USAEHA

U.S. Army Environmental Hygiene Agency

INDUSTRIAL RADIATION SURVEY PROTOCOL NO. 27-43-E2HU-94
SEVENTH INFANTRY DIVISION AND FORT ORD
FORT ORD, CALIFORNIA

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Nationally Recognized as the Center of Matrixed Occupational and Environmental Health Excellence

Since 1942, USAEHA has provided worldwide preventive medicine support to the Army, Department of Defense and other Federal agencies. The USAEHA accomplishes this mission by providing information and consultative services to leaders and decision makers charged with the responsibility for the occupational and environmental health of military and civilian service members and associated communities worldwide. The USAEHA is unique nationally in its ability to matrix and tailor its staff, representing a wide array of scientific disciplines, for immediate response to occupational and environmental health crises and issues.

LIST OF DEVELOPERS

(A) Harris Edge - Chief, Industrial Health Physics Branch, HPD, USAEHA.

(B) CPT Christopher Clayton, Nuclear Medical Science Officer, Industrial Health Physics Branch, HPD, USAEHA.

(C) CPT Robert Friedman, Nuclear Medical Science Officer, Industrial Health Physics Branch, HPD, USAEHA.

(D) SFC Oscar James, Health Physics Specialist, Industrial Health Physics Branch, HPD, USAEHA.

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DEPARTMENT OF THE ARMY
U. S. ARMY ENVIRONMENTAL HYGIENE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5422

REPLY TO
ATTENTION OF

EXECUTIVE SUMMARY
INDUSTRIAL RADIATION SURVEY PROTOCOL NO. 27-43-E2HU-94
SEVENTH INFANTRY DIVISION AND FORT ORD
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10 JANUARY-15 APRIL 1994

1. This Survey Protocol (SP) for the U.S. Army Fort Ord, CA, specifies that the facilities and areas that used and stored Nuclear Regulatory Commission (NRC) and Department of Army (DA) licensed radioactive materials will be surveyed. Decontamination will be performed, when applicable. This SP describes surveys and monitoring procedures as required in order to decontaminate by removing contaminated materials and resurveying the area. This will allow the release of the facilities for unrestricted use.

2. The facilities to be surveyed include surfaces within 202 buildings, insides of vents and duct works, and four outdoor sites that may have been subjected to operations involving radium dials in vehicles and other radioactive materials.

3. The U.S. Army Environmental Hygiene Agency (USAEHA) will effect the removal of radiological contaminated materials that exceed the NRC and state standards. However, this plan does not include procedures for any destructive decontamination operations that may be required after the characterization surveys have been performed. Remediation of contaminated structures will be provided by a civilian contractor under a separate survey plan, if required.

4. A Quality Assurance Plan will be developed and followed throughout the survey process to ensure that the work is performed in compliance with the SP, NUREG/CR-5849, and other applicable specifications and requirements.

5. In addition, the survey program will be conducted in such a way as to be certain that the following regulations, guides, and standards are met: All applicable regulations from the State of California Regulations; pertinent parts of the U.S. Code of Federal Regulations; applicable Army regulations; regulatory guides from the regulating agencies (e.g., the NRC and the Environmental Protection Agency (EPA) and the standards set forth by certain institutions or technical societies (e.g., the International Commission on Radiological Protection (ICRP), National Council on Radiation Protection and Measurements (NCRP), and the American National Standards Institute (ANSI).

6. In the unlikely event that contamination is found, the Occupational and Radiation Protection Programs will consist of a set of policies, procedures, and instructions to protect workers, the general public, and the environment. The Occupational and Radiation Protection Programs will provide occupational health, health physics, industrial, and safety elements.

7. The Radiation Protection Program, if required, will include requirements to monitor radiation and radioactive materials, to control distribution and release of radioactive materials, and to keep radiation exposures within 10 CFR, Part 20 limits and as low as reasonably achievable (ALARA). The related Industrial Safety and Hygiene Program will be concerned primarily with protection against nonradioactive exposures and hazards and will be administered in accordance with regulations from Occupational Safety and Health Administration.

8. The surveying operations will be performed and managed for the Army by USAEHA. There are five different Army activities that have NRC licensed radioactive materials used and stored at Fort Ord. The authorized uses of radioactive commodities at Fort Ord are covered under ten specific NRC licenses for world-wide use of radioactive commodities. The individual Army licensees, U.S. Army Armament, Munitions, and Chemical Command (AMCCOM); U.S. Army Communications-Electronics Command (CECOM); U.S. Army Tank Automotive Command (TACOM); and the U.S. Army Aviation and Troop Support Command (AVSCOM) under the command of the U.S. Army Materiel Command (AMC), are responsible for the overall management of all NRC licenses that covers the Army's radioactive commodities program. The USAEHA has agreed to perform and manage the survey operations for the Army licenses with their review and concurrence for Fort Ord, CA. The USAEHA will provide a Quality Assurance expert under a separate contract to ensure that the day to day work is performed in accordance with terms of this plan.

9. The cost for this project will be provided by the Army. Any radioactive waste and mixed-waste materials will be managed and disposed of under the Army's Radioactive Waste Program. The disposal of all radioactive waste and mixed waste will be in accordance with procedures staffed and approved by the NRC and state agencies.

