

PROJECT MANGEMENT PLAN EXAMPLES

Prepare Project Support Plans and Documentation - Radiological Controls/ALARA Examples

Example 57

8.4 RADIOLOGICAL CONTROL

This section describes policies and procedures that will be used to meet radiological control program objectives. It also describes the key actions PFP will take to ensure the PFP Stabilization and Deactivation Project activities are completed safely, and that radioactive materials at the PFP are managed in a controlled and safe manner.

8.4.1 Radiological Control Program

The Radiological Control program for the PFP Stabilization and Deactivation Project will be implemented in accordance with the requirements of 10 CFR 835, *Occupational Radiation Protection*, and HSRCM-1, *Hanford Site Radiological Control Manual* .

Implementing procedures are administrated as Hanford Procedures in accordance with the implementation strategy outlined in HNF-SP-1145, *Fluor Daniel Hanford Radiation Protection Program, Implementation of Title 10, Code of Federal Regulations, Part 835* .

A graded approach is necessary for effective implementation of radiation protection programs. Graded approach program elements are designed in accordance with HSRCM-1, Chapter 3, Part 7.

Example 58

10.4 RADIOLOGICAL PROTECTION AND CONTROL

Current Status

The majority of Building 9206 is posted and controlled as a HCA due to the presence of radioactive contamination in excess of 100 times the 10CFR835 values for uranium and associated progeny. A radiological buffer area is established at the HCA boundary to control the spread of contamination as a result of personnel entry/exit and material transfers. There are two radiation areas (dose rates exceeding 5 mrem/hr) in the 9206 facility, inside 9720-17 and Room 15. Areas are posted as airborne radioactivity areas based on potential for airborne radioactivity during planned activities/tasks. The remainder of the facility is posted as a fixed contamination area (see Fig.10.5 and 10.6). Auxiliary structures including Buildings 9720-17 and 9510-2 are posted and controlled as HCAS. The south yard is a soil contamination area. The outside storage pad east of the PIDAS fence was posted as an HCA but has been decontaminated and is now a fixed contamination area containing a few small HCA's.

Radioactive contamination levels on working surfaces are generally less than ten times the 10CFR835 values with the exception of process equipment. Levels on/inside certain process equipment may exceed 100 times the 10CFR835 values. Building 9206 was characterized for transuranic contamination due to the presence of SRS material. Based upon analysis of swipe samples throughout the facility, it was determined that uranium was the radio nuclide of concern. Swipe samples were obtained at locations (inside and outside process equipment) identified by knowledgeable personnel and should be representative of material inside process equipment. Confirmatory samples will be performed during deactivation.

Radiological controls include containment, ventilation/filtration, posting/entry controls, radiological work permits (RWP), and PPE (anti-C clothing, respiratory protection, etc.). A fixative material, if needed, will be selected to prevent contamination migration and/or nuclear criticality and NMC&A criteria, as a part of subproject planning. Primary radiological control requirements are 10CFR835, *Occupational Radiation Protection* DOE N 441.1, *Radiological Protection for DOE Activities*, and Y-12 Plant Y-75 series procedures (*Radiological Control Command Media; Y- 12 Radiological Control Manual*) .

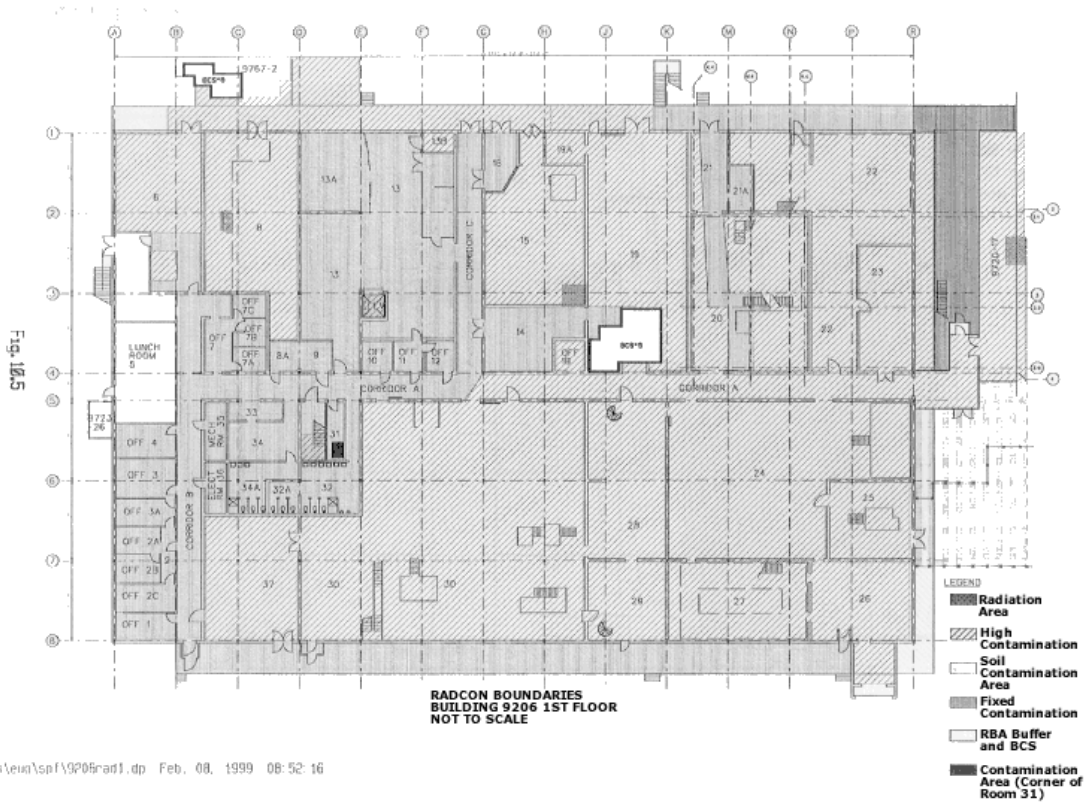
Deactivation Strategy

The anticipated deactivation end-state condition (objective) of Building 9206 is isolated contamination areas with posted/labeled internally contaminated systems. The current HCA footprint of the building will be significantly reduced to small isolated areas of HCA. No radiation areas are expected to remain. In addition, the proposed 10CFR835 revision, which is scheduled to be issued in 1999, allows posting based upon removable contamination levels only. If it is determined that the residual contamination needs to be fixed to minimize the potential for migration, an appropriate fixant will be selected. Even if not required for radiological control fixing residual nuclear material may be required to achieve nuclear criticality or security objectives.

The 9206 Complex has onsite RADCON technicians and staff who provide support for all 9206 activities. They routinely attend daily planning activities including plan of the day and daily crew briefs. RADCON personnel will have continued involvement for deactivation work activity planning and implementation to include: pre-job characterization, RWP/work control development, work coverage/surveys, and post-job surveys. The requirements and radiological controls stated above will be utilized. RADCON will need support/evaluation from HVAC engineering to determine post deactivation S&M ventilation strategy and needs for 9206.

Post-Deactivation S&M Phase

The complex will remain a fixed contamination area. Small isolated areas of HCA may remain, e.g. posted/labeled internally contaminated systems.



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