

BEFORE THE FACT FINDING TASK FORCE
OF THE NUCLEAR REGULATORY COMMISSION

- - - - -

Re:

Davis-Besse event :

of June 9, 1985 :

- - - - -

INTERVIEW OF WALT ROGERS

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Interview of WALT ROGERS by the Nuclear
Regulatory Commission Fact Finding Task Force,
taken before me, Celeste C. Dawley, a Registered
Professional Reporter and Notary Public in and for
the State of Ohio, at the Site Emergency Operations
Center, Davis-Besse Nuclear Plant, Oak Harbor, Ohio,
on Thursday, June 21, 1985, commencing at 5:30
o'clock p.m.

- - - - -

MEMBERS OF THE TEAM:

J. T. Beard

Ernie Rossi

- - - - -

ACE FEDERAL REPORTERS INC.
(202) 347-3700

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1 MR. ROSSI: This is a second interview
2 with Walt Rogers, the senior resident inspector. He
3 had asked to talk with us again because he had some
4 additional things he wanted to tell us and, as I
5 understand it, some items to put into the record, so
6 at this point I will turn it over to you, Walt.

7 MR. ROGERS: Thank you. I think the main
8 point was that there were some questions asked of me
9 that I deferred to say I would go back and look at
10 the records or at least you could refer to the
11 records and I have done that.

12 There was a specific question Mr. Lanning
13 was making of whether there was a requirement for a
14 third auxiliary feedpump or startup feedpump, some
15 type of pump, and yes, there is a requirement,
16 specifically, it is part of license amendment No. 83
17 dated January 8, 1985, signed by Mr. Al De Agazio.

18 MR. BEARD: Say the date again. I didn't
19 get it jotted down..

20 MR. ROGERS: January 8, 1985, was the date
21 in which the cover letter is from Mr. De Agazio to
22 Mr. Crouse, and I would like to see that the team
23 gets this and present this to you.

24 One particular item in here of this

1 amendment is that No. 3, that Toledo Edison will
2 install a startup feedpump, associate piping, and
3 valves to remove the hazards to the auxiliary
4 feedpumps before commencing Cycle 6. The licensee
5 is in Cycle 5 at this point in time.

6 MR. BEARD: Walt, while we are on this
7 subject, is there a safety evaluation report
8 attached to this amendment?

9 MR. ROGERS: Yes, there is a safety
10 evaluation report in there and it also references a
11 licensee submittal of November 12, 1984, and I also
12 have a copy of that. That shows the application for
13 amendment with the safety evaluation attached by the
14 licensee in it.

15 MR. BEARD: I have both of these
16 identified. We want to have things numbered.

17 MR. ROSSI: Wayne Lanning will take care
18 of these.

19 MR. LANNING: The license amendment you
20 referred to, Mr. Rogers, is Amendment No. 83, this
21 document?

22 MR. ROGERS: Yes.

23 MR. LANING: We will mark that as
24 Exhibit 1.

1 MR. BEARD: Get to the next one. This one,
2 excuse me for asking you to repeat, this is the
3 licensee submittal related to Amendment No. 83?

4 MR. ROGERS: Yes.

5 MR. ROSSI: That only requires them to --

6 MR. ROGERS: Install a startup feedpump.

7 MR. ROSSI: A new startup feedpump?

8 MR. ROGERS: Yes.

9 MR. BEARD: That license does not address
10 the question of the electric nonsafety related
11 startup feedpump they have presently in operation?

12 MR. ROGERS: No, it does not. From
13 reading the correspondence, I think it is pretty
14 much inferred that the reason for the new startup
15 feedpump is to protect the two auxiliary feedpumps
16 that are now presently in the station from the
17 startup feedpump that is actually installed now
18 because of the hazard from a high-energy break.

19 MR. BEARD: Is it your understanding then
20 that the implication is that the present startup
21 feedpump would be removed?

22 MR. ROGERS: I don't know whether it would
23 be removed as much as whether it would be taken out
24 of service.

1 MR. BEARD: You mean like permanently
2 valved out?

3 MR. ROGERS: At least the suction valves
4 and discharge valves would be shut. Whether it
5 would be capable of actually operating at some point
6 in the future, I don't know. It would depend upon
7 how the licensee was intending to actually power up
8 that pump; whether they were planning on using the
9 old power feeds for the new pump, the old power
10 feeds for the old startup feedpump to be used for
11 the new startup feedpump. The actual condition of
12 the new startup feedpump I can't speak of with
13 complete certainty.

