

**RADIATION MEETING SUMMARY  
ENGINEERING FIELD ACTIVITY WEST (EFA WEST)  
SAN BRUNO, CALIFORNIA, BUILDING 101  
DECEMBER 14, 1994**

Attendees: Michael McClelland (EFA WEST), LCDR Lino Fragoso of the Radiological Affairs Support Office (RASO), and David Martinez and David Preston of PRC Environmental Management, Inc. (PRC).

The purpose of the meeting was to address radiation issues regarding former operations at Hunters Point Annex. Issues that were discussed at the meeting included:

**Statistical Methods for Investigating Radiation Sites**

New guidance regarding nonparametric statistics being used to evaluate radiation sites will be available in December 1994 or January 1995. The new regulation will be discussed in NUREG 1505. This guidance was developed to be used as a multi-agency radiation inspection manual. Currently, this support document is waiting for U.S. Environmental Protection Agency (EPA) approval.

**Contract Agency for Radioactive Waste Characterization and Disposal**

U.S. Army Armament Munitions and Chemical Command (AMCCOM)-Rock Island is the contracting agency for all radioactive waste characterization and disposal at Department of Defense (DoD) facilities. A contractor must be "prequalified" by AMCCOM to perform any radioactive characterization or disposal. Because PRC is not a prequalified contractor with AMCCOM, they will not be able to perform a survey and soil sampling of the investigation-derived waste (IDW) stored in building 810 at Hunters Point Annex (HPA). Chem Nuclear is tentatively scheduled to perform the survey after receipt of the drum and bin inventory from EFA WEST.

**Chem Nuclear Screening of IDW at HPA**

Chem Nuclear is scheduled to perform phase II of the characterization and disposal of potentially radioactive IDW at HPA. Currently, Chem Nuclear is waiting for details regarding the total number of drums and bins to be surveyed to modify the existing scope of work, prior to commencing phase II.

Phase II of the IDW characterization is currently being developed. The Navy is assuming that any radioactive materials that may be encountered in the IDW will be point sources relating to instrumentation dials and gauges. Tentatively, the new scope of work will include survey and sampling of 40 percent of the drums and all of the roll-off bins. However, based on the results of the subsurface investigation by PRC in IR-01/02 and IR-07/18, drums containing IDW from IR-01 may not require characterization. Michael McClelland requested that PRC prepare a technical memorandum providing the rationale for not screening drums and bins containing IDW from IR-01.

Based on a review by EFA WEST and RASO of the memorandum, some of the drums and bins may be excluded from the survey.

Elevated gamma count rates were observed during the surface confirmation radiation survey on a safe found in the area where buildings 505 and 506 were formerly located. The source of the elevated count rates appears to be radioluminescent paint on the dial. The Navy requested that PRC have the dial disposed of along with the rest of the low-level radioactive waste (LLRW) stored at HPA.

### **LLRW Storage**

The LLRW storage bin located in building 414 has been moved to building 130 at HPA as of December 12, 1994. Don Brown, HPA property manager, indicated to David Martinez, who was coordinating the move, that the LLRW storage bin will not be kept in building 130 on a permanent basis. Mr. Brown indicated that the old battery shop may be the location where all IDW will be stored prior to disposal off site. It is not clear as to why building 130 is not a suitable place to store the IDW and LLRW. Michael McClelland will contact Tony Magnuson, Navy's Base Environmental Manager, to resolve this issue.

### **Naval Radiological Defense Laboratory (NRDL) and Formerly Used Defense (FUD) Buildings and Sites Being Surveyed Under CTO 285**

In building 815, 4 LLRW storage tanks were used to store LLRW liquids prior to release into the sanitary sewer system. The release criteria for disposal of LLRW liquids into the sewer system was  $10^{-7}$  microcuries per cubic centimeter ( $\mu\text{Ci/cc}$ ). This level of activity meets the current state and federal discharge requirements.

Additionally, NRDL personnel removed and disposed of "hot cell" tanks in building 815. Documentation of decommissioning and decontamination surveys performed at this building will be sent to EFA WEST and PRC to assist in the radiation investigation at HPA.

PRC asked RASO for a brief description of on any former NRDL or formerly used defense (FUD) buildings or sites and their activities that do not have a NRDL survey report on file. This information will assist EFA WEST and PRC to identify whether a survey should be performed at a particular site.

### **IR-07 and IR-18 Radiation Investigation Under CTO 155**

The work plan submitted in November will be modified to address the following issues:

1. The November work plan included surface and subsurface soil sampling to determine the lateral and vertical extent of radium-containing soils at the two sites. However, after further review of the soil sample results from the surface confirmation radiation survey (SCRS) it was determined that only biased surface soil samples were collected where elevated gamma count rates were observed. No other biased or random

samples were collected. In addition, the National Air and Radiation Environmental Laboratory (NAREL) performed petrographic analysis on three surface soil samples collected in IR-07 and IR-18 and preliminarily found the radium-containing material detected in the soils is naturally occurring.

Based on this information, additional surface soil samples will be collected and have a petrographic and a gamma spectroscopic analysis performed to determine the concentration of  $^{226}\text{Ra}$  in surface soils away from the area where elevated activity was observed during the SCRS. The sample locations will remain the same. But, no subsurface sample will be collected. A petrographic analysis will confirm whether the radium-containing soils have elevated concentrations of  $^{226}\text{Ra}$  due to contamination from other radiation sources or if it is composed of naturally-occurring radioactive material (NORM). A recommendation will be provided after a review of the analytical results from this investigation. If the soils are found to contain only NORM, it is likely EFA WEST and RASO will recommend "no further action."

2. The work plan submitted in November indicated that all but 15 percent of the soil samples to be collected were to be analyzed in PRC's radiation counting laboratory at HPA, the remaining 15 percent of the total were to be analyzed by an off-site laboratory for confirmation purposes. Also, petrographic analysis of soil from the two sites was not discussed. The revised work plan will document that all soil samples will be sent to an off-site laboratory for radiochemical and petrographic analysis.

A risk assessment for IR-07 and IR-18 should use residual radioactive (RESRAD) computer code assuming residential land use because all future land use plans that the City of San Francisco Planning Commission is considering have Parcel A zoned as residential. Parcel A is immediately adjacent to Parcel B (IR-07 and IR-18).