# Honeywell

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UPS: 301-415-8147

U.S. Nuclear Regulatory Commission Director, Office of Nuclear Material Safety & Safeguards Attention: Document Control Desk Mail Stop T-8A33, Two White Flint N, 11545 Rockville Pike Rockville, MD 20852-2738

Re: Phased Approach to Restart of Uranium Hexafluoride Process at Honeywell Metropolis Plant License No. SUB-526 Docket No. 040-03392

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Dear Sirs:

On December 22, 2003, we agreed to discuss with the NRC prior to restart of the uranium hexafluoride process the results of our investigation and proposed corrective actions related to the uranium hexafluoride release.

We have provided the NRC our root cause analysis for the December 22, 2003, event. During a February 11, 2004, public meeting with the NRC we presented Honeywell's investigation findings and the actions planned to ensure readiness for restart and long term improvements. At the February 11, 2004, NRC public meeting we identified restart action items in seven areas: Emergency Response, Policies and Procedures, Training, Management of Change, Mechanical Integrity, Engineering Controls, and Corrective Actions and Auditing.

During an NRC inspection conducted February 24-26, 2004, we discussed with Mr. Jay Henson our plans for a phased approach to restart of the uranium hexafluoride process. At that meeting it was requested that we document our plans for restart.

Our plan is to start up the uranium hexafluoride process in the order that material flows through the process. Specifically, the sequence will be Ore Preparation – Green Salt – Fluorination – Distillation. Because of the relationship between our Fluorination process and the Distillation process, we plan to consider the two processes as one for restart purposes.

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Our sequenced approach for restart is desirable based on the complexity present in the uranium hexafluoride process. For each sequence we have identified the applicable restart items in the attached lists.

A readiness assessment will be conducted prior to restart of each phase. A key component of the readiness assessment process will be assurance that applicable restart items have been completed. We plan on using a closure package process for closure of restart items. Guidance will be issued to Restart Item Owners concerning preparation of restart closure packages. The restart closure packages will be audited and reviewed by management. A Corporate restart assessment will also be performed prior to restart.

As we proceed with our restart efforts, additional documentation will be available on-site for NRC review.

We will continue to keep NRC Region II apprised of our restart efforts as we move forward.

Sincerely,

Rory J. O'Kane Plant Manager Honeywell Specialty Materials

cc: Regional Administrator, Region II Sam Nunn Federal Center 61 Forsyth Street SW, Suite 23T85 Atlanta, Georgia 30303-8931

> Mr. Jay L. Henson, Chief Fuel Facility Inspection Branch 2 Division of Fuel Facility Inspection, Region II Sam Nunn Federal Center 61 Forsyth Street SW, Suite 23T85 Atlanta, Georgia 30303-8391

US Nuclear Regulatory Commission (UPS: Ph: 301-415-7694) Attention: John Lusher, Project Manager Fuel Cycle Licensing Branch, Mail Stop T-8A33 Two White Flint North, 11545 Rockville Pike Rockville, MD 20852-2738

# **Ore Prep Restart Items**

All Restart Items listed below will be completed prior to restart. If an individual item is not complete and appropriate justification or compensatory measures can be provided, the NRC will be contacted for approval.

# I. Emergency Response

# A. Emergency Response Plan

- 1. Final version of ERP/RCP and emergency response procedures entered into the PT-101 system and submitted to NRC/EPA/ESDA. Amendments include:
  - Clarification of responsibilities and response actions
  - Definitions for Emergency Action Levels and Shelter-in-Place protocol (implemented)
  - Coordination of Honeywell plan with local and state plans

# B. Emergency Response Notification

- 1. Public notification systems selected and installation/repairs of sirens (implemented).
- 2. Dedicated phone number for communication with outside emergency responders (implemented).

