

PLANNING MEETING

0800 4/12/79

1. Review Action Items from 4/11/79 Technical Review Meeting.
2. Review "Top Priorities" list.
3. Review "0800, April 12, 1979 Tasks Lists".
4. Review April 12, 1979 "72-Hour List".

Top Priorities

1. Install filters in air ejector discharge.

Status: Double tees are installed. Duct work has been tackwelded and welding is proceeding. Should be complete on 4/12 and be ready for test.

2. Change out charcoal filters in one 50% train in Auxiliary Building.

Status: Filters on-site. Procedure complete and available. Training is complete. Filter change delayed due to procedure approval delay. Estimate 3 to 4 days to complete change.

No fire hazard exists from expended charcoal. Filters will be double wrapped in poly and shipped in wooden crates.

3. Change out charcoal filters in one 50% train of FH Bldg.

Status: Filters are avoidable. Work scheduled to begin upon completion of AB filters.

4. Install liquid waste tank farm in spent fuel pool A.

Status: Steel for racks will be on-site on 4/12. The tanks are being modified and will be back on-site in time to be put in pool. All pipe is on-site; valves and instruments are on order. Concrete shield slabs will be fabricated on-site. Will retain capability to flood pool if desired. Foreman has been assigned and is lining up personnel. Estimated completion is 4/22 to 4/26.

5. Install Cap-Gun system in Chemical Cleaning Building to process Unit 2 water.

Status: Building is being cocooned on inside and monorail to remove cask is being installed. 20-ton hoist is being flown in from Wisconsin on 4/12. Estimated completion is 4/23 but schedule is being reviewed.

6. Decay Heat Removal System (Support of Base Plan).

Status: Upgrading of existing system being held up by AB contamination. Decontamination to begin 4/13. The skid system will be installed in pit outside building. May be some interference with buried pipe.

7. P/V Control System (Support of Base Plan).

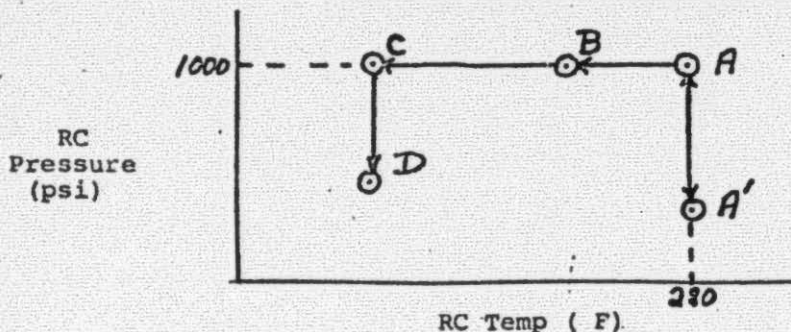
Status: Criteria being established for N₂ pressurized passive system. Schedule to be established.

Technical Review Meeting

1800, 4/11/79

	<u>Action</u>
1. Sample of MU tank could not be obtained at 5 psi. Isolate tank, let pressure build up to 10 psi and attempt to get a sample.	Herbein
2. Criteria has been established to get into long-term using natural circulation.	
a. Provide schedule for using both "A" and "B" OTSG in a solid condition.	Harper (Cobean)
b. Write procedures for initiating natural circulation based on criteria.	Crimmins (Wilson)
3. B&W has looked at the Reflux method of cooling as a back-up to natural circulation. It looks promising, but two items require additional study.	
a. Study effects of noncondensibles.	McMillan
b. Study how to measure water level in reactor vessel.	McMillan
4. Provide results of primary sample analysis of the Bettis, ORNL, and Savannah River.	NRC
5. Determine method of getting pressurized primary sample by shielding the 250 mil bomb or modifying rig for 30 mil bomb.	Levy/ Wilson
6. Provide rationalization for proceeding to Point B (reduced temperature) on Base Case Summary Rev. 2. To be reviewed by NRC before proceeding.	Crimmins (Wilson)
7. Determine what documentation for SER and tech. spec. changes must be transmitted to NRC under a Met-Ed signature.	NRC
8. Prepare submittal to NRC for Long-Term Cooling using Natural Circulation.	
1. Submit to NRC by 4/12.	Crimmins (Wilson)
2. Review by 4/13.	NRC

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TMI-2 Recovery
IASE CASE SUMMARY (Revision 2)

- (1) Degas at A. Lower pressure (A→A') while degassing, then return to A.
- (2) Continue design/installation of static & active systems for primary makeup/level control and secondary cooling system for S/G "B".
- (3) Reduce temperature (A→B) by steaming on "A" S/G. Verify operability of secondary cooling system for "B" S/G.
- (4) At B, establish solid cooling to "B" S/G, and when stable, isolate "A" S/G.
- (5) Reduce temperature (B→C) with S/G "B". As soon as possible, start solid operation with "A" S/G, with modification pkg to be determined.
- (6) At C, trip RC Pump "A" and establish natural circulation in "A" and "B" loops.
- (7) Reduce primary pressure to value to be determined (C→D).
- (8) Take primary system solid - activate new MU/pressure control system.

