

Mendiola, Doris

Subject: FW: Westinghouse Comments on Evaluation of Acute Chemical Exposure Events - 80 FR 21274 (Docket NRC-2015-0044)
Attachments: Westinghouse Comments - NRC-2015-0044.pdf

From: Parr, Nancy B. [mailto:parrnb@westinghouse.com]
Sent: Tuesday, June 30, 2015 4:47 PM
To: Bladey, Cindy
Cc: Bailey, Marissa; Johnson, Robert; Diaz, Marilyn; Ryder, Christopher
Subject: [External_Sender] Westinghouse Comments on Evaluation of Acute Chemical Exposure Events - 80 FR 21274 (Docket NRC-2015-0044)

Dear Ms. Bladey,

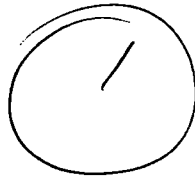
Please find the attached Westinghouse comment submittal letter, "*Clarifications to Supplemental Backfit Information on Guidance for Evaluation of Acute Chemical Exposures and Proposed Quantitative Standards (80 FR 21274) [Docket NRC-2015-0044]*."

Please contact me if you have any questions or concerns.

With very best regards,

Nancy Blair Parr
Licensing Manager
(803) 647-3338

4/17/2015
80 FR 21274



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Our ref: LTR-RAC-15-36

June 30, 2015

Subject: Clarifications to Supplemental Backfit Information on Guidance for Evaluation of Acute Chemical Exposures and Proposed Quantitative Standards (80 FR 21274) [Docket NRC-2015-0044]

Dear Ms. Bladey,

Westinghouse Electric Company LLC (Westinghouse) appreciates the opportunity to comment on the Nuclear Regulatory Commission's (NRC) supplemental backfit information¹ associated with the draft Interim Staff Guidance (ISG) on acute chemical exposures and proposed quantitative standards.² Westinghouse fully endorses the comments submitted by the Nuclear Energy Institute (NEI) on June 30, 2015.³ Westinghouse would also like to clarify information pertaining to an exposure event in 2007 which we believe was incorrectly characterized in the Federal Register Notice, discuss the lessons learned from the event, and review Westinghouse's relevant operating experience since that time.

The NRC staff has acknowledged in multiple forums that new quantitative standards would not provide a safety benefit over current industry practices. Therefore we do not believe the additional regulatory burden is justified, nor are the dermal and ocular exposure activities consistent with the NRC's Principles of Good Regulation and its current efforts to limit the Cumulative Effects of Regulation. In fact, Westinghouse's view is that this initiative is not only unnecessary, but potentially counterproductive to safe operations of our facility.

Clarification to information pertaining to the exposure event in 2007

On February 26, 2007, a Westinghouse employee was exposed to hydrogen flouride (HF) on the right forearm. A short time after the exposure to HF, the employee noticed a blistering above the location covered by chemically resistant materials on his right forearm. The worker was treated onsite with calcium gluconate. Then the worker was transported to a local hospital, treated, and released the next day. Approximately two months after the exposure, the employee's forearm had a slight scar. The employee does not have long-lasting health effects and returned to work at the Westinghouse facility two days after the event. The affected employee continues to work at the Westinghouse facility, now in a supervisory role. Therefore, based on the definitions in 70.61(b)(4)(i) and 70.61(c)(4)(i), respectively, Westinghouse believes that the affected employee's exposure cannot be classified as a high or intermediate consequence event.

Westinghouse completed a root cause analysis (RCA) on June 27, 2007. In the NRC inspection report,⁴ NRC concurred with the RCA and contributing factors. The NRC also identified six apparent violations

¹ 80 Federal Register 21274

² 80 Federal Register 11692

³ NEI June 30, 2015 letter from Janet Schlueter (NEI) to Cindy Bladey (NRC)

⁴ NRC Inspection Report 70-1151/2007-002 (ML071980047)

(APVs), which were all determined to be Severity Level IV violations⁵, including failure to wear adequate personal protective equipment (PPE).

Table 1 of the supplemental backfit information published in the Federal Register notes that the Westinghouse exposure event is an intermediate or high consequence event.⁶ However, the NRC Inspection Report 70-1151/2007-002 states, in part:

A medical consultant was hired by the NRC to evaluate the severity of the HF acid burn to a worker.... The burn was <1% body surface area (BSA) and the worker sustained the chemical injury while working with uranium hexafluoride (UF₆) and HF (49% HF solution) in the fuel manufacturing conversion area. According to the medical consultant, severe burns occur after exposure to concentrated (i.e., 50% or stronger solution) HF acid to 1% or more BSA, exposure to HF acid of any concentration to 5% or more BSA, or inhalation of HF acid fumes from a 60% or stronger solution. The [medical] consultant believes that the HF burn did not endanger the life of the worker.

