



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA STREET, N.W., SUITE 2800
 ATLANTA, GEORGIA 30333-0189

October 17, 1996

MEMORANDUM TO: C. Casto, Chief
 Engineering Branch, DRS

FROM: R. Schin *R. Schin*
 Reactor Inspector, DRS

SUBJECT: CRYSTAL RIVER NUCLEAR PLANT: ALLEGED COVERUP OF FUEL
 HANDLING INCIDENT (CASE NO. 2-96-033/RII-96-A-0177)

I reviewed the OI transcripts of interviews with Crystal River personnel to determine if the explanations given by the interviewees were credible; to identify any safety concerns that may have been expressed by the individuals; and to identify issues that may be worthy of RII inspection along with the IPAP recommendation for further inspection of fuel handling.

1. Credibility

In my opinion, explanations given by the interviewees were credible, with two exceptions:

- a. There were apparently conflicting statements with respect to the frequency / number of fuel handling underloads during an outage.
 - Mr. Jones stated on p. 11, line 1: "...an underload condition is something we frequently see and it represents the element contacting something. And typically it's contacting another fuel element."
 - Mr. Weaver stated on P. 27, line 8: "... during a normal refueling my estimate is that you get an underload 5200 times on different assemblies."
 - However: Mr. Culver stated on P. 20, line 21: "We had very few hang-ups. And, in fact, the thing I talked about where one fuel assembly hits the edge of another, I don't recall that happening at all in refuel ten. It may have once or twice, whereas normally it happens a lot after refueling."
- b. There were apparently conflicting statements with respect to the fuel handling mast underload cutoff setpoint and consequent potential for fuel or control rod damage:
 - Mr. Atkinson stated on p. 15, line 15: "...it would apply no more than 600 pounds pressure before the cutoffs quit moving the mast downward..."
 - However: Mr. Weaver stated on p. 13, line 17: "The limits that we have to prevent any damage to the fuel is really for

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Refer to R 11

these girth footstraps. And that limit is about 500 pounds, but we set our bridge to about 350 pounds so we won't meet that limit."

Also: Mr. Culver stated on p. 18, line 9: "So you're looking at - providing they had it in the heavy switch position - 300 pounds that would have been applied to that rod. Well, I confirmed again today to make sure I was right, with Dennis Baumgartner, and he said that a control rod mast when you're inserting a rod in the part of the weight of the mast is set on the rod is in the range of 200 and 250. So we're looking at 50 pounds difference. Not a significant amount."

2. Safety Concerns

There were some safety concerns raised by the interviewees:

a. Ms. Smith stated on p. 9, line 23: "...I did just find something out this morning, that I had heard that one of the non-licensed operators had found a valve mispositioned sometime recently and they just restored it to where it was going and did not report it because they were afraid that management was going to blame them for it."

b. Ms. Smith stated on p. 11, line 2: "...I have heard that it has happened before in the past (a fuel assembly being lowered on top of another fuel assembly)."

Also, Mr. Atkinson stated on p. 17, line: "...there are probably shift supervisors and above now that say, well, this has happened before. And I can't prove it. I don't know of it happening. But they say it has. (lowering a fuel assembly onto another)

c. Mr. Weaver stated on p. 24, line 15: "And we didn't have a video camera (to see the fuel handling underwater)." We tried to buy one last time and our management ... didn't buy the camera because we didn't have the funds to do it."

Also, Mr. Weaver stated on p. 26, line 1: "...without the camera, that is a very hard thing (for the refueling supervisor) to determine (that the fuel assembly being lowered is properly aligned underwater so as to not hit other fuel)."

3. Other Fuel Handling Issues That May Warrant Inspection

a. Mr. Weaver stated on p. 26, line 4: "The procedure said that he (the refueling supervisor) should verify it, not that he must (the underwater alignment of fuel being lowered into the core). You know, it's usually 'must' is a requirement; procedure violation 'should' is a recommendation."

Are procedure requirements and compliance in this area adequate?

- b. Mr. Culver stated on p. 25, line 3: "... (procedure FP-203)... section 3.1.3, the refueling log, it gives you an idea of the type of things that should, and it is a should and not a shall, that should be included in step 3.1.3.2, which include date, names of refueling personnel, fuel assemblies moved, final location of fuel assemblies, transfer carriage running times, causes of delays in moving fuel, and changes to refueling procedures. It does not specifically call out exact things that should be recorded. It is not considered quality documentation..."

Are procedure requirements and compliance in this area adequate?

- c. Mr. de Montfort stated on p. 8, line 17: "... a bigger picture, which I now see, is the number of errors and the safeguards that we had in place, which had to break down ... And we have a lot of safeguards: the tag board, the spotters, repeating of the fuel location, the move sheets. ... all those had to break down at the same time."

Are procedure requirements and compliance in this area adequate? For example, a previous event at St. Lucie revealed deficiencies in the required review and approval of move sheets and changes to move sheets, and quality status of move sheets. Also, St. Lucie procedures and practices for refueling supervisor duties, including fuel movement verification, did not implement TS requirements. At Crystal River, are fuel handling underload/overload setpoints correct and are they overly relied upon?



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 OFFICE OF INVESTIGATIONS FIELD OFFICE, REGION II
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 ATLANTA, GEORGIA 30323

December 4, 1996

MEMORANDUM TO: Robert P. Schin, Reactor Inspector
 Division of Reactor Safety

FROM: William J. McNulty, Director
 Office of Investigations Field Office, Region II

SUBJECT: CRYSTAL RIVER NUCLEAR PLANT: ALLEGED COVERUP OF
 FUEL HANDLING INCIDENT (CASE NO. 2-96-033/RII-96-A-C177)

Thank you for your prompt review of the six transcripts provided in our October 3, 1996 memorandum. Although there was no concern about fuel assembly damage, we need to know if there was a regulatory requirement for the incident to be reported to the NRC and if so, what is the appropriate regulatory cite.

12/10/96 REPLY

*BASED ON THE FACTS OF THIS EVENT AS I AND
 THE ACTING SENIOR RESIDENT INSPECTOR (TODD LAWLER)
 UNDERSTAND THEM, THERE IS NO REGULATORY
 REQUIREMENT FOR THE LICENSEE TO REPORT THE
 INCIDENT TO THE NRC*

R. Schin

CC: C. CASTO

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