END POINT

Primary: Natural circulation, solid water, long term P/V control

Secondary: Solid water, long term heat dump system

APPROVED FOR ISSUE:

R. C. Arnold 2005 343

Technical GPU Support Group

<u>Task</u>	<u>Description</u>	<u>Priority</u>	<u>Status/Date Due</u>	<u>Task Coord.</u>
LS.1.	Plan for near term NRC interaction	1	4/11 memo documenting reporting agreement with NRC.	L. W. Harding
LS.2.	Tech. Spec. deletions; changes to those left & additions	1	NRC interactions under negotiation	L. W. Harding
TP.1.	Plan for normal transition to natural circulation - provide analysis procedure	1		Keaten/ Crimmins
TP.12.	Fire in plant areas procedure	1	1st draft being reviewed	Edwards
TP.13.	Evacuation of Control Room procedure	1	Rev. 0 - out Rev. 1 in review	Pope/ Keaton
TP.20.	Loss of letdown flow train	1	Draft out for review 4/10 14:30	G. Broughton Dye
TP.22.	Procedure for loss of SG heat sink	1	Final Issue 4/11, 12:00	Broughton/ Pope
TP.38.	Plan for establishing solid system OTSG A & B	1	4/11	Brewer
TP.40.	Procedure for determining gas level in RCS by M/U tank pressure increase	1	Status being checked.	Broughton/ Lowe
TM.1.	"B" SG Closed Cooling System. Criteria/ approval	1	Criteria out for review 4/10, 19:00	Slear
TM.2.	Back-up reactor pressure control system (active). Criteria/approval	1	Criteria out for review	Slear
TM.5.	System to measure water level in Reactor Building. Criteria/approval	1	Criteria out for review	Slear

Technical GPU Support Group

<u>Task</u>	<u>Description</u>	<u>Priority</u>	<u>Status/Date Due</u>	<u>Task Coord.</u>
AA.2.	Boron concentration recommendation in Reactor Coolant System	1	Awaiting sample results	
AA.3.	Relative to B&W recommendation H ₂ gas measurement in primary. Coolant - assess total H ₂ data	1	4/11	Bachofer
AA.17.	Determine methodology for measurement of dissolved and suspended noncondensable gas in main coolant system	1	Continuing 2 procedures	Think Tank, B&W Crimmins/ Cunningham
AA.20.	Provide criteria for determining if natural circulation is not achieved from results of instrumentation	1		Crimmins/ Cunningham

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THURSDAY, APRIL 12, 1979

PLANT OPERATIONS STAFF

<u>TASK</u>	<u>DESCRIPTION</u>	<u>PRIORITY</u>	<u>STATUS/DUE DATE</u>	<u>TASK CO-ORD.</u>
#1	Obtain RCS de-pressurized sample results	1	4/10-Sent off-site Bettis/Oak Ridge/Savannah/B&W/MEC for analysis	Hetrick/ Rogers
#2	Obtain RCS pressurized sample-write procedure to incl. lead pig for shielding the sample bomb	1	Need proc. - Review for minimal exposure - 4/13	Hetrick/ Graber/ Devine
3	Loss of pzz. level programs - Test Heise Gauge for 2nd press. lvl. ind. - put in service	1	Filling Reference Log 4/12 Place in serv. 4/12	Shift sup. Devine
4	Sample MU tank gas space.		Awaiting & Proc. Preparation 4/12	Hetrick
5	Degas RCS - reduce plant pressure in 50 psig increments to 300 psig	1	On-Going, pressure/vent-Evolution in progress.	Devine
6	A-Review RB cooling methods (RR sys. vs. industrial cooling-RB sys.) B-RR pumps require run-in - Monitor and report any added leakage on AB floor due to emerg. RR pumps	1	4/10 (maintain 4.5 psig neg.)	Devine/ Floyd Shovlin/ Shift Sup.
8	Emergency plan - A - Unit 1 cont. rm. B - Unit 2 cont. rm. C - Unit 2 evacuation total D - Site evacuation	2	Procedures Should incl.: criteria/who remains behind/ops. functions prior to leaving	Crimmins
9	Restore pressurizer heaters - 920 kw of total 1638 available	2		Porter
10	Estab. spill-control proc. for control of samples	2	Low priority	Graber
11	Get Geli setup at S. Bridge	2		Porter
12	Issue master organizational plan	2	Being developed	Colitz/ Christman
13	Provide list of by-passed interlocks and normal plant trips to command center (Trailer #23)	2	Use jumper log - 4/12	Porter
14	Check atmos. dump on OTSG "B" for Leakage to M20 area or stack (1" valve has Body/Bonnet leak)	2	No work started	Shift Sup.

