

In-Office Review Summary  
Chemical Process Safety Review  
Shaw AREVA MOX Services Office, Bethesda, MD  
November 18-20, 2008

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PURPOSE

On November 18-20, 2008, United States (U.S.) Nuclear Regulatory Commission (NRC) staff performed an in-office review of chemical process safety issues related to the application by Shaw AREVA MOX Services for a license to possess and use radioactive material at the Mixed Oxide (MOX) Fuel Fabrication Facility (MFFF) to be located on the Savannah River Site in Aiken, South Carolina.

SCOPE OF REVIEW

This review focused on:

- Items relied on for safety (IROFS) sampling for the hydroxylamine nitrate (HAN) explosion event.
- The hydrazoic acid (HN<sub>3</sub>) explosion event (EXP 10), which is related to the HAN explosion event.

SPECIFIC ITEMS DICUSSED

- *Nuclear Safety Evaluation of IROFS Samples*  
DCS01-AAS-DS-ANS-H-38388-2

IROFS sampling for the HAN explosion event is of particular interest because the applicant relies, in part, on sampling to prevent this explosion event. The following tables describe IROFS sampling in: (1) the Aqueous Polishing (AP) process, (2) the reagent building, and (3) the drip trays.

Enclosure 5

EX (2)High

(7 Pages)