

Fact Finding Visit

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Event Reporting

ORPS: EM-SR-SRNS-HBLINE-2015-0002

NTS: NTS-SRSO-SRNS-HBLINE-2015-0002

On February 13, 2015 the HB-Line Facility reported the Loss of Tank NT-51 Agitation Results in Criticality Control Violation event into ORPS under reporting criteria:

- 3C(2) (SC1) A condition in which no documented controls are available to prevent an criticality accident. An accident has not occurred due to other, non- documented barriers or controls.
- 3C(4) (SC3) A deficiency in criticality safety analysis or degradation of a documented criticality control (or controls) such that adequate controls were not in place for a credible criticality accident scenario.

The Event Overview

On 1/7/15, HB-Line experienced a loss of power event that shut down the Variable Frequency Drive (VFD) which powers tank agitators. The facility restored power but did not reset the VFD and therefore did not recognize that power was not restored to the tank agitator motors.

On 2/3/15, NT-51 was sampled and sample results were not as expected. Operations were suspended and the cause of abnormal sample results was investigated.

On 2/6/15, it was determined that the VFD was in the “Stopped” position.

On 2/13/15, SRNS reported that transfers were made from HB-Line Tank NT-51 without agitation and that sampling for each transfer was performed without agitation.

Photos of Variable Frequency Drive Cabinet



Enforcement Process Timeline

01/07/15 - HB-Line Experiences Loss of Power

2/03/15 - Abnormal Tank Sample Results, Operations suspended, Start Issue Investigation.

02/13/15 – HB-Line declares ORPS Report for Transfers

05/05/15 – OE contacts EC for discussion during OE Annual Workshop

- OE is in event screening process and requests additional information.
- OE updated EPO/ECH documents available on website.

EPO - Decision to Investigate

"...For events or conditions involving one or more of the following characteristics resulting from DOE operations, the Office of Enforcement will typically issue a Notice of Investigation letter promptly:

...Inadvertent criticality, or loss of double contingency such that no credited controls are available to prevent criticality."

05/14/15 - NTS Report Submitted

- Phone conversations and documents (Fact Finding Report, RCA, EOCs, and completed/planned CAs) lead to teleconference discussion.

06/19/15 - Teleconference – Presentation of Event, Investigation, and Actions

- OE will evaluate information presented and conclude by end of month.

Enforcement Process Timeline

07/02/15 - Office of Enforcement called requesting a Fact Finding Visit.

EPO: Fact-Finding Visits

In some cases, the Office of Enforcement may wish to conduct a site visit to collect additional information **before deciding whether to initiate a formal investigation**. Such cases would typically involve a complex series of potential noncompliances, a delay in completing the contractor's investigation, or a related event that occurs during an ongoing enforcement investigation. Fact-finding visits are short, onsite data gathering efforts intended to facilitate a decision about whether to conduct a formal investigation.

08/24/15 thru 08/27/15 Office of Enforcement onsite for Fact Finding Visit

- OE will evaluate information presented and conclude within several weeks.
- Facility interprets OE's exit comments as outcome likely to be an Enforcement Letter.

Pre-Fact Finding Visit Activities

- Extensive request for program documents and procedures
 - Program Manuals/Implementing Procedures
 - Completed procedures and self-assessments
 - Fact Finding Reports, Root cause analysis, Extent of Condition Reviews
 - Issue Management files
- Requested Fourteen (14) Contractor Discussions
 - Identified needed information/personnel – Collaboratively with OE
 - OE requested 3 (5 max) persons per discussion
 - *Sr.Managers, Facility Managers, Program Managers, Operations Managers, Engineering Managers, Shift Managers, First Line Mangers, Training Managers, Operators, Criticality Engineers, Nuclear Safety Engineers, Systems Engineers, Procedure writers, Issue Analysts*
 - *EC provided pre-discussion briefings with all personnel*
- Requested a Facility Tour
 - Coordinated with Facility Operations

Conduct of Fact Finding Visit Discussions

OE Participants

- Steve Simonson (for Jon Thompson)
- Samina Shaikh
- Kevin Mattern
- Bob Wilson (representing EM-40 as Criticality SME)

Site: Participants

- DOE-SR Enforcement Officer
- DOE-SR Criticality Safety Engineer
- SRNS Enforcement Coordinator

OE provided a Management In-brief, Out-brief, and opportunities for Senior Management and Facility Management to provide their perspective on the event and response activities.

Conduct of Fact Finding Visit Discussions

- OE provided a brief introduction of OE and stated the purpose of each discussion.
- Discussions/questions were professional and used just culture principles.
- OE solicited at least one response from each invitee.
- Questions were related to:
 - documented program requirements
 - evidence of following the requirements
 - general safety culture/safety conscience work environment topics
- OE was prepared with question lists and discussions demonstrated a working knowledge of the SRNS's documents and procedures.
- OE thanked each group at the conclusion of each discussion.

Enforcement Process Timeline

01/07/15 - HB-Line Experiences Loss of Power

02/13/15 - HB-Line declares ORPS Report for Transfers

05/05/15 - OE contacts EC for discussion during OE Annual Workshop

05/14/15 - NTS Report Submitted

06/19/15 - Teleconference – Presentation of Event, Investigation, and Actions

07/02/15 - Office of Enforcement called requesting a Fact Finding Visit.

08/24/15 thru 08/27/15 - Office of Enforcement onsite Fact Finding Visit

OE will evaluate information presented and conclude within several weeks.

09/08/15 - HB-Line declares ORPS Report for Phase III TSR/NCSE Violation

09/21/15 – Office of Enforcement calls to inform they will need to understand the 09/08/15 event before concluding on the 2/13/15 event.

10/14/15 – Teleconference – Presentation of Event, Investigation, and Actions

Lessons Learned

1. Issue NTS Report in a Timely Manner.

OE may need additional information (beyond what is provided in the ORPS Report) to perform their screening. Prompt NTS reporting may include event details that provide that information in a timely manner.

2. Consider Contacting OE for Significant Events Reported

The ORPS and NTS Reports provide event information that OE uses in performing their screening function. The detail in these reports may not convey information to fully understand the significance of the event. Consider contacting OE to offer to provide that information.

3. Include Safety Culture/Safety Conscience Work Environment Discussions in Pre-Discussion Briefings

OE asked a number of questions related to the organization's safety culture/safety conscience work environment. Ensure this topic is covered with each discussion participant.