

10 CFR Part 40 Workshop  
February 22, 2008  
Regulation of Conversion and  
DeConversion Facilities

Michael Raddatz, Sr. Project Manager

Enclosure 3

# Agenda



- Morning Session
  - Welcome and Introductions NRC/Stakeholders
  - History of the Proposed Rule NRC
  - Basis for Threshold Quantities NRC
  - ISA Requirements Part 70 Appendix H NRC
  - Stakeholders Comments Stakeholders
  - Open Forum NRC/Stakeholders
  - Schedule for Rulemaking NRC



# **Regulatory Options for Licensing Uranium Conversion and Depleted Uranium Deconversion Facilities**

**Public Workshop**

**Timothy C. Johnson  
February 22, 2008**

# Objectives



- **Discuss regulatory options in Commission Paper, SECY-07-0146**
- **Discuss Commission's decisions**



# Background



- **On August 24, 2007, U.S. Nuclear Regulatory Commission (NRC) staff prepared a Commission Paper discussing options (SECY-07-0146).**
- **Based on expected new license applications for conversion and deconversion facilities, NRC staff wanted to address licensing issues prior to application submittals.**
- **SECY-07-0146 addressed the following issues:**
  - **Licensing jurisdiction;**
  - **Require an Integrated Safety Analysis; and**
  - **Impose 10 CFR Part 70, Subpart H, licensing requirements on existing conversion and deconversion facilities.**



# Licensing Jurisdiction



- **Because uranium conversion and deconversion facilities would be licensed under 10 CFR Part 40, facilities located in Agreement States could fall under State licensing authority.**
- **Under its authority in Section 274m of the Atomic Energy Act, on March 22, 2007, the Commission decided to retain authority for licensing new uranium conversion and deconversion facilities based on common defense and security. See Staff Requirements Memorandum at <http://www.nrc.gov/reading-rm/doc-collections/commission/srm/meet/2007/m20070308b.html>.**
- **Retaining licensing authority would ensure a centralized and consistent regulatory regime and protect against the unique chemical hazards at these facilities.**

- **Status of existing uranium conversion and deconversion facility licensing:**
  - **Honeywell, Metropolis, Illinois:** Conversion facility currently under NRC jurisdiction
  - **International Isotopes, Idaho Falls, Idaho:** Deconversion facility currently under NRC jurisdiction
  - **Aerojet Ordnance, Jonesborough, Tennessee:** Deconversion facility under Tennessee licensing jurisdiction; because process does not involve generation of large quantities of hydrogen fluoride (HF), no change in licensing jurisdiction
  - **Starmet, Concord, Massachusetts, and Barnwell, South Carolina:** Deconversion facilities under Agreement State jurisdiction; because sites are undergoing decommissioning, no change in licensing jurisdiction.



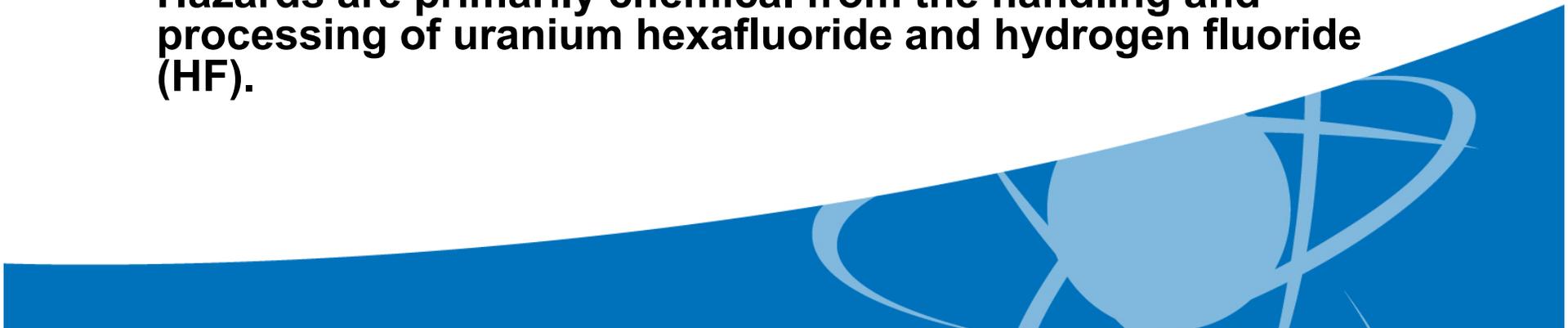
# Requiring an Integrated Safety Analysis



- **In September 2000, NRC promulgated regulations requiring certain Part 70 applicants and licensees to meet risk-informed performance requirements (10 CFR Part 70, Subpart H).**
- **As part of rulemaking, those Part 70 applicants and existing licensees are required to prepare an Integrated Safety Analysis (ISA) and evaluate safety hazards at the facility.**
- **Based on the systematic analysis of safety hazards in the ISA, the applicant and licensee would identify Items Relied on for Safety (IROFS).**



- **Management measures would also be established to ensure that IROFS will be reliable and function when needed.**
- **There are no similar requirements in 10 CFR Part 40 requiring compliance with performance objectives or preparation of an ISA.**
- **Similar hazards exist in both conversion and deconversion facilities as in other fuel cycle facilities.**
- **Hazards are primarily chemical from the handling and processing of uranium hexafluoride and hydrogen fluoride (HF).**



# Impose Part 70, Subpart H, on Existing Facilities



- **Staff evaluated options of rulemaking and imposing requirements by Order.**
- **Staff recommended a Part 40 rulemaking to establish analogous requirements as are in Part 70, Subpart H, for new conversion and deconversion facilities.**
- **Rulemaking would establish a structured, risk-informed approach for evaluating hazards at conversion and deconversion facilities.**
- **Rulemaking would establish consistent requirements for facilities with similar hazards.**

# Impose Part 70, Subpart H, on Existing Facilities



- **Staff evaluated the following options for imposing the Part 70, Subpart H, requirements on existing facilities:**
  - **Impose by order**
  - **Impose through rulemaking**
  - **Impose by rulemaking with application thresholds**
  - **Continue status quo**

**Staff recommended rulemaking approach with applicable thresholds**



- **Staff recommended rulemaking approach with the following applicable thresholds:**
  - **10,000 kilograms of uranium tetrafluoride or uranium hexafluoride (less than 1 14-ton cylinder); and**
  - **1000 pounds of HF (Occupational Safety and Health Administration and U.S. Environmental Protection Agency threshold quantities for occupational and release safety analyses)**
  - **Thresholds would apply to existing and new facilities**
  - **Requirements would not apply to current facilities in decommissioning.**

# Commission Decision



- **Commission decision documented in Staff Requirements Memorandum dated October 10, 2007.**
- **Large facilities with significant quantities of uranium hexafluoride or uranium tetrafluoride would only be licensed by NRC.**
- **Commission approved rulemaking approach requiring certain new and existing conversion and deconversion facilities to comply with Part 70, Subpart H, performance requirements.**
- **Requirements would not apply to current facilities undergoing decommissioning.**

- **Starmet and Aerojet Ordnance facilities would remain under Agreement State jurisdiction.**
- **Prior to developing the proposed rule, staff will conduct a workshop with stakeholders on appropriateness of the proposed thresholds.**

