

## **SUMMARY OF FACILITY CHANGES DURING 2014 WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY**

By letter dated January 23, 2015, the Westinghouse Electric Company, LLC (Westinghouse) submitted the annual report of the changes that had been made to the Columbia Fuel Fabrication Facility (Ref. 1). The submittal documented 588 records of changes that were made without prior U.S. Nuclear Regulatory Commission (NRC) approval in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 70.72. The staff at the NRC Headquarters evaluated each change record to determine the following:

- Compliance with 10 CFR 70.72.
- Changes that NRC Region II inspectors may want to consider during inspections.
- Characterize the changes.

### Compliance With 10 CFR 70.72

The Headquarters staff agree with Westinghouse that all of the changes that are documented in the facility change report (Ref. 1) are in accordance with 10 CFR 70.72. Therefore, no prior NRC approval was needed for the reported facility changes.

### Changes For Consideration by NRC Region II

See Enclosure 2.

### Characterization of Changes

The change records documented in the facility change report (Ref. 1) are categorized by the topics to follow. The relative frequency of the change types are illustrated in Figure 1. From time to time, a change could be placed in several categories.

Replace degraded components. Changes were made in components because they were worn, corroded, or leaking. Modifications were usually made to prevent such degradation from reoccurring.

Replace obsolete components and software. Items were no longer made by a vendor. As the service life of components was reached, and newer components became available, older components were replaced. In some cases, the replacement components had improved reliability. Changes in this category were made because the older components were no longer made, not to specifically increase reliability.

Replace existing components with more reliable components. The replacements were often a like-for-like replacement using current programmable logic controllers or the latest versions of software. Modifications were made to systems, such as in wiring, reducing vibration, and obtaining components made with materials that have more compatibility with process chemicals. The changes were made to improve reliability, regardless of whether or not the components were no longer sold by vendors.

Improve performance of systems. Improvements to fire safety systems, the seismic response of equipment, add filters, modify piping to eliminate flanges (reduce leaks), improve item control, change grease type, improve electrical connections, improve frame supports, and improve interfacing of moving parts.

Remove unused components. Unused pipes, wires, and racks were removed to reduce clutter, and improve access to service components.

Improve the ergonomics of the work area. Changes eliminated unnecessary lifting. Controls with user-friendly designs were installed. Components were relocated or extensions were added to eliminate unnecessary reaching.

Reduce or eliminate non-radiological hazards. Most often, improvements were made in fire safety systems. Also, cables and hoses were moved to eliminate trip hazards. Safety guards were placed on components such that, when components were active, workers would not bump against such components while walking.

Reduce radiation exposure/contamination hazards. Most often, backflow preventers were installed to keep special nuclear material in intended locations.

Modify systems to improve fuel pellets, rods, and assemblies. Brackets of rod handling systems were modified to avoid damaging rods, depositing paint on rods, or scratching oxide end-coating. Structures that could introduce foreign materials were modified.

Modify components to meet regulatory requirement and commitments. Most changes were made per a commitment to complete the second nuclear criticality safety improvement program.

Other changes. Other changes included, but are not limited to remodeling rooms, installing appliances, relocating/installing alarms, relocating/installing announcement speakers, installing racks/cabinets, installing tables, refurbishing floors, relocating walls, installing/removing temporary equipment (e.g., generators), replacing fences, and revising plant drawings.

## References

1. Letter from N. Parr, Westinghouse Electric Company, LLC, "Westinghouse 10 CFR 70.72 Facility Change Report", January 23, 2015. ADAMS accession number ML15026A026.

