

Lessons Learned in Transitioning to D&D and Demolition of the First Plutonium Facility within the DOE Complex

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Objective: DOE facilities have been operating in a production mode even as they transition to a Decontamination & Demolition (D&D) mission. Rocky Flats has successfully completed the first full-scale D&D of a production Plutonium building with the recent teardown of Building 779. This paper discusses the transition approach to D&D, lessons learned, and reasons for success that evolved from that project and the potential application to other DOE sites and projects with a similar mission.

Workshop Relationship: Areas addressed by the paper include:

- Authorization Basis – Changes to support D&D mission
- Project Management – Transitioning from operations to project management
- Readiness Assessment – The approach used to support the project and ensure safe implementation
- Accident and Safety Analysis – Identifying and minimizing risk and uncertainty
- Safety Management – ISMS implementation in D&D

Description: The paper summarizes the two-year timeline in taking Building 779 to the ground, starting with removal of the first glovebox and ending with demolition of the complete structure to ground level in December 1999. Some of the items discussed include:

- The organization structure of the Project
- The project management approach
- Barriers to success, both perceived and real
- The crawl, walk, run strategy used to maximize the learning curve and minimize risk
- The readiness assessment strategy used to validate safety precautions, emergency response, training, and readiness to proceed at each major phase of the project
- Subcontractor participation and incentives
- Project phases and sequencing
- General assessment of what did and did not work, and
- Summary of overall lessons learned

Results: The approach used was recognized as highly successful in achieving performance measures with an excellent and constantly improving safety record. Regulatory confidence and support was attained at all stages of the project.

Benefits to Others : The transition to D&D can be an extended process with many options and multiple pathways, many of which add to schedule, cost, and may not lead to success. The results at Rocky Flats indicate a successful approach that has direct application to most DOE Sites. This experience and corresponding lessons learned can substantially shorten the learning curve and minimize false starts for similar projects.