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BASE CLOSURE

PLAN

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KEY PLAYERS FOR THE FORT ORD BASE CLOSURE PROJECT

1. U.S. Army Materiel Command, AMCSF-P. Will coordinate the Survey Protocol with the NRC and the Army's NRC licensees. Staff recommended changes and amendments with same. Consult with USAEHA on findings and recommendations provided to the NRC and the State of California.

2. U.S. Army Forces Command, FCJ8-BC. Provide guidance and coordination between AMC, USAEHA, Fort Ord and DA Staff for Installation Management.

3. U.S. Army Environmental Hygiene Agency, Industrial Health Physics Branch. Will manage the overall Radiological Surveying efforts at Fort Ord. Will coordinate and staff all Army NRC license and non-NRC licensed concerns with the Army commodity mangers in the U.S. Army Material Command (AMC), NRC and the State of California. Develop and staff the SP with AMC, NRC licensees, NRC and the State of California. Coordinate survey activities with the Fort Ord Base Closure Office and the Fort Ord Radiation Protection Officer.

4. U.S. Army Environmental Hygiene Agency, Radiochemistry Analysis Branch (RAB). Will manage the overall Radiochemistry Laboratory efforts at Fort Ord. Provide technical assistance to the Industrial Health Physics Branch, and provide oversight and quality assurance (QA) to laboratory and monitoring support staff assigned onsite at Fort Ord.

5. U.S. Army Communications-Electronic Command (CECOM), AMSEL-SF-RER. The CECOM will provide the use of its Mobile Radiological Laboratory to support onsite analysis of radiological samples. The Mobile Laboratory will provide USAEHA with the ability to analyze for removable gross alpha, gross beta-gamma and tritium contamination onsite. This capability is required to meet time scheduled mandates at Fort Ord.

6. Seneca Army Depot Radiological Assistance Team. Will provide radiological survey monitoring personnel to affect the survey process. Seneca Army Depot personnel will be used by the survey protocol developed by USAEHA and approved by NRC and the NRC licensees. Seneca personnel will become familiar with the locations and magnitude of the sources of ionizing radiation to which personnel may be exposed during the course of their work. In addition, the Health Physicist Consultant and the Fort Ord Radiation Protection Officer will be available to consult with personnel, review detailed work procedures; review and QA all collected data.

7. Fort Ord Radiation Protection Officer (RPO). Will provide the onsite radiation protection program, and direct the general safety program with the Fort Ord Safety Office. Assist all supporting elements with logistical support, provide management and coordination with the Army Radioactive Material Waste Disposal Office; assist USAEHA with coordinating and staffing mixed-waste and non-NRC licensed materials with the State of California.

8. Onsite Health Physicist Consultant. The USAEHA will provide an onsite Health Physicist Consultant to provide day to day health physics support to all supporting elements at Fort Ord. Consult with USAEHA on compliance with the SP; QA collected data, instrumentation calibration and required daily checks for equipment, consult with Radiological Analysis Branch on QA, laboratory counting procedures and perform radiological data reviews. Consult with the Fort Ord RPO on radiation protection issues. Consult with all support staff on proposed changes in the SP; any identifiable potential radiological health hazard and technical requirements.

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TENTATIVE SCHEDULE

1. Survey Protocol completed by USAEHA by 15 December 1993.

2. Submit Survey Protocol to AMC for staffing with Army NRC licensees, the Nuclear Regulatory Commission and the State of California by 20 December 1993.

3. Coordinate availability of support facility with Fort Ord, California, by 10 December 1993 - completed on 6 December 1993.

4. Coordinate the expected arrival of the U.S. Army Communications-Electronics Command's Mobile Radiological Laboratory by 10 December 1993 - completed 7 December 1993, expected arrival of the Mobile Radiological Laboratory is 28-31 December 1993, pending the availability of support funds from DA-BRAC Office. Schedule provides CECOM 1 week (3-7 January 1994) for hook-up, set up and to run its start-up procedures.

5. Coordinate the expected arrival of Seneca Army Depot personnel at Fort Ord - completed on 6 December 1993 - expected arrival of Seneca personnel on Fort Ord is pending on funding from DA-BRAC Office. Supplies will start to be shipped for arrival at Fort Ord for 28-31 December 1993. Current schedule calls for Seneca personnel to arrive onsite 10 January 1994.

6. Industrial Health Physics and Radiochemistry Analysis Branch. All USAEHA personnel and the USAEHA Health Physicist Consultant are scheduled to arrive on 10 January 1994. One week is scheduled for training, Survey Protocol indoctrination sessions, survey instrumentation familiarization sessions and review of all player's roles.

7. Radiological surveys will start after appropriate training has been completed but no later than 18 January 1994. The tentative selection of facilities to be surveyed will follow the priority established by the Fort Ord-BRAC Office. The current schedule calls for all buildings in Group I to be surveyed first. Buildings listed in Group II through Group IV will be surveyed in sequential order.

8. The initial plan was prepared to complete the scoping and characterization surveys, limited decontamination operations and resurvey or verification surveys by 15 April 1994. Provide a final report to Fort Ord-BRAC and to AMC by 15 May 1994. The AMC will be required to staff the final report with Army NRC licensees and with the NRC.