4/17/05 8:29

DRP POLICY NO. 6 8:42 ALERT – EAL BA2

PLANT TRANSIENT RESPONSE CHECKLIST Rx trip – s/g relief stuck open, SCAS/MSI

PURPOSE

To provide a broad checklist of topics (Attachment 1) for reference by regional staff and management following a plant transient or event of heightened interest.

REFERENCES

Management Directive 8.3, ANRC Incident Investigation Program@

NRC Inspection Procedure 71153, AEvent Followup@

NRC Inspection Procedure 93812, ASpecial Inspection@

NRC Inspection Procedure 93800, AAugmented Inspection Team@

NUREG-1303, AIncident Investigation Manual@

GUIDANCE

The initial NRC reaction to a plant transient or event must be concise yet comprehensive to ensure an appropriate response. This checklist can help guard against becoming too consumed in the details to overlook the obvious. The intent is not to replace established procedures pertaining to NRC incident response, but rather to provide those involved with a list of broader topics that should be considered. Although the questions and areas of concern following an event may expand beyond this checklist, this should provide a sound base to help form the regional response.

IMPLEMENTATION

Resident Inspectors and DRP management should retain a copy of Attachment 1 for use during a plant transient or event with heightened interest. In addition, a copy should be retained for use in the incident response center and the regional duty officer brief case.

ATTACHMENT 1

EVENT FOLLOWUP CHECKLIST

Jeff Semancik & Steve Sawer

Initial Event Response

✓ 1. Observe plant parameters and discuss with the licensee the current plant status. Is the safety significance of the situation fully understood?

✓ 2. Is the plant stable? Are plant conditions currently degrading or are conditions expected to degrade? Plant is stable, presently there were complications,

✓ 3. Review control board status, equipment indications, operator logs, and strip charts to determine current condition of the plant and if anything unusual has occurred.

A/20

4/17/05 8:29 am

ALERT DECLARED

4. Determine alarms or conditions preceding or indicating the event. See Notes.

5. Obtain details about the event, including the initial assessment of the event by the licensee.

Yes. 6. Is there anything unusual or not understood about the event? Several things - initiator - TDAFW - 1 train of ESAS

7. Was there any major degradation of fuel integrity, primary coolant pressure boundary, or primary containment boundary? Not Major - PORV/Safety leakage from pzr.

Yes. 8. Is there any identified or un-identified leakage, especially from the reactor coolant system? Leakage from PORVs & Safeties < Tech Spec. amount.

9. Is a radioactive release occurring or imminent? Were there any radiological consequences due to the event? - Leak in Aux Bldg - Steam Release + S/G samples to validate no 10 CFR 20.

10. Has the event resulted in unexpected personnel exposure or contamination? No. Hand & foot frisk if you were in the RCA.

Now Indicated. 11. Did the event involve a substantial breakdown of physical security or sabotage at the facility?

N/A 12. Did adverse weather cause the event or can weather conditions increase the significance of the event or cause any degradation to plant systems, structures or components? Transition to IP 71111.01, as needed.

13. Is the plant in an Emergency Action Level (EAL) per the site Emergency Plan? Should the site be in an EAL? Can the EAL escalate based on the progress of the event? Yes. Yes. Not likely to escalate.

No 14. ~~Were any~~ technical specification safety limits exceeded? No violation of TS. They determined later that they had 12 hours versus 6 hours.

yes. 15. Did the event involve an activity or operation that was in violation of the technical specifications, license conditions, or other regulatory requirements? Exceeded AOT for the 1B

yes. 16. Is the offsite grid and switchyard stable? Not ~~stable~~ S/D?

17. Verify that risk significant systems performed as expected. Did plant equipment perform as expected during the event? Transition into IP 71111.13, as needed. Not all eqpt. 1 train ESAS
- TDAFW trip
- CHG valve failed packing
- S/G sample line

18. What equipment is needed or available to achieve safe shutdown? ADV bypass valves.

19. What is the status of safety equipment that is currently out of service? What are potential adverse consequences of additional equipment failures? - No S/G sampling.

20. For multi-unit sites, did the event have any effect on the opposite unit(s)? Opp. Unit is in outage, drain down delayed.

Yes. 21. Were appropriate actions taken by operations personnel during the event? Interview plant personnel, as necessary, to obtain information regarding the operators response to the event. Transition into IP 71111.14, as needed. No problems indicated.

22. Were any other human factor responsible for the event or abnormalities during the event? None we are aware of at this time.