14 MR. ROSSI: Does it address the capacity
15 for the new startup feedpump?

16 MR. ROGERS: Yes, it does. In the actual
17 words --

18 MR. BEARD: You are referring to the
19 license amendment document itself?

20 MR. ROGERS: Yes. The new system should
21 have sufficient flow capacity to remove the decay
22 heat from at least one steam generator following a
23 design basis accidents.

24 MR. BEARD: So would you interpret that to

1 a hundred percent of the decay heat removal
2 requirements?

3 MR. ROGERS: As stated here, I believe so.

4 MR. ROSSI: We can find out --

5 MR. ROGERS: -- what the real thing is, but
6 I think so. That statement there it seems could be
7 subject to interpretation.

8 MR. ROSSI: We recognize that.

9 MR. ROGERS: I guess some other documents
10 here -- there was some discussion about the water
11 hammer and those actions that Region III had taken
12 or had stated to the licensee -- not to the licensee,
13 but had determined that a confirmation of action
14 letter would be appropriate and --

15 MR. BEARD: Now, excuse me. Are you
16 talking about the water hammer in the aux feedwater
17 system?

18 MR. ROGERS: Yes, and I would like to
19 present the team for their review those items that
20 were considered a part of the confirmatory action
21 letter.

22 MR. ROSSI: Can you just keep track of
23 these as we go and mark each one and put the title
24 in at the time he hands it to you and that will save

1 us getting any more involved in keeping track?

2 MR. BEARD: I guess that becomes Exhibit 3.

3 MR. ROGERS: The other item deals with --
4 that also deals around the startup feedwater system,
5 and I did reference an inspection report on what
6 happened with regard to the valving, that having the
7 startup feedpump not protected from the high-energy
8 break spectrum or not protecting auxiliary feedwater
9 pump being protected from a high-energy break
10 spectrum.

11 MR. ROSSI: You should probably hand her
12 each of these in the series.

13 MR. ROGERS: This is an inspection report.
14 It is already docketed. It is in the PDR of
15 Inspection Report 8415. That is the number if the
16 team wishes to review that to see what actions were
17 taken in that regard.

18 - - - - -

19 Thereupon, Exhibits Nos.
20 1 through 4 were marked
21 for purposes of identification.

22 - - - - -

23 MR. ROGERS: Also I have another document
24 that is a part of the licensee's updated safety

1 analysis report that this does discuss protection of
2 the piping in this area, and it specifically deals
3 with the startup feedwater feedpump system that I
4 think it might have some bearing in your
5 understanding of this phenomenon of the water hammer
6 and what actions were taken.

7 MR. BEARD: Could you give me a reference
8 by section number or page number?

9 MR. ROGERS: I have the page number,
10 3.6-66.

11 MR. BEARD: 66?

12 MR. ROGERS: Yes.

13 MR. BEARD: That is the current updated
14 FSAR?

15 MR. ROGERS: Provided the control copy I
16 got it from is being kept current. I am assuming it
17 is a current page.

18 MR. ROSSI: In any event, we have the
19 thing for the transcript.

20 MR. ROGERS: The other item I would like
21 to discuss is something that Dr. Rossi stated during
22 the interview and that was in my transient analysis
23 of the situation dealing with the sequence of events
24 and those things that evolved, and I guess part of

1 it has become an item of discussion dealing with
2 part of what the licensee did in determining their
3 sequence of events, and I guess I have talked and
4 interrelated with one of the individuals that pretty
5 much works up the sequence of events, or at least
6 the first sequence of events, that was presented
7 back in Washington.

8 Discussion here was the licensee -- it
9 appears from his discussion that what the intent of
10 that original sequence of events was to try to
11 explain the response of the plant to the transient,
12 how the plant responded to the transient, and not
13 necessarily try to identify all the equipment
14 malfunctions that took place throughout the
15 transient, and that that original sequence of events,
16 as I reviewed what the licensing staff transmitted
17 as they presented to me, the third page of that
18 document does very specifically state that this was
19 preliminary data, and I guess just a comment from my
20 point of view, that when you are involved in an
21 incident especially -- I have been involved in a
22 number of, I guess, what I call fairly significant
23 transients out here, that the capability to sit down
24 and look at the graphs, the computer points, and all

1 of that in a matter of minutes or hours is not
2 reasonable. It is unreasonable to assess the whole
3 situation and the whole transient in a matter of
4 minutes or even hours from a standpoint of looking
5 at it in detail to determine all the problems you
6 have associated.