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WASTE MANAGEMENT GROUP

<u>TASK</u>	<u>DESCRIPTION</u>	<u>PRIORITY</u>	<u>STATUS/DATE DUE</u>	<u>TASK CO-ORD.</u>
1	A-Set-up to change AB/FH bldg. vent. filters (ensure zero leakage - QC to follow)	1	Need addl. manpower - 18 people in training/work to start 4/11	Shovlin/ Futril/ Bitel
2	Vacuum pump - condenser off-gas filter sys. - cut in using blank and hose - run (1) HR test w/fire hose for protection	1	Install - 4/11 Test Pending Compl.	Gunn/ Toole
3	A-Design and construct high level liq. waste storage vessels using spent fuel storage pool "A" system design not final, steel not ordered.	1	Need HP survey in Pool	Thorpe/ Bitel/ Cobean Gunn
	D-Empty water from (2) 15K gal. tanks for return to VDR. and test - total (4) req'd.	1	3 shipped 1 to pump	Miller/ Gunn
4	Decon water in AB using cap-gun ion exchanger process - prepare chem. cln. bldg.	1	Design = 90% 4/23	Cobean/ Gunn/ McCutcheo
5	WDL-T-88 requires sample results - transfer of A/B Neut. Tk. to Unit 1 held up pending approval by WM Group.	1	4/11 Need Procedure	Shift Sup Hetrick Bitel
6	Develop redundant AB/FH air filter system	2	Design est. 4/13	Cobean/ Gunn
7	Vent stack monitor HP-R219 recovery system - additional monitor due on site.	2	Design 4/11 Kunkel expedit'g parts	Porter/ Cobean/ Gunn
8	Decon DG Bldg.	2		Gunn/ Bitel
9	Pump Bleed Tanks-Unit 2 to Unit 1	2	Hold pending: 1. No Space Avail. 2. NRC Questions	Shift Supt.

Plant Modifications

<u>Task</u>	<u>Description</u>	<u>Priority</u>	<u>Status/Date Due</u>	<u>Task Coord.</u>
WG-2	Decon. water in AB using Cap-Gun ion exchange process	1	Complete procurement - 4/14 Equip. avail. 4/21 Install. Comp. 4/22	
TS-3	Develop complete package for short-term cooling of "B" OTSG	1	Install. Comp. "B" 4/30	
TS-4	Develop complete package for measuring water level inside Reactor Building	1	Equip. avail. 4/11 Install 4/12 Completed	
TS-10	Decide location & design 2-2500 kW diesel generators	1	Equip. avail. 4/11	
TS-11	Develop electrical distribution system. Install cabling and switchgear from DG's to current BOP loads requiring loss of off-site power protection	1	Equip. avail. 4/10 Install comp. 4/20	
WG-6	Install storage vessels in Fuel Pool "A"	1	Equip. avail. 4/12 Inst. comp. 4/15	
WG-8	Install roll-up door airlock to Fuel Handling Building	1	Included w/WG-6	
1063	Condenser vacuum pump filters	1	Installation complete except for pipe tie-in 4/11	
2002	RC loop passive pressure control system	1	Schedule avail. 4/12	
TS-6	RC loop active pressure control system	1	Schedule avail. 4/12	
WG-1	Install AB/FHB Filter System	2	Equip. avail. - 4/16, Install. Comp. - 4/16	
TS-9	Provide augmented instrument air system	2	Equip. avail. - 4/14, install. comp. - 4/16	

Plant Modifications

<u>Task</u>	<u>Description</u>	<u>Priority</u>	<u>Status/Date Due</u>	<u>Task Coord.</u>
TS-1	Study methods to improve plant electrical supply reliability	2	4/11	
WG-3	Vent stack monitor HPR-219 recovery system	2	Equip. avail.- 4/12, install. comp. 4/13	
TS-5	Method for containment flooding with 10^6 ft ³ of water	3	4/13	
TS-8	Install housing for two (2) long-term HP DHR systems	3	Design - 4/20 Install. - 5/31	
TS-13	Install and complete turn-over package of electrical heaters in supply side of Aux. Bldg.	2	Sched. avail. 4/12	
TS-14	Shield for decay heat pump pits	1	Sched. 1P	