23. Were the licensee=s actions consistent with license requirements and approved procedures? Yes

24. Do station procedures or emergency operating procedures (EOPs) cover the plant conditions?

Kind of. Some recovery of B/D line to sample A & D S/Gs may not be covered.

25. Any other consequences due to the event?

26. Is there any media interest/interest from the local populace in the event? Yes channel 3. 2 news releases from licensee.

27. Did the licensee make the proper notifications to the NRC and other agencies for the event? (See technical specifications and 10 CFR 20.2202 thru 2205, 50.72 and 73.71 criteria) Yes.

28. Does the licensee have a management team in place to address the event? Yes. SERO/EDF/TSC Manned.

29. Have appropriate NRC management been briefed? - J. Wilcox / Ellis Merschoff briefing Technical Assistant (Commissioners TAs).

Short Term Event Followup Actions

30. Evaluate the significance of the event using the SDP and the regional SRAs.

31. Does the licensee plan to issue a press release about the event? Yes.

32. Have the regional Public Affairs Office and State Liaison Office been informed? Yes

33. Was the plants response during the event within the bounds of the FSAR analysis? Evaluate the plants data and compare it with the design data and FSAR descriptions.

34. Should plant equipment be quarantined?

35. Determine the event chronology.

36. Were there any event precursors? - Possible: Power supply replacement on 'B' S/G pressure instrument; could be related.

37. Evaluate whether the licensee has appropriately resolved any abnormal issues from the event prior to restart.

38. Has the licensee adequately analyzed the event?

39. Has the licensee determined the cause(s) of the event and established initial corrective actions to prevent recurrence prior to restart?

40. Have regional and headquarters management been fully briefed with the details of the event, including the licensee=s cause(s) for the event and corrective actions prior to restart?

41. Is there a need for additional or continued NRC response to the event?

Longer Term Event Followup Actions

42. Did the licensee=s event evaluation include assessment of similar previous events?

43. Are there any generic safety concerns from the event that are potentially applicable to other facilities?

Max,

Observations from 8:00 pm – 11:45 pm

- Initial problems acquiring SG samples due to inability to re-open valve HV-22A. Sample found < MDA at 9:53 pm. Tritium sample on-going.
- Two packing leaks in CVCS (valve 661 and CH-V-8511B.
- Licensee secured ERDS data at time of de-escalation from ALERT.
- Observed placing RHR in-service. Operators did a good job Ensure TS 3.6.3 applied and adm. controls in place for suction values.
- ERT focus :
  1) SSPS train 'A' power card.
  2) SG / Pressurizer Safety Value ref.
  3) Cause of MS-V-5 flip on AFW TT.
  4) 2 leaking charging values.

Thx. Please call with any Qs. [redacted]

Turnover w/ Pete Habig Lorst [610-420-0015]

pp. 8-9 of my notes

- See TA Briefing Points. [~~SGAS~~ SSPS fault?]
- Priorities — ① c/d the plant
  ② s/g samples
  ③ Investigate unexpected alarms during c/d → actually only RCP high range leakage flow low.
- Current Plant Conditions
- Tampering Investigation Result — 1:05 pm No tampering indicated. 2-3 hours from 7:30 pm.
- Need to get on RHR Mode 5
- Region will standdown from IRC based on s/g samples or on RHR.

Long Term — Cause?

- PORVs reaction to water environment.
- Why did TDAFW trip?
- TS entries, evaluation.
- RCS LEAKAGE EAL evaluation — did they recognize the EAL for U.E. potential?
- Continuing to steam a s/g w/o knowing the chemistry of the s/g to ensure no 1°-2° leak.
- Radiological follow-up on leak in Aux Bldg from charging.
- "Release to the public" analysis by HP.
- Special Inspection Team.

START - 9:30am

Notified by Hoof ①
ALERT - MS3.

Steve Sawer
Jeff Semanic

4/17/05: Millstone Unit 3

10:10 am
Jim Kenzo - CNOC

'B' S/G low steamline pressure → also MSI.

- 0829 Unit 3 Tripped - CAUSE?
- 0842 ALERT C-1, BA2.
- 'B' & 'C' S/G code safety valves opened & stayed open. (Safety's closed, opened & closed). 15-20 min before they stabilized.
- MSI actuated → low pressure.
- F.P. Barriers - OK
- No onsite protective actions for early dismissal
- Plant is stable.
- 'A' train SIAS (only), manually initiated SI. 'B' is in
- 'CH6' - CHV-661 packing leakage excessive; service → 'A' CH6 pump.
- EOP ES-1.1 → SI termination.
- No 50.54X
- 0849 State notified, no radio
- EOF & TSC manned
- Scott Smith is MANAGER of control room.
- ALERT classification -
- DSEO - Steve Scace, Bill Hoffner.