7 It is one thing when you are dealing with
8 what appears to be a routine reactor trip versus
9 something that is apparent, things aren't working
10 properly or completely properly. I just, I think
11 the team has some insight into that given the amount
12 of time and analysis that they spent looking into
13 this event, and that just from the standpoint of
14 transient analysis, which there is very limited if
15 any transient analysis given on the Babcock and
16 Wilcox units in your training, that it behooves
17 people to kind of use a little common sense and
18 understanding of what you are getting in the time
19 frame in which you get information about failures
20 and what has actually happened to the facility,
21 especially if the facility is not in any intent
22 trying to return to power, but trying to explain and
23 understand everything as to what actually is
24 happening or has happened to the facility. I just

1 put my two cents worth in.

2 MR. BEARD: Are you referring to the
3 sequence of events that the licensee developed and
4 transmitted by telecopy to Bethesda on the 10th of
5 June, that first Monday?

6 MR. ROGERS: Yes.

7 MR. BEARD: Are you aware of the
8 conditions of the request of such a sequence?

9 MR. ROGERS: Based upon discussion with
10 the individual, I am. I was not physically here at
11 the site during that time frame, but I can pretty
12 much imagine the type of turbulence that had to
13 surround that individual at the time, especially
14 since he was one of the key individuals in trying to
15 assess the event, given he was woke up in the middle
16 of the night like a lot of other people were.

17 MR. BEARD: Let me understand something,
18 wait, because I might have been involved in the
19 request for that.

20 Out here at the plant the event happened a
21 little after midnight Saturday night or early Sunday
22 morning, and I understand, if I remember correctly,
23 that the licensee indicated that they had meetings
24 and debriefing Sunday afternoon and therefore had

1 spent some time looking at where the plant had been?

2 MR. ROGERS: Yes.

3 MR. BEARD: Monday when we all got in to
4 work, there were several meetings within NRR and
5 other offices in which we were trying to get a
6 handle as to the best available information at that
7 time on what had happened, and I think that it was
8 agreed that somebody, maybe the project manager or
9 somebody, would put together the best available
10 sequence of events at that point in time, so that
11 the team, when it left, would have the benefit of
12 the best available information when we left.

13 In retrospect it appears that if the
14 licensee spent time Sunday afternoon debriefing
15 people, that ought to be for a first cut fairly
16 decent; shouldn't it?

17 MR. ROGERS: In some respects it could be
18 given the significance and the number of failures
19 you have. Debriefing of the people is one thing,
20 but like in this case, to put together the sequence
21 of events the individual had about two hours to pull
22 it together and a lot of things are going on at that
23 time, and I am just saying that people have to
24 realize that when something is preliminary, it is

1 just preliminary and take that with a grain of salt.
2 That once you get out here there may be a number of
3 other things that have been discovered or even they
4 knew ahead of time but just didn't feel at that
5 point in time were that significant to bring out to
6 actually determine what the response of the facility
7 was to the event.

8 In terms of there may be a valve failure
9 that may not have caused a significant
10 depressurization or overpressurization of the steam
11 generator or the reactor coolant system and that may
12 not be there, but really in these first 24 hours or
13 so, a lot of what you got is if you got to sit back
14 and really kind of put it together, even though you
15 may have all the pieces, the time frame to sit down
16 and really look at what you have got and start
17 fitting the pieces together, that sometimes it takes
18 a little longer than what you really may think.

19 MR. BEARD: You said you have been
20 involved with a number of events because there have
21 been some up here and you have seen the first
22 sequence of events for other events, and I am sure
23 you have seen, like I have that as time goes on
24 people get time to sit down and put the pieces

1 together, as you say, more details arise, and it
2 becomes a little firmer.

3 MR. ROGERS: Yes.

4 MR. BEARD: In comparison with other
5 events, do you find the first sequence of events
6 that was produced that Monday significantly
7 different in any way?

8 MR. BEARD: I don't think it was that
9 terribly significantly different. I think the main
10 thing is that sequence of events is normally not an
11 external document. I think that may be the big
12 difference here that, as an external document it
13 probably didn't receive the number of reviews that
14 it would normally receive and people, you know, one
15 person says this and may not say -- well another one
16 may look at it from a different perspective and say
17 well, maybe this needs to be here or that needs to
18 be here.

