



Public Service  
Company of Colorado  
P.O. Box 840  
Denver CO 80201-0840

A. Clegg Crawford  
Vice President  
Nuclear Operations

February 23, 1990  
Fort St. Vrain  
Unit No. 1  
P-90035

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555

Docket No. 50-267

SUBJECT: NRC Inspection  
Report 89-20

REFERENCE: 1) NRC Letter, Milhoan  
to Crawford dated  
10/23/89 (G-89369)  
2) PSC Letter, Crawford  
to U. S. NRC dated  
11/22/89 (P-89461)

Dear Sirs:

This letter is in response to the Notice of Violation received as a result of the inspection conducted by Messrs. R. E. Farrell and P. W. Michaud during the period September 1 through September 30, 1989 (Reference 1). This enhanced response, as documented below, is being submitted at the request of Mr. P. W. Michaud, Resident Inspector, to replace the response submitted November 22, 1989 (Reference 2).

Failure to Follow Procedure

The Fort St. Vrain Technical Specifications, Section 4.7.a, states, in part that "written procedures shall be established, implemented ..."

Procedure SOP-84-02, Issue 7, "Outside Auxiliary Boiler," states in Step 4.2.1.40.e) to "Slowly close V-84881."

Contrary to the above, on September 6, 1989, Valve V-84881 was not closed, which allowed steam to enter the service air system which then entered the "A" Instrument Air System.

This is a Severity Level IV violation. (Supplement I) (267/8920-01)

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1. The Reason For The Violation If Admitted:

The violation is admitted. The root cause of this event was insufficient attention to procedural details by Operations personnel. The operator was performing Non-Technical Specification surveillance procedure SR-OP-43-M on the outside auxiliary boiler (OAB). SR-OP-43-M checks the boiler protective trip setpoints and was being performed in preparation for placing the OAB in service to perform intermittent firing tests on the inside auxiliary boiler (IAB). The OAB was successfully fired but it tripped from approximately 60% load. The IAB was at approximately 20% load and tripped at the same time. After several unsuccessful attempts to restart the OAB, it was left shutdown until troubleshooting could be performed and the IAB was returned to service. When personnel shut down the OAB for troubleshooting, it was expected to be of short duration. Therefore, V-84855 was left open, contrary to the complete shutdown instructions in the procedure.

The valve lineup error was compounded by multiple equipment malfunctions. It was determined that steam from the IAB had been entering the service air system (reference figure 1) via the open super heater isolation valve (V-84839) on the OAB, which was supplying steam through the open steam atomizing valve (V-84855), then through a failed check valve (V-84882), and finally through an open service air atomizing valve (V-84881). Once the (150 psig) steam entered the service air header (90 psig) it continued on to the normal service air header users. The largest user is the sewage pond. The temperature in this line was increased by the steam sufficient to cause a failure of the PVC piping near the chemical building. Operations personnel also noted that the service air piping near the "A" instrument air dryer was very hot. The heat (reference figure 1) extended through FCV 8217 into "A" reactor and "A" turbine building instrument air headers with the "A" turbine building header being the hottest. FCV 8217 is normally closed and is opened only when abnormally low pressures are detected in the "A" instrument air header. FCV 8217 and its bypass V-8229 were closed when checked which indicated leakage through one or both valves.

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2. The Corrective Steps Which Have been Taken and the Results Achieved:

The result of this steam and moisture in the "A" Instrument Air System was observed by the control room operators as malfunctioning instruments on the helium circulator auxiliaries. Manual control was taken on these instruments, and the "B" Helium Circulator was shut down in response to these instrument malfunctions.

Available operations shift personnel were dispatched to blow down service air and instrument air lines in the turbine and reactor buildings.

A plan was formulated to blow down the "A" Instrument Air Header and each instrument supplied by it from highest to lowest elevation. This was performed over a 2-day period, with a number of instruments on levels 1 and 2 of the reactor building and in the outside boiler room found having water in the air line. Each of these instruments was blown down, calibrated, and returned to service.

V-84882 was cut out of the line and replaced due to gross leakage. FCV-8217 was disassembled and inspected. The valve was dirty and not seating correctly. It was cleaned and tested for leak tightness. V-8229 was disassembled and blue checked which verified the proper seating of the disc with the seating surface.

Personnel involved in this event were counseled to consider the significance of shutting equipment down temporarily for troubleshooting. Where appropriate, normal shutdown should always be followed.

A program for periodically blowing down the air lines was established as a precautionary measure. The latest blow down was completed on 1/22/90. No moisture was present in the system.

3. The Corrective Steps Which Will Be Taken To Avoid Further Violations:

For the most part, the OAB will not be used during defueling and no further corrective actions for either specific OAB procedure enhancements or OAB operator training are warranted. PSC will enhance our General Employee Training (GET) Program to include a module to emphasize the necessity for procedural compliance.