BA2. Unisolable steam leak outside Cont.
- Terry turbine started but tripped. Since been reset & running OK. Both MDAFW working.
- PZR SAFETIES lifted, went solid on the PZR.
- PZR Level = 84
- Pressure = 2100# trending toward NOP
- Temp @ NOT.

AUTO RX TRIP / SIAS / MSI on low steam line pressure on 'A' train only. ~~&~~ then did manual RX TRIP / SIAS / MSI.
(did replace a B S/G ~~power~~ Power supply for ~~[redacted]~~ steam pressure)

- ESF Actuation TS.
- RX TRIP
- Initiator, chg leak, terry turbine, S/G safeties didn't reseat initially! (had further lifts). S/G pressure did not appear to be at lift setpoint.
- ADVs were blocked by MSI signal.
- Tampering Procedure.
- Skip Jordan
- Manager of Communications.
- SPDS (link is not currently working, IT is responding.
- Did not include ~~anything~~ a precautionary site dismissal was required.
- Looking at Unit 2 activities ~~that~~ for any work to put on hold.

- Notified the residents to come in. Also, Maurice Heath.
- Felicia → NRC
- 1053 Licensee briefing →
  - PRT in-tact
  - ~~Did they re-open MSIVs?~~

Alan Price: Status

0829 → Unit 3 Rx trip / SIAS / MSIVen low S/G pressure.
→ No reason to believe tampering is involved @ this time.
→ Main Safety systems operated.
→ Recovered pzr level & pressure.
→ 64% pzr level, 2200# in RCS
→ transitioned to ES 1.1, terminated SI back on normal chg / letdown.

0842 → ALERT - Unisolable Stm Line Break Outside Cont. due to S/G relief lifting below the setpoint.
→ What would termination criteria be? MSI signal prevents dumping to condenser ∴ on ADVs to remove decay heat.
→ Looking at termination criteria for ALERT & looking @ UE.
→ Personnel @ state armory.
→ Corporate EOF is staffed.

Mayer → ERDS?
→ Primary chemistry? Fuel leakers?

Alan → Sampled 4 6's, no indications of 1° – 2° leak.
NOT True → Water from recirc line or chg introduced into Aux BLDG.
→ No fuel leakers.
→ Max 1° pressure = 2300(?) Leakage from a PRV, 75% level in PRT.
→ PRT rupture disc?
→ PRT level ↑ slowly, 82%, pressure = 65 psig
→ Any other indication of leakage by way of sump or otherwise?

Sam → Primary left OR leakage?
Alan → Indications of safety leakage but no 1° pressure at PORV setpoint
→ ERDS actuated.
→ Bill Hoffner is the DSEO.
→ No indications of other sump leakage.

Jim Wiggins → Plan forward? RCR safeties don't close water.
→ Per SOMD conditions were 1st priority.
→ Imagine further steps to cooldown the primary.

Wayne → ERDS still not working.

— END of BRIEF

Brian → Can they pump PRT?
— Is there only 1 relief leaking? How indicated?
— Results from 1° chemistry?
— ENS line?
— HPN line?
HOO — Flexible Communications / INITIALLY COULDN'T GET ON BRIDGE.

→ Larry Doerflein.
→ Wayne →

→ S/G safety lifted first?

- Remains in ALERT
- 'B' S/G low stm line pressure
- Rx trip / SIAS / MSI
- 'A' train only

PZR PRT rupture disc OK?

→ Complications → Initiator
→ 'A' train actuation only for SIAS/MSI/
→ TDAFW started but tripped
→ CHG leak - 'A' CHG pump recirculation line had a packing leak, coolant into Aux Bldg.

- S/G press 1000#
- 3 AFW running
- ~~Cond~~ ADV bypasses - MOVs ?
- Pzr level 52%, ~~PRESSURE~~ NOT.
- 1 CHG pump running

TA Brief @ 1:00pm

→ PRT level ↑ ↔ press ?
→ Any indication of PORV / Relief lifting still?
→ 1° press ?
→ S/G safeties lifting below setpoint?