19 MR. BEARD: This one is probably
20 comparable to others; is that correct?

21 MR. ROGERS: I think so.

22 MR. BEARD: What about comparable to other
23 utilities?

24 MR. ROGERS: I don't know about other

1 utilities. I can't speak from any foreknowledge of
2 that.

3 MR. BEARD: Did you have something you
4 wanted to enter into the record?

5 MR. ROGERS: I don't know. I will ask you
6 all.

7 This is the LER that originally started
8 discussing the potential piping breaks on the
9 startup feedwater pump piping. I brought it along
10 just -- if you all thought it would be of interest.

11 MR. ROSSI: Yes, that would definitely be
12 of interest, so we would like to have that too.

13 MR. BEARD: As I understand it, the
14 licensee identified this problem in this LER and had
15 proposed some corrective action, so that would
16 certainly be a key item.

17 MR. ROGERS: That is LER 84009.

18 - - - - -
19 Thereupon, Exhibits Nos.
20 5 and 6 were marked for
21 purposes of identification.

22 - - - - -
23 MR. ROGERS: I thank you all for your time.
24 I know it has been a long week for everyone.

1 MR. ROSSI: Thank you.

2 MR. BEARD: I think this information will
3 be useful, thank you.

4 MR. ROSSI: We thank you for looking this
5 up, and it will be useful.

6 At this point we will close this interview
7 then.

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1 CERTIFICATE

2 I, Celeste C. Dawley, a Registered
3 Professional Reporter and Notary Public in and for
4 the State of Ohio, do hereby certify that I took the
5 proceedings and that the foregoing transcript of
6 such proceedings is a full, true and correct
7 transcript of my stenotypy notes as so taken.

8 I do further certify that I was called
9 there in the capacity of a Court Reporter, and am
10 not otherwise interested in this proceeding.

11 IN WITNESS WHEREOF, I have hereunto set my
12 hand and affixed my seal of office at Columbus, Ohio,
13 on this 24th day of June, 1985.

14
15 Celeste C. Dawley
16 CELESTE C. DAWLEY, RPR and
17 Notary Public in and for the
State of Ohio.

18 My Commission expires August 25, 1987.
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DIRECTIONS FOR MAKING CORRECTIONS

If you have any corrections that you wish to make on your transcript, please do so on the following page in the following fashion:

Indicate the page of the correction, the line number, and then the change to be made and the reason for making the change. Date and sign all correction pages that correspond with your transcript.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
January 8, 1985

Exhibit #1 / Rogers

Rogers

Docket No. 50-346

Mr. Richard P. Crouse
Vice President, Nuclear
Toledo Edison Company
Edison Plaza - Stop 712
300 Madison Avenue
Toledo, Ohio 43652

File with
License

Dear Mr. Crouse:

SUBJECT: AMENDMENT NO. 83 TO FACILITY OPERATING LICENSE NO. NPF-3;
LICENSE CONDITION RELATING TO STARTUP FEEDWATER PUMP OPERATION

The Commission has issued the enclosed Amendment No. 83 to Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station, Unit No. 1. This amendment consists of the addition of a new license condition which imposes three operational restrictions relating to the use of the startup feedwater pump in response to your application dated November 12, 1984.

Copies of the Safety Evaluation supporting this amendment and the Notice of Issuance are enclosed.

Sincerely,

Albert W. De Agazio

Albert W. De Agazio, Project Manager
Operating Reactors Branch #4
Division of Licensing

Enclosures:

1. Amendment No. 83
2. Safety Evaluation
3. Notice

cc w/enclosures:
See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

TOLEDO EDISON COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

DOCKET NO. 50-346

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 83
License No. NPF-3

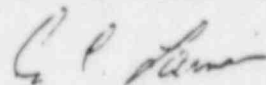
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Toledo Edison Company and The Cleveland Electric Illuminating Company (the licensees) dated November 12, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, Facility Operating License No. NPF-3 is hereby amended by adding paragraph 2.C.(3)(t) to read as follows:

45412501201

Toledo Edison shall operate the Startup Feedwater Pump (SUF) System with the following operational restrictions:

1. Toledo Edison will station an operator in the Startup Feedwater Pump/Auxiliary Feedwater Pump (SUF/AFW) area during operation of the SUF to monitor SUF/Turbine Plant Cooling Water (TPCW) piping status in the AFW Pump Rooms. In the event of SUF/TPCW pipe leakage, the operator will trip the SUF locally or notify the Control Room to trip the SUF, and isolate the SUF/TPCW piping.
 2. Toledo Edison will isolate and maintain isolation outside the SUF/AFW area of the SUF suction, discharge, and turbine plant cooling water piping, when the SUF is not in operation (Modes 1, 2 and 3).
 3. Toledo Edison will install a SUF, associated piping, and valves, to remove the hazards to the AFW pumps before commencing Cycle 6.
3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Gus C. Lainas, Assistant Director
for Operating Reactors
Division of Licensing

