

November 13, 2013

NOTE

FROM: Christopher Ryder, Licensing Project Manager

SUBJECT: CONFERENCE CALL: FOLLOW-UP QUESTIONS REGARDING PART 21
INFORMATION COLLECTION

Date and Time

October 18, 2013, at 1:00 (eastern)

Participants

<u>NRC</u>	<u>Westinghouse</u>
Christopher Ryder	Nancy Parr
Sabrina Attack	John Watkins

Background

The NRC staff had been visiting the major fuel cycle facilities to compile background information for informing the staff's effort in developing the regulatory basis for rulemaking to revise Title 10 of the *Code of Federal Regulations* (10CFR), Part 21. The Westinghouse Columbia site had been visited on July 17, 2013. The NRC staff had additional follow-up questions to aid the staff in drawing conclusions from the site visits. The licensee had been sent the questions in advance to prepare for the call.

IROFS

- Total Number of items relied on for safety (IROFS)
- Active Engineered IROFS
- Passive Engineered IROFS
- Administrative IROFS
- Enhanced Administrative IROFS
- Sole IROFS

Substantial Safety Hazard (SSH)

- Do you consider a condition that could result in a worker fatality to be a SSH?
- Do you consider a condition that could result in an onsite release of UF6 or chemicals produced from licensed material to be a SSH?
- Do you consider a condition that could result in an offsite release of UF6 or chemicals produced from licensed material to be a SSH?
- Do you consider a condition that could result in a failure of the criticality monitoring system to be a SSH?
- Do you consider an inadvertent criticality to be a substantial safety hazard?

Basic Components

- Do you have any basic components (excluding reactor fuel assemblies)?
- Are basic components limited to sole IROFS?

- Are there any items that you do not consider basic components, for which you would evaluate deviations for potential Part 21 reportability?

Part 21 Reporting

- Made any reports in the past 10 years?
- Made any evaluations that were not reportable in the past 10 years?

Operating Experience

- Do you have a formal operating experience program?
- Do you review event reports for applicability to your facility?
- Do you obtain valuable information from the biweekly NEI call that you do not obtain from the NRC event reporting system?

Discussion

The licensee stated that they counted about 2329 listed IROFS. The number is actually greater than this because some IROFS were counted only once, when it is duplicated on multiple production lines. For example, the same high level interlock that exists on 5 production lines would only be counted once. The number of listed IROFS in each of the stated groups is as follows:

<u>Type of IROFS</u>	<u>Listed</u>
Active Engineered	325
Passive Engineered	931
Administrative.....	958
Enhanced Administrative	115
Sole	0

During the discussion, Westinghouse identified that at their facility, a SSH is not viewed from the perspective of a *fatality*. A SSH is defined as a loss of a safety function to the extent that there is a major reduction in safety. Regarding radiation, the Columbia site has only low enriched uranium. Only a criticality accident could result in a lethal amount of radiation, and sole IROFS are not permitted as criticality controls. Regarding chemical exposures to materials comingled with Special Nuclear Material (SNM), the main chemical of concern is uranium hexafluoride (UF₆).

When Part 21 was developed, Westinghouse understood its applicability to include procured items where a manufacturing defect could result in a SSH as defined by radiological health and safety criteria. There were no specific chemical criteria. The licensee does not have a condition that would result in a high consequence event to the offsite public. A release of UF₆ is unlikely to be a hazard to the public.

Criticality controls are not considered basic components because Westinghouse does not have sole IROFS that would meet their definition of a basic component. The radiation from a criticality accident is considered an SSH.

From a manufacturing perspective, the licensee does not have basic components. The shipping overpacks for the UF₆ cylinders may be basic components for shipping, but the licensee stated that they would have to verify this statement (which they later did).

When asked if there are items that are not considered basic components, but for which deviations would be evaluated for potential Part 21 reportability, the licensee stated that all Corrective Action Process System (CAPs) issues are screened for potential Part 21 evaluation. The licensee could recall an instance that occurred during testing in calendar year 2001. A fault was discovered in a programmable logic control (PLC), involving a common mode failure and valves that did not close. An evaluation was performed to determine if a SSH existed. A Part 21 report was not submitted. In calendar year 2003, the NRC staff issued a bulletin regarding Hunt valves after receiving a Part 21 notification from another licensee. Westinghouse had no recollection of submitting a Part 21 report on the valves but did evaluate and address deficiencies identified in the IN. The licensee also stated that it conservatively evaluates items with procurement controls (identified in Procedure RA-120-20).

Westinghouse manages operating experience thorough the CAPS. The Columbia site obtains information on operating experience from other Westinghouse facilities located both in the United States and in other countries. Westinghouse has a staffer in Washington who routinely surveys the NRC's Agencywide Documents Access and Management System (ADAMS) for relevant information, then sends the information to Westinghouse facilities. Westinghouse also routinely obtains information on global and generic information from the Nuclear Energy Institute (NEI) during the biweekly conference calls. Westinghouse identified that the process for reviewing and addressing operating experience is proceduralized in the CAPs procedure, but there was not yet a formal requirement for the EH&S function to formally gather OE for use at the site.

The licensee stated that when reviewing NRC event reports required under Part 70, there is a potential for a lack of detail. For additional information, detailed questions are asked to other licensees and to NEI to obtain any specific information needed to evaluate the applicability of the issue to Westinghouse activities.

As part of evaluating the applicability of a recent Part 21 report received from the MOX Fuel Fabrication Facility, the NRC staff asked if Westinghouse credits certain Heating, Ventilation, and Air Conditioning (HVAC) components as IROFS, and if CFFF uses Flanders for the supply of certain HVAC items.

Follow-Up Actions

- Westinghouse agreed to inform the NRC staff as to whether or not the overpacks of the UF₆ cylinders are basic components. Later, the licensee responded that they consider the UX-30 over pack to be a basic component.
- Westinghouse agreed to inform the NRC if they use Flanders for ventilation system products. Later, the licensee responded that they use Flanders products such as Process Filter Houses with dampers, HEPA filters, Pre-filters, and Intermediate filters