

Specialty Materials  
Honeywell  
P.O. Box 430  
Highway 45 North  
Metropolis, IL 62960  
618 524-2111  
618 524-6239 Fax

March 24, 2005

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

Subject: 30-Day Written Follow-up Report to NRC Event Number #41435 Reported 2-23-05 to NRC  
Operation Center

Docket No. 40-3392, License No. SUB-526

Honeywell Chemicals, Specialty Materials Metropolis Works (MTW) facility reported to the NRC Operation Center as per 10 CFR 21 a valve defect and specification deviation that may present safety hazards. This letter is a required follow-up report to address specific items required by the regulations.

Report to NRC Event Number #41435 Reported 2-23-2005:

Metropolis Works, Metropolis, Illinois (Uranium Conversion Facility) is reporting a potential deviation and defect of a Descote brand valve used in UF<sub>6</sub> 14-Ton Cylinders.

While preparing to fill a new UF<sub>6</sub> 14 Ton Cylinder from Urenco (Supplier/Customer), a potential deviation was recognized during the plant procedural pre-fill 60 lb. pressure check that identified improper torque of the Descote brand valve's packing nut. Torque inspections of all new Urenco cylinders on site were initiated when the deviation became apparent in four cylinders. A total of 57 cylinders at the plant were found to be outside the required torque specifications for these new 14 Ton UF<sub>6</sub> cylinders. All of these valves on-site have been properly torqued as of 2/23/05.

Secondly, one of the valves noted above was re-torqued and passed the procedural pressure check after which the filling process proceeded. Upon filling the cylinder, a small, localized seepage occurred that was controlled immediately per procedure. The cylinder was isolated and allowed to cool (liquid to solid phase) to facilitate valve replacement and further investigation of the valve. During the investigation on 2/22/05, two issues were apparent including improper seating of the valve (though no obvious signs were recognized) and a potential minor crack/imperfection was recognized on this 613 packing nut under magnification. This valve is being prepared to send off-site for detailed metallurgical analysis. MTW personnel have communicated this inconsistency with the certifying organization (Urenco) and determined this is a reportable event as a defect per 10 CFR 21.21 requirements and plant procedures.

No workers have received a chemical exposure from this issue and no material release from the facility occurred. NRC personnel have been informed of this issue Dave Hartland (NRC Region 2) and Michael Raditz (NRC HQ).

|                                       |                           |
|---------------------------------------|---------------------------|
| Markings on the valve are as follows: | (comments):               |
| Descote Valve                         |                           |
| Type 51.1 valve                       | (revision # /size)        |
| N-1000                                | (in casting)              |
| 11 246                                | (valve #/type)            |
| Opposite side of valve:               | (manufacture information) |
| 0011068173                            |                           |

IE20  
NIMSSO1

557 R05  
204250  
636 made in France

Packing Nut Information:  
613  
579 R08  
51.1 Type

**10 CFR 21.21 (d) (4) Written 30-day follow up report required:**

(i) Name and address of the individual or individuals informing the Commission.

Honeywell MTW License SUB-526, Highway 45 North, Metropolis IL 62960

(ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

Ureco provided new UF6 cylinders that were certified for filling at MTW. Plant personnel upon filling identified the defect and noncompliance issues.

|                         |                           |
|-------------------------|---------------------------|
| <i>Primary Address:</i> | <i>U.S. Contact:</i>      |
| Ureco Ltd               | Ureco, Inc.               |
| 18 Oxford Road, Marlow  | Suite 610                 |
| Buckinghamshire         | 2600 Virginia Avenue N.W. |
| SL7 2NL                 | Washington, D.C. 20037    |
| United Kingdom          | USA                       |

(iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

Descote manufactured the valve in question.  
USA contact information for the valves is as follows:

Descote USA High Integrity Valves  
9700 West Gulf bank Road  
Houston, TX 77040

(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

An apparent crack was identified and torque specifications were found to be potentially outside the specifications for the specific certification. This was determined to present a potential common issue with other cylinders provided by this supplier.

(v) The date on which the information of such defect or failure to comply was obtained.

The date this issue was identified by MTW was February 22, 2005.

(vi) In the case of a basic component which contains a defect or fails to comply, the number and location of all such components in use at, supplied for, or being supplied for one or more facilities or activities subject to the regulations in this part.

MTW determined that there were 57 cylinders on site with valves that were questionable. These cylinders on site had the valves removed and a valve with the appropriate specifications installed per plant procedures. It was determined that 22 cylinders were in transit from MTW that had passed plant filling procedures, in route for European facilities. MTW personnel inspected 6 cylinders that were in transit for similar discrepancies based on interface with Department of Transportation (DOT) personnel and special conditions of the H(U) certificate. One

cylinder was identified as having a potentially flawed packing nut and arrangements were made to return this cylinder to MTW. The remaining cylinders in transit were allowed to continue normal transport and are currently outside the USA in route to their final destination. The location of these type of cylinders in the United States was determined to be at MTW and potentially at USEC facilities. MTW personnel have been in communication regarding this issue with a USEC representative to assure appropriate actions are taken.

(vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

MTW is working with Urenco (cylinder supplying organization) to assure proper procedures are in place and that similar conditions are not presented in the future.

Corrective actions are as follows:

- MTW is changing out all Urenco cylinder valves that are questionable with valves that have valid certifications. This will continue until Urenco receives the ANSI ruling on the appropriateness of their procedures.
- MTW personnel have inspected 6 cylinders that are in transit for appropriate condition and to assure any leakage has not been observed. This was performed with the coordination of the appropriate DOT personnel guidance for further transport. None of these 6 cylinders that were inspected had signs of leakage at the valve or packing nut.
- The valve that exhibited apparent cracking has been sent for metallurgical analysis with coordination with the supplying company (Urenco). Urenco will review the results.
- Of the six cylinders inspected in transit, one appeared to have a flaw in the packing nut. The cylinder has been returned to MTW and is being evaluated.
- Urenco has requested ANSI to review the appropriateness of their procedure/practice in handling these valves. ANSI has not provided feedback at this time.

(viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

No additional advice until ANSI recommendations are assessed.

There were no exposures to individuals as a result of this event. Actions are being put in place to prevent a reoccurrence of this type of event. For further questions regarding this event please contact Mr. Michael Ginzel, Health Physics Supervisor, at 618-524-6349 for additional support.

Sincerely,



David B. Edwards  
Plant Manager

cc: D. Mays  
M. Ginzel  
B. Vandermeulen

U.S. Nuclear Regulatory Commission  
Attention: Michael Raddatz,  
Fuel Cycle Licensing Branch, Mail Stop T-8A33  
Two White Flint North, 11545 Rockville Pike  
Rockville, MD 20852-2738

(UPS: 301-415-6334)

Regional Administrator  
Attention: David Hartland, Project Manager  
Region II, US Nuclear Regulatory Commission  
Sam Nunn Atlanta Federal Center  
23 T85, 61 Forsyth Street, S.W.  
Atlanta, GA 30303-3415

(UPS: 404-562-4701)