## C. Additional Community Outreach

- 1. General Awareness training for Community Emergency Response Team
- 2. Publish initial Community Bulletin (CB)
- 3. Public meeting held between Honeywell and NRC

## D. Verification of Emergency Plan

1. Conduct table top drill prior to restart

## II. Policies and Procedures

## A. Revise or Establish Policies

1. No Items Applicable for restart of Ore Prep

# B. Administrative Procedures and Actions

1. No Items Applicable for restart of Ore Prep

# C. Technical Procedures

- 1. Procedural GAP analysis for UF<sub>6</sub> processes
- 2. Revise and write, as necessary, procedures critical to restart
  - Ore Preparation System Startup and Operation Procedure
  - Ore Preparation System Shut down Procedure
  - Ore Preparation Abnormal Operations Procedure
  - Ore Preparation emergency Operation Procedure
  - No alarm response procedures applicable

- 3. Implement a procedure for situations where specific procedures may not exist
- III. Training

#### A. Trainers

- 1. Identify trainers for Ore Prep
- 2. Provide training on instructional techniques for trainers

## **B.** Training for Restart

1. Training on procedures defined above will be completed for Ore Prep operators and supervisors

## C. Demonstration of Operation experience

- 1. Job Performance Measures (JPMs) for Ore Prep will be established
- 2. Train operators and supervisors on JPMs

## IV. Management of Change

#### A. Process Changes

- 1. The Management of Change (MOC) Procedure (PT-1) will be revised to cover all Process changes
- 2. Revise PT-1 to clarify individuals' roles and responsibilities

## B. Pre-Start Safety Reviews (PSSR)

1. Create a PSSR checklist to be used before management of changes are implemented

#### V. Mechanical Integrity

- A. No Items Applicable for restart of Ore Prep
- VI. Engineering Controls
  - A. No Items Applicable for restart of Ore Prep
- VII. Corrective Actions & Auditing

## A. Auditing Process

- 1. On-Shift Auditors established
- 2. Procedures for on-shift auditing established to include:
  - Areas to be audited
  - Audit standards
  - Reporting of Findings
  - Response to Findings

## **B.** Corrective Action Tracking System

1. Implement web-based corrective action tracking system

# **Green Salt Restart Items**

Ore Prep Restart Items and all Restart Items listed below will be completed prior to restart of Green Salt. If an individual item is not complete and appropriate justification or compensatory measures can be provided, the NRC will be contacted for approval.

#### I. Emergency Response

## A. Emergency Response Notification

- 1. Siren notification system will be functioning
- 2. Pre-recorded messages for shelter-in-place notification and recovery will be available at local radio stations.
- 3. Informational bulletin mailed to public with instructions for shelterin-place

#### II. Policies and Procedures

#### A. Revise or Establish Policies

- 1. Stop work authority procedure approved
- 2. Policy to define requirement for work scheduling/planning approved
- 3. Procedure for procedural use by operators approved
- 4. Management and supervisory oversight for restart defined

#### **B.** Administrative Procedures and Actions

- 1. Procedure Development guide approved
- 2. Reporting Deficient Plant Conditions Procedure approved
- 3. Procedure defining requirements for Pre-Job Briefs will be approved
- 4. Training Matrix for Operator qualifications will be completed

#### C. Technical Procedures

- 1. Technical procedures for Green Salt
  - Green Salt Operations
  - Green Salt startup sequence
  - Reductor Startup
  - Hydrofluorinator startup
  - Green Salt shut down/cool down
  - Green Salt maintenance support
  - Green Salt Alarm Response Procedure (ARP)
  - Green Salt Abnormal Operations Procedure (AOP)
  - Green Salt Emergency Operations Procedure (EOP)

## III. Training

#### A. Trainers

- 1. Identify trainers for Green Salt
- 2. Complete Train-the-Trainer training for trainers for Green Salt

## **B.** Training for Restart

- 1. All Policy training will be complete prior to startup of Green Salt
- 2. All Administrative Procedure training will be complete prior to startup of Green Salt
- 3. Conduct training on new or revised Technical procedures for Green Salt

#### C. Demonstration of Operation experience

- 1. Develop Job Performance Measures for Green Salt
- 2. Train operators and supervisors on JPMs for Green Salt