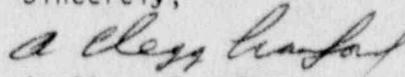
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4. The Date When Full Compliance Will Be Achieved:

Full compliance was achieved per the actions noted in Item No. 2 above on October 10, 1989. The GET program section that addresses the FSV procedure system has been revised. Since the inspection, this portion of the lesson plan has been given increased emphasis by the instructors.

Should you have any further questions, please contact Mr. M. H. Holmes at (303) 480-6960.

Sincerely,



A. Clegg Crawford  
Vice President  
Nuclear Operations

ACC/MED/km

cc: Regional Administer, Region IV  
ATTN: Mr. T. F. Westerman, Chief  
Projects Section B

Mr. Robert E. Farrell  
Senior Resident Inspector  
Fort St. Vrain

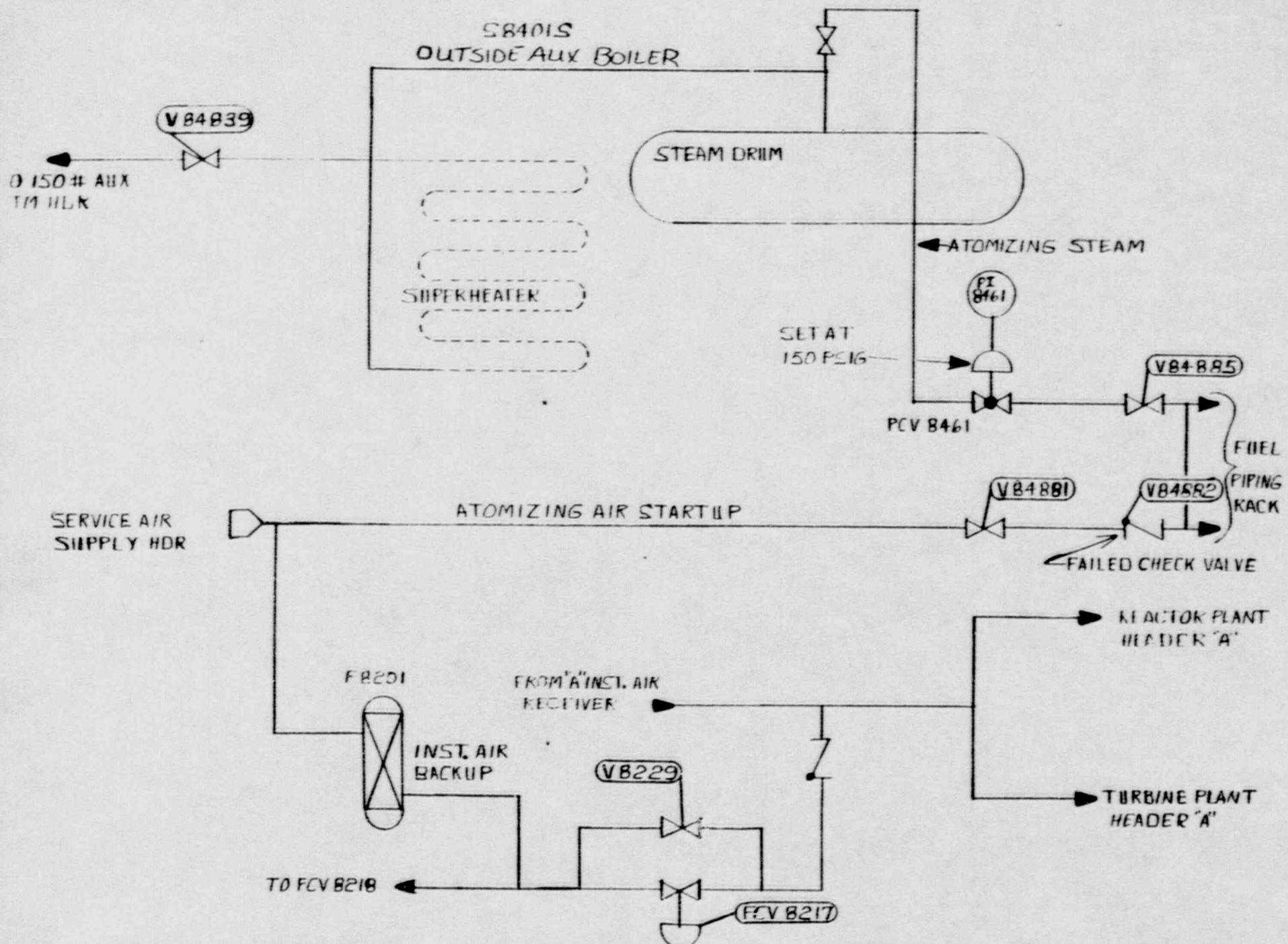


FIGURE 1