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Industry Advisory Group

<u>Task</u>	<u>Description</u>	<u>Priority</u>	<u>Status/Date Due</u>	<u>Task Coord.</u>
1	Determine method of finding leak in vent header	1+	ASAP	H. Lawborski
2	Provide recommendation for alternative methods of P/V control	1	Working	
3	Evaluate fire in containment	1	Being restudied	Thiesing
4	Long-term heat removal	1	Complete Present 4/11	J. Thiesing
5	Unit 7 Containment Bldg.			
	a. Possible causes of change of state	1	4/11	S. Levy
	b. P/T suitable for 30 days	1	4/11	S. Levy
	c. Cleanup options for cont. atmosphere	2		To be assigned
6	Current assessment of core status	1		S. Levy
	a. From thermal-hydraulics instrument data			Solbrig
	b. Sequence of events and core description from event understanding			Dietrich Paladina
7	Provide documentation of completed items	2	Ongoing	
8	Surveillance of Waste Mat. Group	2		To be assigned
9	TMI Unit 1 start-up criteria or securing criteria	2		To be assigned

Westinghouse

<u>Task</u>	<u>Description</u>	<u>Priority</u>	<u>Status/Date Due</u>	<u>Task Coord.</u>
I.A.3.	Define Aux. Bldg. T.V. monitor needs for existing DHR system.	1	Ongoing/4-13	M. Siano
I.A.3.	Define DHR remote operation (pump & valve) needs.	1	Ongoing 1200/4-12	M. Siano
I.B.1.	Decontaminate Aux. Bldg. for DHR Sys. checkout	1	4/13	M. Siano
I.B.2.	Install Aux. Bldg. T.V. monitor for existing DHR system.	1	After decon.	M. Siano
I.B.4.	Install DHR remote operation equipment.	1	After decon.	M. Siano
I.B.5.	DHR flow/pressure tests	1	After decon.	M. Siano
II.A.1	ADHR (new) system design & approval	1	Ongoing 4/13	M. Siano
II.A.1.	ADHR final test procedure	1	Ongoing	M. Siano
II.A.1.	Final ADHR installation procedure	1	Ongoing	M. Siano
II.A.2.	ADHR procurement	1	Ongoing	M. Siano
II.B.	ADHR installation	1	No status	M. Siano

B & W

<u>Task</u>	<u>Description</u>	<u>Priority</u>	<u>Status/Date Due</u>	<u>Task Coord.</u>
1	Analysis of gas conc. in Primary System	1	Working 4/12	Kulynych
2	Provide list of critical systems for present conditions	1		
3	Provide noise analysis of pressure during degassing	1	Continuing	Rogers
4	Develop procedure to determine pressurizer level using Heise Gauge	1	Working	Rogers
5	Develop guide for cooldown using OTSG's on natural circulation	1	Completed	Kulynych
6	Provide safety analysis showing long-term cooling is safe, maintainable, etc. (NRC Review)	1	Completed delivered in 4/11 mtg.	Kulynych
7	Review IAG analysis of long-term reactor cooling considering flow leakage paths	1	Prelim. 4/10, 1600 Final 4/13	Kulynych
8	Resolve issues on boration to 3000 ppm	1	Resolved by RC sample	Kulynych
9	Determine minimum primary system pressure (point D, Base Plan)	2	Working 4/12	Kulynych
10	Core analysis program: a. thermocouples from incores b. neutron signals from incores	2	Described at 4/11 mtg. Still Working	Kulynych
11	Document of sequence of plant conditions in base plan	3	Completed	

72-HOUR LIST

Description	4 12	4 13	4 14	4 15
PLANT OPERATIONS				
Pressurized coolant sample				
Reactor Cooldown to 220 F. steaming			Ongoing	→
Maintain Containment Integrity			Ongoing	→
Degas RCS - to 300 psig			Ongoing	→
Sample/Survey TMI-2 Waste Neutralizer Tank B				
Core Analysis			Ongoing	→
<ul style="list-style-type: none"> a. Incore T/C's b. Neutron signal from incores c. RMS readings d. Noise Analysis e. Ex-core instruments 				
Check Atmospheric Dump - "B" OTSG for leakage		B/B leak		
Heise Gauge		Recheck at higher pressurizer level		

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72-HOUR LIST

Description	4 12	4 13	4 14	4 15
<u>WASTE MGMT.</u>				
Process Unit 1 Low Level Liquid through Cap-Gun				
Change AB/FH Filters	WG-1			
Obtain Water Sample/Level Unit 2 Containment Sump		Awaiting Procedure Approval		
Install Stack Monitoring System		In Procurement		
<u>PLANT MODIFICATIONS</u>				
Install Storage Vessel in Fuel Storage Pool - Unit #2	WG-6			
Decon. Water in Aux. Bldg. Using Cap-Gun	WG-2			To 4/22
Install Rollup Door Entry in Unit #1 & 2 FHBs	WG-8			
Install Aux. Bldg. - FHB Filter in New Outside Structure	WG-1			To 4/16
Install Augmented Instr. Air System (Diesel Driven)	TS-9			To 4/16 Complete Except Pipe Tie-In
Install Condenser Vac. Filter	1063			
<u>B & W</u>				
Noise Analysis during Degassing		Ongoing		
Core Analysis		Ongoing		

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