

Fuel Cycle Facility

Event # 42377

Facility: HONEYWELL INTERNATIONAL, INC.	Notification Date / Time: 02/28/2006 15:00 (EST)
Licensee: HONEYWELL INTERNATIONAL, INC.	Event Date / Time: 02/22/2006 17:00 (CST)
Fac Type: URANIUM HEXAFLUORIDE PRODUCTION	Last Modification: 02/28/2006
Region: 2	Docket #: 04003392
City: METROPOLIS	Agreement State: Yes
County: MASSAC	License #: SUB-526
State: IL	
NRC Notified by: JAMES TORTORELLI	Notifications: STEPHEN CAHILL R2
HQ Ops Officer: MIKE RIPLEY	CHARLES MILLER NMSS
Emergency Class: NON EMERGENCY	
10 CFR Section: 21.21	UNSPECIFIED PARAGRAPH

PART 21 NOTIFICATION - DEFECT IN A PORT REDUCER

"Honeywell, Metropolis Facility (MTW) mechanics were installing a new BS&B manufactured rupture disc, corresponding safety head, and port reducer on the inlet of the relief valve on the Alternate Primary Cold Trap, E-600. The disc and head were part of an approved change. The safety heads (disc holders) have a port between the disc and relief valve to install a tell-tale indicator. This safety head was for a 1-1/2 in. disc. The normal port size of 1/2 in. pipe (normal O.D. = 0.84 in.) was reduced to 1/4 in. pipe (normal O.D. = 0.54 in.) to allow clearance between the safety head fasteners and the companion flange studs. To facilitate the site requirements of 1/2 in. pipe size and the clearance needs of the manufacturer, the port reducer was fabricated from a single piece of metal, in this case Monel. MTW had already welded a 1/2 in. Hex valve to the port and the mechanics had installed the head / disc / port reducer / valve assembly onto the piping. As the tell-tale gauge was installed, the port reducer broke into two pieces. The break was at the machined reduction in the outer diameter.

"On inspection a fabrication flaw was found in the port reducer. The large end of the port reducer has an I.D. of 0.55 inches and the small end has an O.D. of 0.54 inches, machined down from the O.D. of 0.84 at the large end. The small O.D. section was specified to be 2.00 inches long. It was improperly machined approximately 2.63 inches long so that the 0.55 I.D. came within a very small distance of the 0.54 O.D. When the gauge was being hand tightened, the port reducer broke at this thin wall point.

"MTW reverted to the previous design and all port reducers were collected for investigation.

"The licensee notified NRC Region 2 (J. Pelchat)."

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Fuel Cycle Facility	Event Number: 42377
Facility: HONEYWELL INTERNATIONAL, INC. RX Type: URANIUM HEXAFLUORIDE PRODUCTION Comments: UF6 CONVERSION (DRY PROCESS) Region: 2 City: METROPOLIS State: IL County: MASSAC License #: SUB-526 Agreement: Y Docket: 04003392 NRC Notified By: JAMES TORTORELLI HQ OPS Officer: Steve Sandin	Notification Date: 28 FEB 2006 Notification Time: 1500 CST Event Date: 22 FEB 2006 Event Time: 1700 CST Last Update Date:
Emergency Class: NON EMERGENCY Part 21 Notification of existence of a defect	Person (Organization):

Event Text

NOTIFICATION OF EXISTANCE OF A DEFECT in a PORT REDUCER
 Honeywell, Metropolis Facility (MTW) mechanics were installing a new BS&B manufactured rupture disc, corresponding safety head, and port reducer on the inlet of the relief valve on the Alternate Primary Cold Trap, E-600. The disc and head were part of an approved change. The safety heads (disc holders) have a port between the disc and relief valve to install a tell-tale indicator. This safety head was for a 1-1/2" disc. The normal port size of 1/2" pipe (normal O.D. = 0.84") was reduced to 1/4" pipe (normal O.D. = 0.54") to allow clearance between the safety head fasteners and the companion flange studs. To facilitate the site requirements of 1/2" pipe size and the clearance needs of the manufacturer, the port reducer was fabricated from a single piece of metal, in this case Monel. MTW had already welded a 1/2" Hex valve to the port and the mechanics had installed the head / disc / port reducer / valve assembly onto the piping. As the tell-tale gauge was installed, the port reducer broke into two pieces. The break was at the machined reduction in the outer diameter. On inspection a fabrication flaw was found in the port reducer. The large end of the port reducer has an I.D. of 0.55 inches and the small end has an O.D. of 0.54 inches, machined down from the O.D. of 0.84 at the large end. The small O.D. section was specified to be 2.00 inches long. It was improperly machined approximately 2.63 inches long so that the 0.55 I.D. came within a very small distance of the 0.54 O.D. When the gauge was being hand tightened, the port reducer broke at this thin wall point. MTW reverted to the previous design and all port reducers were collected for investigation.

The licensee notified NRC Region 2 (J. Pelchat).