#### D. Remedial Training

- 1. Define Remedial Training Requirements
- 2. Conduct Remedial Training as Required

#### **IV.** Management of Change

- A. All items will be completed prior to Ore Prep restart
- V. Mechanical Integrity

#### A. Complete the following mechanical integrity actions:

- 1. Complete all preventative maintenance and inspection requirements for critical equipment for Green Salt unit.
- 2. Complete vibration testing for pumps and other rotating equipment in Green Salt and repair equipment out of specification, except for items that are not currently running, or that operate below 1800 rpm
- 3. Complete vibration analysis of rotating equipment after Green Salt startup.

#### VI. Engineering Controls

- A. Complete critical items from engineering studies:
  - 1. Upgrade controls, alarms, and interlocks for HF tank car unloading
  - 2. Install level control on "C" filter fine hopper
  - 3. Installation of Emergency Relief Valve tank

#### VII. Corrective Actions & Auditing

A. No additional items for Green Salt. Items for Ore Prep restart will be completed

# **Restart Plan Fluorination/Distillation**

Green Salt Restart items and all Restart Items listed below will be completed prior to restart. If an individual item is not complete and appropriate justification or compensatory measures can be provided, the NRC will be contacted for approval.

- I. Emergency Response
  - **A.** Restart actions defined for Ore Prep and Green Salt will be completed before Fluorination / Distillation restart.
  - **B.** Finalize ERP/RCP amendments and submit copies to ESDA/NRC/EPA.
  - C. Procedure for ERP copy control will be included as part of ERP/RCP

# II. Policies and Procedures

- A. Revise or Establish Policies
  - 1. Restart actions defined for Green Salt will be completed before Fluorination/Distillation restart.

# B. Administrative Procedures and Actions

1. Restart actions defined for Green Salt will be completed before Fluorination/Distillation restart.

## C. Technical Procedures

1. Technical procedures for Fluorination/Distillation startup are not fully defined at this time. A list of technical procedures will be available on-site the week of March 8, 2004.

# III. Training

## A. Trainers

- 1. Identify trainers for Fluorination/Distillation
- 2. Provide training on instructional techniques

# **B.** Training for Restart

- 1. All Policy training will be complete prior to startup of Green Salt
- 2. All Administrative Procedure training will be complete prior to startup of Green Salt
- 3. Conduct training on new or revised technical procedures

# C. Demonstration of Operation experience

- 1. Job Performance Measures (JPMs) for Fluorination/Distillation will be established
- 2. Train operators and supervisors on JPMs

#### D. Remedial Training

- 1. Define remedial training requirements
- 2. Conduct remedial training as required
- IV. Management of Change

# A. All items will be completed prior to restart of Ore Prep

# V. Mechanical Integrity

## A. Complete the following mechanical integrity actions:

- 1. Complete all preventative maintenance and inspection requirements on critical equipment as a result of gap analyses for fluorination and distillation units.
- 2. Complete vibration testing for pumps and other rotating equipment in Fluorination/Distillation building and repair equipment out of specification, except equipment not currently running or operating below 1800 rpm.
- 3. Pressure test fluorination and distillation system and repair any leaks identified.
- 4. Inspect and replace, if needed, rupture discs on cold traps within the distillation system.
- 5. Establish procedures for leak testing expansion joints during operations.
- 6. Complete vibration analysis of rotating equipment after Fluorination/Distillation startup.

## VI. Engineering Controls

## A. Complete critical items from engineering studies:

- 1. Validate the relief valve system design for cold traps and low boiler condensers
- 2. Improve controls for fluidizing air addition to fluorinators
- 3. High pressure alarms and/or interlocks to fluorinators and cold traps
- 4. Upgrade controls and alarms for KOH scrubbers
- 5. Improve drain and containment for dust collector scrubber.

## VII. Corrective Actions & Auditing

- A. Items for Ore Prep restart will be completed
- **B.** Complete Assessment of Corrective Action Program