

10 CFR PART 21 REPORT

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Fuel Cycle Facility

Event # 41857

Facility: HONEYWELL INTERNATIONAL, INC.	Notification Date / Time: 07/20/2005 16:43 (EDT)
Licensee: HONEYWELL INTERNATIONAL, INC.	Event Date / Time: 07/15/2005 (CDT)
Fac Type: URANIUM HEXAFLUORIDE PRODUCTION	Last Modification: 07/20/2005
Region: 2	Docket #: 04003392
City: METROPOLIS	Agreement State: Yes
County: MASSAC	License #: SUB-526
State: IL	
NRC Notified by: DAREN MAYS	Notifications: MIKE ERNSTES R2
HQ Ops Officer: ARLON COSTA	ELMO COLLINS NMSS
Emergency Class: NON EMERGENCY	PETER WILSON IRD
10 CFR Section: 21.21 UNSPECIFIED PARAGRAPH	

PART 21 NOTIFICATION OF NON-COMPLIANCE WITH ANSI AND QA MANUAL REQUIREMENTS

The following report was submitted by the licensee via facsimile:

"1. During review of quality records for installation of valves in Uranium Hexafluoride cylinders it was determined that this site was not in compliance with ANSI N 14.1 - 1971/2001, 'Uranium Hexafluoride Packaging for Transport.' Specifically, personnel were not recording the torque during valve installation as required by paragraph 6.12.6 of ANSI N 14.1 and Section 10 of Honeywell UF6 Cylinder Quality Assurance Manual. The ANSI standard specifies both a torque and minimum thread engagement for the valves. Even though both parameters are required by the Honeywell procedure this site was using only the thread engagement for determination of proper valve installation. The issue was identified on July 15, 2005. No full cylinders with questionable valve installation have been shipped since this date. All recipients of cylinders pertaining to this matter were notified of the compliance issue on July 20, 2005. Currently there have been no reports of issues related to valves installed by MTW Honeywell.

"2. Since identification of the problem the following additional actions have been taken:

"a. Honeywell has started a review to determine the correlation between thread engagement and torque. Thus far, fourteen cylinders have had valves installed to the proper thread engagement. In every case thus far the thread engagement has correlated with the torque specified by the ANSI standard within the required range of - 200 to 400 ft-lbs. Twenty six more cylinders will have valves installed to the required thread engagement and the torque will be verified. This statistical sample size gives a 99% confidence level of representing the total Honeywell population of Uranium Hexafluoride cylinders in service. Honeywell Metropolis presently has approximately 900 Uranium Hexafluoride cylinders in service. In addition Honeywell has changed approximately 106 valves in recipient cylinders and they will be notified of the cylinder numbers and the issue concerning valve torque.

"b. In accordance with the ANSI N 14.1 standard cylinders have been and will continue to be pressure tested to 100 psig after valve installation to assure the valve and valve joint do not leak.

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"c. A technical evaluation was made concerning the failure mode if the valves were significantly over-torqued. This evaluation concluded that failure of the valve would occur prior to failure of the cylinder fitting and that failure would be obvious upon visual inspection. As noted previously there have been no reported issues related to valves installed by Honeywell. The probability of valves being significantly under torqued while achieving proper thread engagement appears to be very remote.

"d. Only six personnel are presently authorized to perform valve installations and have been re-trained to ensure they understand and comply with the applicable procedures. In addition as a temporary measure direct supervision will be provided to assure compliance with Honeywell procedures that meet ANSI N 14.1 requirements.

"3. Based on the above review and actions Honeywell does not consider that a safety hazard exists with the transport and use of cylinders on which valve replacement was performed by Honeywell."

The licensee has notified Region 2 (J. Hanson, D. Hartland and J. Sharkey).

Honeywell

Specialty Materials

FAX TRANSMISSION –

Honeywell Chemicals
Hwy 45 N, P.O. Box 430
Metropolis, IL 62960

Date: 7/20/05

To: NRC – Operations Center

of Pages:
(including cover)

Company: NRC

Fax #: 301-816-5151

Urgent

Please Review

Reply ASAP

From: Jack Riley / Darren Mays

Fax #: 618-524-6239

Phone #: 618-524-6396

(Call if you did not receive all pages, or if document is illegible)

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Report to NRC in accordance with 10CFR21
Metropolis Works
Honeywell

In accordance with 10CFR21 Reporting of Defects and Non Compliance. The following report is submitted.

From David B. Edwards Plant Manager MTW Site
Specialty Materials Honeywell
PO Box 430
Metropolis, Ill 62960
Phone 618-524-6220

1. During review of quality records for installation of valves in Uranium Hexafluoride cylinders it was determined that this site was not in compliance with ANSI N 14.1 – 1971/2001, "Uranium Hexafluoride Packaging for Transport." Specifically, personnel were not recording the torque during valve installation as required by paragraph 6.12.6 of ANSI N 14.1 and Section 10 of Honeywell UF₆ Cylinder Quality Assurance Manual. The ANSI standard specifies both a torque and minimum thread engagement for the valves. Even though both parameters are required by the Honeywell procedure this site was using only the thread engagement for determination of proper valve installation. The issue was identified on July 15, 2005. No full cylinders with questionable valve installation have been shipped since this date. All recipients of cylinders pertaining to this matter were notified of the compliance issue on July 20, 2005. Currently there have been no reports of issues related to valves installed by MTW Honeywell.
2. Since identification of the problem the following additional actions have been taken:
 - a. Honeywell has started a review to determine the correlation between thread engagement and torque. Thus far, fourteen cylinders have had valves installed to the proper thread engagement. In every case thus far the thread engagement has correlated with the torque specified by the ANSI standard within the required range of – 200 to 400 ft-lbs. Twenty six more cylinders will have valves installed to the required thread engagement and the torque will be verified. This statistical sample size gives a 99% confidence level of representing the total Honeywell population of Uranium Hexafluoride cylinders in service. Honeywell Metropolis presently has approximately 900 Uranium Hexafluoride cylinders in service. In addition Honeywell has changed approximately 106 valves in recipient cylinders and they will be notified of the cylinder numbers and the issue concerning valve torque.
 - b. In accordance with the ANSI N 14.1 standard cylinders have been and will continue to be pressure tested to 100 psig after valve installation to assure the valve and valve joint do not leak
 - c. A technical evaluation was made concerning the failure mode if the valves were significantly over-torqued. This evaluation concluded that failure of

the valve would occur prior to failure of the cylinder fitting and that failure would be obvious upon visual inspection. As noted previously there have been no reported issues related to valves installed by Honeywell. The probability of valves being significantly under torqued while achieving proper thread engagement appears to be very remote.

- d. Only six personnel are presently authorized to perform valve installations and have been re-trained to ensure they understand and comply with the applicable procedures. In addition as a temporary measure direct supervision will be provided to assure compliance with Honeywell procedures that meet ANSIN 14.1 requirements.
3. Based on the above review and actions Honeywell does not consider that a safety hazard exists with the transport and use of cylinders on which valve replacement was performed by Honeywell.