With respect to the impact on the worker, the performance based regulations in 70.61(b)(4)(i) state that a high consequence event "could endanger the life of a worker"; and 70.61(c)(4)(i) states that an intermediate consequence "could lead to irreversible or other serious, long-lasting health effects". Therefore, based on the NRC's medical consultant's conclusion in the inspection report and the lack of long-lasting health effects on the employee, it is unclear how the exposure event can be classified as an intermediate or high consequence event.

Regarding the Integrated Safety Analysis (ISA) Summary review, the NRC inspection report notes "[t]he NRC staff determined that the licensee adequately considered the consequences to a worker exposed to HF through inhalation, ingestion, and dermal routes."⁷ The staff's conclusion that the Westinghouse ISA Summary adequately considered HF dermal exposures supports the industry's position that the NRC staff's re-interpretation of Subpart H represents an unanalyzed backfit.

Lessons learned from the exposure event in 2007

As an immediate action in response to the February 26, 2007 exposure event, Westinghouse trained on and required the use of shoulder length chemically resistant gloves. The immediate action was completed for all shifts on February 28, 2007.⁸ Subsequently, the NRC inspectors found this new PPE requirement adequately addressed the immediate chemical safety concern.⁹ Westinghouse also re-assessed the PPE and training requirements for all chemical operations, and enhancements were made as necessary.

In addition to corrective actions for the first exposure event in the NRC Information Notice (IN) 2007-22, which occurred at a the Columbia Fuel Fabrication Facility (CFFF), Westinghouse considered the second event (which occurred at a different licensee's facility) from IN 2007-22 as operating experience and verified that appropriate measures were already in place to avoid similar problems.

Westinghouse's operating history since the exposure event in 2007

Westinghouse acknowledged the Notice of Violations (NOVs) associated with the 2007 exposure event and put corrective actions in place to reduce the potential for worker exposure.

⁵ NRC Notice of Violation (NRC Inspection Report No. 70-1151/2007-002) (ML072620314)

⁶ Table 1, 80 Federal Register 21276

⁷ NRC Inspection Report 70-1151/2007-002 (ML071980047), executive summary

⁸ Westinghouse letter LTR-RAC-07-78, "Reply to a Notice of Violation"

⁹ NRC Inspection Report 70-1151/2007-002 (ML071980047), HF event response

Since the exposure event, Westinghouse has worked almost 25 million hours at the CFFF. During this period, there have been a total of 5 Occupational Safety and Health Administration (OSHA) recordable accidents involving chemicals produced from or comingled with radioactive materials. Generally, a recordable injury or illness under OSHA is one that requires medical treatment beyond first aid. None of these events involved Uranium Hexafluoride/Hydrogen Flouride exposures which were the subject of the NRC 2007 Information Notice, none met NRC high or intermediate consequence criteria, and none resulted in lost time from work. Westinghouse strives to operate the CFFF in an incident-free manner by continually learning and improving, and our safety record in this area is a clear demonstration of our effectiveness. The fact that our performance is good, but not perfect, does not mean that the regulatory framework is somehow flawed or that new regulatory interpretations are necessary to further improve safety. We believe we far exceed the NRC's standard of reasonable assurance of adequate protection and that additional regulatory requirements are not only unnecessary, but not in keeping with the NRC's Principles of Good Regulation.

Based on the Westinghouse safe operating history and the emphasis the nuclear industry places on safety and safety culture, devoting additional resources to designate items such as OSHA regulated lock-out/tag-out (LOTO) procedures, safety and eye-wash station inspections, and PPE as NRC regulated Items Relied On For Safety (IROFS) does not make sense. While NRC does not tell us which controls to designate as IROFS, in situations where there are line break, equipment clean-out or breakdown maintenance activities, workers count on LOTO and PPE to assure their safety. From our evaluation of the exposure events at the CFFF, they still would have occurred even if the OSHA controls were designated as IROFS.

Additionally, our workers have expressed concerns about implementing OSHA controls as IROFS. A few of their comments are listed below:

- *"So, in some areas my PPE would be an IROFS when I perform certain tasks but in other areas, it is not (for the same chemical). This does not make sense to me. And, the same gloves that I get out of the Storeroom are an IROFS in one situation but not in another."*
- *"The listing of IROFS in my area is already 232 pages long. If we make things like PPE and LOTO procedures IROFS, then there is even more paperwork that must be done before I can make a change."*
- *"We will need another records storage room if we designate the many weekly safety shower and eyewash stations as IROFS. Instead of keeping paper copies of those work orders for 3 months, they would need to be kept for 3 years."*
- *"The different OSHA and NRC rules for PPE would be confusing."*

In closing, we hope we have provided you with a glimpse into why Westinghouse's view is that this initiative is not only unnecessary, but potentially counterproductive to safe operations of our facility. Should you have any questions or require additional information, please feel free to contact me at (803) 647-3338 or at parrnb@westinghouse.com.

Sincerely,

Nancy Blair Parr

Nancy Blair Parr, Manager
Licensing