→ What is the pressure in the PRT to rupture a rupture disc?
→ Are they considering how to drain the PRT before rupture disc ruptures?
→ Status of tampering procedure?
→ ERDS status?
→ Any Unit 2 outage work activities on hold?
→ S/G safety lift sequence?
→ Termination criteria for alert?
→ Unit Sump "in-leakage?

'B'

12:00 pm → ERDS is established.
→ ~~SRA~~ Licensee brief on OPA.

→ S/G code safeties
'B' safety lifted @ 1140#, setpoint = 1180#.
· 6 hour LCO to get to 350°, temp is currently 550°
→ TA brief @ 1:00 pm.
→ Drawn a 1° sample, don't know results yet.
→ Still in E31.1, MSI reset is the only one remaining.

TA Brief 1:00pm

- SRI
- At 0829, Millstone Unit 3 experienced an automatic Rx trip, 'A' train SIAS, and 'A' train MSI from a 'B' S/G low steam line pressure. Operators followed up with manual initiation.
- S/G safeties on 'B' and 'C' opened & stayed open and then cycled until they stabilized about 15 minutes later. (5 safeties on each S/G).

0842. Operators declared an ALERT based on unisolable stm line leak outside cntmt, due to S/G safeties staying open.

- ~~Licensee has activated~~ One Pressurizer PORV & safety lifted & reseated due to going solid on the PZR from the SI. 2345# was max press reached. Press ≈ 70#, (3 safeties 2 PORVs.)
- PRT level increased to ≈ 82%, the rupture disc did not rupture.
- Complications to the event -
  - "A" train of SI/MSI actuated only
  - TDAFW pump tripped when called upon & has since been reset
  - 1 S/G safety lifted ≈ 40# below setpoint (1140 versus 1180)
  - CH6-661, 'A' CH6 pump recirculation line had a packing leak & has since been isolated. No airborne indications.
- Current Plant Conditions
  - Removing decay heat via the Atmospheric Dump Valve bypass valves.
  - PZR level = 53% press = 2260# temp = 550° progressing toward cooldown. S/G WR = 62% press: 1000#

- PRT level is 82%, 70#, licensee is in the procedure to reduce temperature in PRT and drain the PRT. Rupture disc goes from 86-100#.
- 1080# on all 4 S/G's
- Primary sample drawn, no results yet. Looking @ S/G samples.

Current Activies

- Licensee has activated the Site Emergency Response Organization, TSC & EOF are activated.
- Tampering investigation in progress, no results yet but no indications of tampering so far. (TSC)
- Remain in ALERT, evaluating termination criteria.
- Unit 2 Outage activities (RCS drain down below head flange) on hold until they terminate SERO.

ALERT Termination Criteria - Chart pressure back in band (currently @ 14#, normally ~13.5)
[Chart Chillers trip on an SI.]

- Reviewing TS
- TS 3.7.1 - S/G code safety's inoperable
  - 6 hours to Hot STBY, 6 hrs to Hot S/D 200-350.
- Need to investigate initiator, [electronic failure or actual low MS line pressure?]

Randy:

- Continue to monitor plant parameters to cooldown.
- Need to follow-up on TD AFW

→ What is normal PRT level? (40-50%)
→ How many S/G safeties lifted in each S/G? At least 1 S/G safety lifted on 'B' & 'C' S/G.
→ Location of main steam safeties 'B' & 'C' as compared to each other.
→ PORVs operating under water environment - evaluation?
→ TS

- Will not meet TS time frame to Hot S/D (<350°F).?

- Limiting 50°F/Hr because they are cooling down via Atmospheric Dump Valve bypass valves.

- 2:00 pm - Paul Krohn & Pete Habighorst to talk about site coverage.

Kevin call in ask to be put on ET bridge.

- Want to have site people until they get < 200°F.
- Send Kevin home, Maurice home. Maurice back at 10:00pm, 1:00 am.
- Silas & I stay here until 8:00pm.
- Steve Shaffer drove down to cover the night shift.
- 2 hours to get to Millstone.
- 8:00 pm turnover - two people on-site.

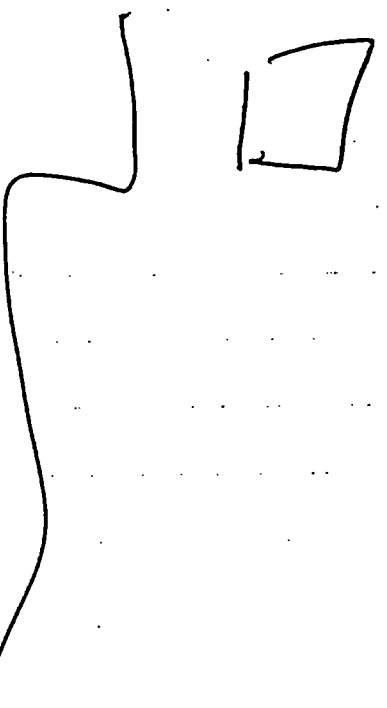
Hoffman

- NOUE for failure to meet the time.

