SECTION 5

SCOPING SURVEY

5.1 Purpose. This site sampling plan specifically addresses the means by which the scoping survey will characterize the facilities at Fort Ord, CA.

5.2 References: See Appendix A

5.3 Historical Data Review Summary.

5.3.1 The historical review completed by USAEHA serves as an initial indication of the scope of work. It will also serve as the guidance for which aspects of the site sampling plan must be implemented in each specific area.

5.3.2 Currently, buildings have been identified as structures that served as operation or storage facilities for radioactive material. Some have documented surveys of the sealed sources.

5.3.2.1 Each facility can be classified as a:

(A) Maintenance facility.

(B) Storage facility.

(C) Operational facility/areas.

5.3.2.2 There are only a few specific isotopes of interest at Fort Ord. These are as follows:

(A) Americium-241

(B) Nickel-63

(C) Promethium-147

(D) Tritium (H-3). This is the major isotope of interest.

(E) Cesium-137

(F) Thorium-232

(G) Uranium-238 (one facility)

(H) Radium-226. This is a major isotope of interest.

5.4 Classification of Facilities.

5.4.1 Storage facilities include arms rooms, Nuclear Biological Chemical (NBC) rooms, and general storage areas. They will be surveyed In Accordance With (IAW) the sampling plan in subsection 5.5 below.

5.4.2 Maintenance Facilities. Can be surveyed as Storage Facilities if records of wipe tests and/or surveys are available and support the conclusion that contamination is unlikely. If records are unavailable or inadequate, the maintenance facility will be surveyed IAW NUREG/CR-5849 to determine its classification as affected or unaffected.

5.4.3 Operational areas include the Nuclear Weapons Support Branch (DU), the two DRMO yards, the wash down pads, and the old ASP Yard on the beach. These areas will be surveyed IAW NUREG/CR-5849.

5.5 Sampling Plan. Most facilities will be classified as storage facilities. Since the only radioactive material stored at Fort Ord was in the form of sealed source commodities, the probability of contamination is lower than in operational nuclear facilities. The scoping survey is a good faith effort to prove that contamination is unlikely or non-existent in these facilities. The scoping survey sampling plan generally conforms to the termination survey outlined in NUREG/CR-5849, but differs as follows:

5.5.1 Only 33% of the area will be surveyed in the scoping survey. This will be accomplished by using 3m x 3m grids in all facilities.

5.5.2 If the room contained an alpha, beta-gamma, or gamma emitter, the data sets for each grid will be collected in the "lazy z" manner within the grids (i.e., 5 data points each for alpha and beta-gamma hand-held survey instruments, and one μR reading one meter from the center of the surface of the grid). Distances should be 1m from the center point for the outlying 4 data points. A NUCON smear will also be taken at the point of highest meter reading in the grid. The grid is then marked with a bar code from the data-logger or other designator.

5.5.3 The data set will also include one LS wipe adjacent to the NUCON wipe (the grid will be marked with an additional bar code or other designator). The grid will also be scanned with a windowless gas-flow proportional (beta) counter if wipe results warrant such actions.

5.5.4 Room size will determine the number of data sets taken in each room. Most rooms of interest are smaller than 3m x 3m. In this case, simply take one data set on the floor and one set on each wall.

5.5.4.1 Rooms larger than 3m x 3m will have the first data set taken in the northwest (NW) corner (or, "base grid"). All other "grids" will be developed by measuring 3m perpendicularly in each direction from the grid designator in the base grid. Repeat this process until the room has been completely covered in grids for the floor. Walls need only be one grid high.

5.5.4.2 For rooms that contained tritium, at least one data set will be taken on the ceiling (paying particular attention to duct work and ventilation systems).

5.6 Data Analysis. Data will be analyzed IAW CECOM SOP in the CECOM Mobile Laboratory.

5.7 QA and QC. The Quality Assurance/Quality Control (QC) program for the instruments will be done daily IAW AEHA protocol. Ten percent of the wipe samples will sent to RAB, USAEHA, after they have been analyzed by CECOM. All other QA/QC will be conducted by RAB, Laboratory Customer Service Division (LCSD), etc.

5.8 Scoping Survey Results.

5.8.1 If contamination is found, by instrumental or analytical methods, to be greater than the release limit for unrestricted use, the room will be added to the decontamination list.

5.8.2 If contamination is found to be between 75-100% of the release limit, the room will be resurveyed IAW NUREG/CR-5849 (1 x 1m grids for 100% of the grids). If no grids are found to exceed the release limit then the room will be labelled as surveyed, and ready for release for unrestricted use. If contamination over the release limit is found, the room is added to the decontamination list.

5.8.3 If all methods show contamination less than 75% of the release limit, the room will be immediately documented and released for unrestricted use.

5.8.4 All rooms added to the decontamination list will be dealt with IAW the survey protocol.