Date of Issuance: January 8, 1935



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 83 TO FACILITY OPERATING LICENSE NO. NPF-3

TOLEDO EDISON COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

DOCKET NO. 50-346

1.0 Introduction

By letter dated November 12, 1984, the Toledo Edison Company submitted an application to amend Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station, Unit No. 1. The proposed amendment would add a new license condition which would allow for the use of the startup feedwater pump (SUFP) for the duration of Cycle 5 operation whenever the facility is in operational Modes 1, 2 or 3. The license condition also adds certain procedural requirements to provide compensatory measures and requires that Toledo Edison Company install a new SUFP and associated system components to permanently remove the hazard to the auxiliary feedwater (AFW) pumps from SUFP operation. This installation is to be completed prior to Cycle 6 operation.

2.0 Discussion and Evaluation

In a Licensee Event Report (LER) No. 84-009 dated June 18, 1984, Toledo Edison Company identified one high and three moderate energy lines in the AFW pump rooms 237 and 238 whose failures have not been analyzed. These lines are the SUFP discharge (high) and suction lines and the turbine plant cooling water (TPCW) piping which cools the SUFP. The SUFP is located in AFW pump room 238 and can jeopardize AFW pump 1-2 due to a pipe leak or break which includes the effects of jet impingement, pipe whip, flooding, and environmental conditions. The AFW pump 1-1, located in room 237, can be jeopardized by flooding and high ambient temperature.

During a meeting on September 19, 1984, Toledo Edison proposed to install a new SUFP system and documented this commitment in their submittal dated October 18, 1984, and November 21, 1984. This new SUFP and associated piping and valves will be located outside of the AFW pump rooms. The new system should have sufficient flow capacity to remove the decay heat from at least one steam generator following design basis accidents.

~~CONFIDENTIAL~~

Until the new SUFP is operational, Toledo Edison company has committed to the following interim measures. The SUFP suction and discharge lines and the TPCW lines will be isolated by means of manual valves located outside of the AFW pump rooms during operational Modes 1, 2 and 3 when the SUFP is not in operation. During startup and shutdown when the SUFP is used (operational Modes 1, 2 and 3), an operator will be stationed in the AFW/SUFP area to monitor system operation. In the event of pipe leakage, the operator will immediately trip the SUFP locally or notify the control room operator to trip the pump and to isolate the SUFP and TPCW piping from outside the AFW pump rooms.

Toledo Edison has confirmed that hydrostatic testing of the high and moderate energy lines to the requirements of ANSI B31.1 has been completed to demonstrate the integrity of the SUFP and TPCW piping.

We will require that a license condition, concerning these interim measures, be in place prior to using the existing SUFP. The license condition should address the following items.

1. In operating Modes 1, 2 or 3, the SUFP suction and discharge lines and the TPCW lines in the AFW rooms shall be isolated by means of manual valves from outside of the AFW rooms and the pressure in the piping will be verified to be less than 275 psig.
2. In operating Modes 1, 2 or 3 and when using the SUFP, an operator will be stationed in the SUFP/AFW area to monitor for pipe leakage. Upon identification of pipe leakage, the operator will manually trip the SUFP locally or notify the control room operator to trip the SUFP and to isolate the SUFP suction and discharge lines and the TPCW lines.
3. The new SUFP system shall be installed prior to startup following the 1986 refueling, Cycle 6.

In Toledo Edison's submittal dated November 12, 1984, they stated that the hydrostatic testing has been successfully completed for the SUFP suction and discharge lines. Toledo Edison has confirmed that hydrostatic testing of the TPCW lines has also been completed (Toledo Edison Company letter dated December 21, 1984).

Based on having a license condition, successfully hydrostatically testing the associated SUFP and TPCW piping, and the low probability of pipe failure, we conclude that limited operation of the existing SUFP, until installation of a new remotely located SUFP is complete, is acceptable.

3.0 Environmental Consideration

An Environmental Assessment and Finding of No Significant Impact has been issued for this amendment.

4.0 Conclusion

We have concluded, based on the considerations discussed above, that:
(1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: January 8, 1985

Principal Contributor: John Pidgely