

Honeywell Metropolis - Overview

Honeywell

- **Metropolis Works Facility (MTW)**
 - Located in Metropolis, Illinois
 - UF6 conversion facility
 - Constructed in 1958
 - Owned/operated by Honeywell International

- **Licensed under 10 CFR Part 40**
 - License issued for a 10-year term; renewed in May 2007
 - Authorized possession 150M lbs. of natural uranium
 - Not licensed to possess enriched uranium

Enclosure 5

License Renewal and MTW ISA

- **Integrated Safety Analysis not required by 10 CFR Part 40**
- **MTW submitted ISA in May 2006 as part of license renewal**
 - **MTW did not commit to meeting full Part 70, Subpart H req'ts.**
 - **MTW ISA was modeled after Part 70 ISA**
 - ◆ Utilizes Process Hazard Analysis (PHA) method
 - ◆ Identified Plant Features and Procedures (PFAPs)
 - Credited to aid in prevention/Mitigation accident consequences
 - Subject to management controls to assure availability (e.g., configuration management)
 - **NRC concluded:**
 - ◆ PHA method used by MTW is consistent with ISA guidance in NUREG-1513
 - ◆ Credible accident scenarios adequately evaluated
 - ◆ Appropriate PFAPs and management measures identified
- **Incorporated as License Condition 18 in renewed license**
 - **ISA fully implemented on November 8, 2007**

Licensing Jurisdiction

- **The NRC, not Agreement States, should retain licensing jurisdiction over major Part 40 fuel cycle facilities (e.g., uranium conversion and deconversion facilities)**
 - **MTW always regulated by Federal Government rather than by States**
 - **Consistent with DOE National Energy Security objectives**
 - **NRC regulation provides a centralized and consistent regulatory regime**
- **Concur with the NRC that the optimal way to regulate conversion facilities is through an integrated regulatory program**

Form of Integrated Safety Analysis (ISA)

- **Part 40 ISA should be consistent with radiological risk**
 - Risks at Part 70 facility are primarily radiological and focused on avoiding criticality.
 - Risks at Part 40 facility are primarily chemical; no criticality hazards.
 - No evidence to suggest that conversion facility risks (chemical or radiological) warrant the imposition of new Subpart H, criticality-driven requirements.
- **SRM and SECY-07-0146 leaves the scope of ISAs for Part 40 facilities**
 - Appears that objective is to implement requirements "similar" to 10 CFR Part 70, Subpart H, rather than to "fully" implement Part 70 ISA.
 - Like the current MTW ISA, Part 40 ISAs should be tailored to radiological risks at facility.

Impact of Full Part 70 ISA on MTW

- **Requiring changes to the MTW ISA may not result in measurable improvement to safety**
 - **Already capable of responding to known health and safety risks under current ISA without imposing additional ISA requirements.**
 - **MTW ISA is required by license condition**
- **Imposing Part 70 ISA requirements could result in significant new financial, technical, and design changes.**
 - **May need to develop/strengthen supporting information and assumptions for MTW “model” resulting in significant “re-do”**
 - **The equipment/system designs at MTW are specific to conversion, not fuel fabrication**
 - ◆ **Different requirements for availability and reliability of equipment for low radiological risks (Part 40) vs. criticality risks (Part 70).**
 - ◆ **Extent of protection against natural phenomena (not oriented towards criticality)**
 - ◆ **Extent of defense-in-depth design**
 - **Part 70 reporting and recordkeeping not a current requirement**
 - **Procedures/training to meet new requirements**

Regulatory Stability

- **MTW expended considerable resources to develop and implement current ISA during license renewal**
 - **Approved in May 2007, fully-implemented in November 2007**
- **Honeywell has only recently implemented the MTW ISA, and it is premature to assume that it will not be effective**
 - **MTW ISA has resulted in improvements in management control and nuclear safety culture**
 - **Potential for incremental improvements from Part 70 ISA not clear**
 - **Imposing new requirements could result in potentially greater negative impact than had we not implemented any ISA previously**
- **Imposing additional requirements that require a retrofit without a showing of need or other justification is a backfit.**
 - **No demonstration that a Part 70-like ISA is necessary for adequate protection, necessary to bring MTW into compliance with Part 40, or cost-justified**

Conclusion

- **Implementation of full Part 70, Subpart H, requirements by conversion facilities is not necessary.**
 - **Current MTW ISA ensures protection of public health and safety.**
 - **MTW ISA is consistent with low radiological risks at conversion facilities.**
 - **Tailored scope for Part 40 ISA is consistent with Commission direction.**
- **Rulemaking effort should strive to ensure regulatory stability**
 - **Implementation of MTW ISA has resulted in improvements in safety.**
 - **But, imposing new/additional ISA requirements has significant costs/impacts without adequate justification.**

Reference Documents

- **"Regulatory Options For Licensing New Uranium Conversion And Depleted Uranium Deconversion Facilities," SECY-07-0146, dated August 24, 2007.**
- **Staff Requirements Memorandum for SECY-07-0146, dated October 10, 2007.**
- **Commissioner Vote Sheets for SECY-07-0146.**
- **"Notice of Meeting," Memorandum from Michael Raddatz to Michael Tschiltz, dated January 17, 2008.**