Inter-Office Memorandum

Date June 17, 1979
TSG-228

GPU Service

Subject RCS Pressure Indication

To J. G. Herbein

Location Three Mile Island

As a result of the loss of the last "normal" RCS pressure indication (PT 400) as of 0600 hours this morning, the following is a list of options to be considered for RCS pressure control in order of preference.

A. Maintain pressure by using DVM in Control Room within 365 psig ± 25 psi or 4.473 to 4.836 volts, (See Attachment 4(b) and 2) as indicated in EP-12.

B. Maintain pressure by using RCS Sample Line Heise gage readings within 365 psig ± 25 psi (See Attachment 4(a) and 1) as indicated in EP-12.

C. Maintain pressure by using RCP-2A cavity seal pressure readings within 375 psig ± 25 psi (See Attachment 4(c) and 3).

D. If any two of the three items above, A., B. and C., have failed and if RCS Pressure and Volume Control System is available, system should be put in operation. It is my understanding that the system has been hydrotested to 900 psig and found acceptable except for minor modifications. I have discussed today the 900 psig hydrotest with B&W and have received a verbal acceptance per Bill Spangler, Dick Skillman and Greg Schaedel. A letter has been written by B&W concurring with the above hydro and should be received on site by tomorrow, Monday, June 18, 1979.

Due to the possible urgency of the matter, it is suggested that the system be made available for use as soon as possible with local rather than Control Room control, if such a change will help make the system available for use at an earlier date.

E. Redraw the bubble in the pressurizer and maintain pressure with the heaters as indicated in Procedure Z-63.

F. Use the Heise gage between DH-V-2 and DH-V-3 by opening DH-V-1 or DH-V-171. Consideration should be given to lowering RCS system pressure to the lowest allowable point such that the possibility of lifting of DH-R1 is minimized. Installation of at least one additional Heise gage of the same connection as the existing one should be considered for redundancy.

G. As a last resort, Procedure Z-58 "RCS Pressure Control - Solid System with Core Flood Tanks Floating" should be reviewed and PORC'd. It should be noted that possible problems with this procedure are:

1. Possible loss of CF Tank level indication.

2. Possible loss of CF Tank pressure indication.

3. Need to drain CF Tanks (disposal and containment integrity).

4. Possible addition of nitrogen to RCS.

5. Possibility of loss of natural circulation due to gas in RCS following a rapid depressurization.

In conclusion, items A., B. and C. are strongly recommended. Items D., E., F. and G. should only be used in the given order only if the situation warrants the action.

Other items to be considered are:

1. Verifying the ability to change narrow range pressure transmitters to wide range pressure transmitters if the instruments are still functioning.

2. Installation of a Heise gage of MU-V-400.

The above items will be included in EP-12 as required.

If you have any further questions, please feel free to ask.

Julien D. Abramovici

B. D. Elam

JDA/al
ATTACHMENTS(5)

cc: R. C. Arnold
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D. Vollmer (NRC)

Date

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4. M. Greenberg	P-802		
5.			

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REMARKS

John Collins

File
Cross/Vol Control
System

Please provide comments by 7/2/79

If option D (RCS Pressure and Volume Control System) is elected, which most likely will be ~~used~~ then option A or B should be used in conjunction. The reason is that RCS pressure should be monitored to provide a high ΔP alarm between the RCS and pressure control system. Option A is preferable because it can be continously monitored. Option C may not be available when the standby pressure control system is in use because makeup pumps would be racked out and no flow to the RC pump seals be provided.

Also, since RCS pressure will be reduced, pressure set points for options A, B, and C should be lowered.

Al Ignatonis

06/28/79

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FROM: (Name, org. symbol, Agency/Post)	Room No.—Bldg.
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OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

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