

U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
REGION IV

Report No. 99900716/80-01

Program No. 51400

Company: Ruskin Manufacturing Company  
P. O. Box 129  
Grandview, Missouri 64030

Inspection at: Grandview, Missouri

Inspection Conducted: May 13, 1980

Inspector: R. E. Oller 5-21-80  
R. E. Oller, Contractor Inspector  
Component Section II  
Vendor Inspection Branch  
Date

Approved by: D. M. Hunnicutt 5/22/80  
D. M. Hunnicutt, Chief  
Component Section II  
Vendor Inspection Branch  
Date

Summary

Special Inspection on May 13, 1980 (99900716/80-01)

Areas Inspected: Implementation of 10 CFR Part 21/50.55(e) and other NRC requirements including assessment of the cause, corrective action and generic considerations relative to the deficiency involving two (2) closure problems in NIBD23 fire dampers at Bellefonte Units 1 and 2, Sequoyah Units 1 and 2, Watts Bar Units 1 and 2 and other nuclear sites. The inspection involved eight (8) inspector-hours on site.

Results: In the area inspected, no deviations or unresolved items were identified. The two (2) Ruskin Part 21 Reports meet the requirements of 10 CFR Part 21.

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DETAILS SECTIONA. Persons Contacted

- \*R. Van Bacelaere, Vice President Engineering
- T. Lasher, Project Manager
- R. Plettner, Vice President Sales
- \*F. Warkoski, QA Manager

\*Attended the exit meeting.

B. Preinspection Conference

A preinspection conference was held on May 13, 1980 with Messrs: Van Bacelaere, Plettner, and Warkoski. The NRC inspector defined the scope of the inspection as consisting of a followup on 10 CFR 50.55(e) construction deficiency reports and Ruskins 10 CFR Part 21 Reports with regard to the deficiency in the spring closure device in fire dampers and an additional problem of damper blade jaming in vertical units less than 9 inches high. Dampers having these problems are located at various nuclear power construction sites.

C. Reported 10 CFR 50.55(e)/Part 21 Reported Deficiency1. Deficiency Reported

Two (2) different problems, with the Ruskin NIBD 23 model fire damper, were reported to the NRC.

The first problem was reported by TVA for Sequoyah 1 and 2 and Watts Bar 1 and 2 on 2-27-80 as a 10 CFR 50.55(e) deficiency and by Ruskin in a 10 CFR Part 21 Report dated 1-21-80. The problem was that while cycle testing Ruskins vertical curtain type fire dampers (Model NIBD23) some of the negator type closure springs had slipped out of the spring-holding slot in the spring bracket. This was believed to be caused by the slot having opened excessively when the upper edge of the bracket was tack welded to the frame. The initial fix was identified in Ruskin's Part 21 Report dated 1-21-80. It consisted of plugging the narrow part of the slot with a #6 screw, lockwasher and nut to hold the spring in place.

Subsequent to the above report, it was found that some of the screws worked loose during shipment and the fix was inadequate. As a result a new fix using a "U" clamp to close the slot was initiated by Ruskin. This matter was reported to the NRC by Ruskin in a Part 21 Report dated 4-4-80 and by TVA in a 50.55(e) telephone report on 5-2-80 for Sequoyah 2, Watts Bar 1 and 2 and Bellefonte 1 and 2.

At approximately this same time a second problem was discovered with the closure of vertical dampers less than 9 inches high. On 3-25-80, Ruskin found that if the blade package is shifted allowing the leading edge of the bottom blade to be above the trailing edge, the blade package may jam when released. Ruskin's proposed fix was by use of a snap-in-strip, which when installed, holds the bottom blade in proper position to insure closure. This second problem and the fix were also described in the Ruskin Part 21 dated 4-4-80. Both the first and second problems were also reported by SNUPPS for Wolf Creek and Callaway 1 and 2 on 4-3-80.

