the survey, and the signature of the individual performing the survey. A review of the results of surveys showed all

values to be less than 0.1 mr/hr which was equivalent to background at that location.

Personnel Monitoring

16. The licensee uses film badges supplied by the Sacramento Signal Depot at monthly intervals. The licensee also uses type IM/9E, 0 - 200 mr dosimeters. The licensee has available IM/93A, 0 - 600 rad and IM/147 0 - 500 millirad dosimeters. The licensee receives approximately 40 to 50 monthly badges, a maximum of 9 of which have been used by personnel at the RMDF. Records of personnel exposure are maintained on Forms DD1141 in the individual's medical jacket. At the time of the inspection none of the individuals who had actually worked with radioactive material prior to the final transfer of material in February 1970 were still on the station. A review of personnel exposures for individuals presently assigned to this committee showed 0 exposures. The licensee's representatives stated that none of the individuals formerly assigned to the activity had exceed quarterly exposures of $1\frac{1}{2}$ rem per calendar quarter or 5 rem per year.

Waste Disposal

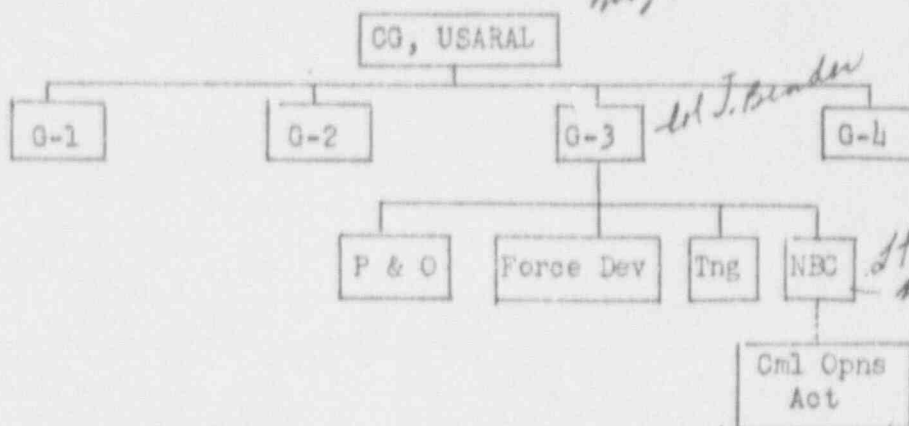
17. The licensee's representatives stated that disposal of waste is by transfer to commercial waste disposal activities designated by Edgewood Arsenal which has contracting authority. The most recent disposal in February 1970 was to California Nuclear.

Miscellaneous

18. The licensee's representatives stated that there were no unreported incidents and no unusual occurrences. The licensee has no AEC contracts.

5. Information Required.

c. Activity related to command



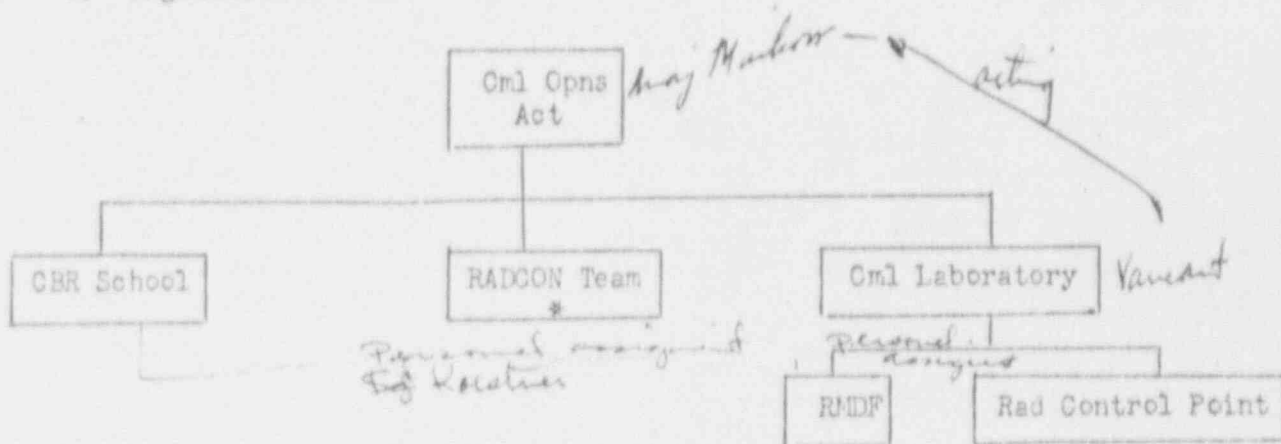
Operational Control - - - - -
Staff Control - - - - -

Personnel of Chemical Operations Activity are assigned to Headquarters and Headquarters Company, US Army, Alaska.

Annex A

5. Information Required.

b. Organization Chart



* Composed of all personnel from the Chemical Operations Activity, supplemented by personnel from G-3, NBC. Electronic equipment repairmen provided by Service Company, USAG, Fort Richardson. The team is activated on alert from the USARAL Operations Center or HQ, Fort Richardson for NAICP requirements.

ANNEX B