2. Objectives

The objectives of this followup inspection were to ascertain that the reporting organization had implemented the requirements of 10 CFR Part 21 and had:

- a. Met the requirements for reporting the deficiencies.
- b. Performed an evaluation of the condition, including making an assessment of generic considerations.
- c. Assigned responsibility and implemented a plan of corrective action.

3. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA procedure No. P-139, Revision 0 dated August 3, 1979 "Reporting of Defects and Nonconformance, Part 21."
- b. Discussions with cognizant personnel regarding the two (2) Ruskin 10 CFR Part 21 Reports.
- c. Review of the Ruskin Part 21 Reports dated January 21, 1980, and April 4, 1980, to verify the following:
  - (1) The reporting requirements of 10 CFR Part 21 were met.
  - (2) The two (2) deficiencies were properly evaluated and an assessment of generic implications was made.
  - (3) Appropriate corrective action was implemented in a timely manner.
- d. Review of the following attachments to the Ruskin Part 21 Report dated January 21, 1980:
  - (1) NIBD23 Specification Sheet

- (2) Drawing No. 5398 "Vertical NIBD23 Spring Bracket Modification."
  - (3) Notification Form Letter to Power Plant Customers.
  - (4) Applicable Job List.
- e. Review of the following attachments to the Ruskin Part 21 Report dated April 4, 1980.
- (1) Drawing No. 5564 "Vertical NIBD23 Spring Bracket Modifications," approved on April 2, 1980.
  - (2) Drawing No. 5565 "Vertical NIBD23 (9" High and Less) Closure," Approved on April 2, 1980.
  - (3) List of Nuclear Power Plant customers.
  - (4) Notification form letter to Power Plant customer.
- f. Observation of a NIBD23 Model fire damper including the clamp modification for the spring bracket slot.
- g. Review of the following drawings related to the final fixes for the two (2) problems:
- (1) Drawing No. 5566 "Vertical NIBD23 Spring Bracket Clamp Installation Procedure", approved 4-2-80.
  - (2) Drawing No. 5567 "Snap-in strip Installation Procedure (vert. NIBD23) less than 9" high only."
  - (3) Drawing No. 5568 "Spring Bracket Clamp," approved 4-3-80.
  - (4) Drawing No. 5569 "Snap-in Strip," approved 4-3-80.

4. Findings

- a. Within this inspection no deviations or unresolved items were identified.
- b. Other Findings - Comments
  - (1) Discussions and review of the above documents established that the Ruskin 10 CFR Part 21 Reports dated January 21, 1980, and April 4, 1980, met the requirements of 10 CFR Part 21.

- (2) The two (2) deficiencies were properly evaluated, and generic considerations resulted in notification by Ruskin to their customers representing 14 nuclear power sites wherein the affected fire dampers were to be used.
- (3) The corrective action for the two (2) problems in the Model NIBD23 fire dampers is being implemented in a timely manner. The Ruskin management indicated that the modifications for the dampers in the SNUPPS/Calloway Unit 1 and Wolf Creek Unit are complete. Also Ruskin is in contact with their other customers, identified on the list attached to their Part 21 Report dated April 4, 1980, to make arrangements for modifying the balance of the affected fire dampers.
- (4) Ruskin management indicated their tentative preventive action will include redesign of the damper spring bracket slot to prevent spring detachment and revision of the bracket shape to prevent jamming of the blade package.
- (5) Ruskin management indicated they have factories in Kansas at Parsons, Great Bend and Palo, and a factory at Anaheim, California. Each factory manufactures different types of dampers.

D. Exit Interview

1. The inspector met with the persons denoted in paragraph A above, at the conclusion of the inspection on May 13, 1980.
2. The inspector indicated that Ruskins reporting of the two (2) deficiencies in the fire damper appeared to meet the requirements of 10 CFR Part 21, and no deviations or unresolved items were identified.
3. The Ruskin management indicated they had no questions related to the inspection.