* - RCS Leakage post PORV, is it RCS leakage to be evaluated under EALs? 3 gpm, <25 gpm identified

- 'D' S/G normal sample line CIVs did not pass entering S.G. 4 surveillance last week, isolated
- Utilizing alternate ~~secondary~~ sample flow path to get S/G sample (from the BID line) which is isolated.
- 'A' & 'D' were under continuous purge.
- Can't sample from 'D' S/G.

* Why are they steaming from 'D' S/G if they don't know the 1°-2° leak potential?



Bill Huffman: 3:20 pm

→ Secured 2/4 RCPs & begun plt cooldown.
→ Commencing C/D 60°F/HR
→ 4:30 pm evaluate C/D & termination criteria.
→ Sampling S/G's - 3/4 S/G's
- Sample on 1 also very low
- 'D' S/G is isolated, in-process of getting sample.
- Terry Turbine has a rad Monitor supplied by 'A', 'B' & 'D' S/G's.
- Alternate sample line is isolated

Wayne — Working on getting a sample from the B/D line.
WR or NR Rad Monitor on TDAFW? Similar to MS line Rad Monitor.

→ No longer steaming on 'D'.
→ Only running 'A' & 'B' RCPs. Not steaming on 'D' S/G because secured 'D' RCP.

Wayne → Update on initiating cause? Nothing yet, ERT assigned.
→ Media Inquiries? Channel 3 went to Hartford. (CBS)
→ Any new press releases? 2nd press release will be going out shortly.

Paul → Rad Monitor on S/G blowdown in-service as you bring back B/D? RM is ripp. 'A' & 'D' B/D in-service.

Jim – There are other indicators of no 1°–2° leak:
- No SG WL A or D
- No TOAFW RAD MONITOR alarms.

Wayne – Any RAD MONITOR TEAMS IN THE FIELD? Yes. Haven't seen anything on site or off site.

TSC Brief:
- TSC is investigating unexpected alarms
  - RCP high range leakage flow low alarm (RCP seal leak?)
  - letdown relief valve temp high
- Temp readings on MSSVs to determine which S/G relief is leaking.

4:00pm
- No media inquiries into region.
- Still in Monitoring Mode.

Wayne: Packing leak on chg line valve put out about 1000 gals of H_2O?

SG wtr = 72%
SG Press = 660 - 680
Rcs temp = 508
PRZ Level = 88%
RCS Press = 1390 #
charg Press = 13.8# below TS of 14#.

PRT = Temp = 180°F
Level = 68%
Press = 38#.

→ 'A' PORV block valve is closed.

1000 gals - HP now deep in 'A' dry cubicle.

✳→ Resetting of MSI signal. ?
✳→ TSC priorities - SG blo back in service for d/d samples
- Determine which PRV is leaking.
- Investigate unexpected alarms.
- Letdown relief line - both relief valve for letdown & PORV relieve to the PRT. They believe (20° above ambient)
- Letdown press = 320 #, relief lifts > 600#.

4:37 pm

Bill Heffner:

- C/D going slow, > 60°F/HR
- ~~[redacted]~~ termination criteria
- Exit Criteria - Initiating condition has cleared.
  - 2029 Time to start C/D want to ensure they make this time.
- Not steaming 'D' S/G's, in progress to get sample from 'D' S/G.
- Plant C/D - When they blocked the low pressure in the MSL, the MSIV signal reset.

* - 480°F, another 2 hours to get to < 350°.

Chemistry Brief:

- → L/U valves.
- → Establish open cycle B/D to all S/G's
- → Sample all S/G's, should take 2 hours on all
- → γ, H^3, chemistry, NPDES parameters.
- → Remain in open cycle until not enough temperature 250-300°F.
- → Maintaining S/G chemistry even though they

'A' PORV

→ Still had an SI signal in.
→ Bypass valves around ADVs.
→ Blocked SI as part of CD procedure, which removed the SI initiator. Have not reset the MSI.

Bill Hoffner

- Tailpiece temp - Common p-proxy
- EEQ data logger - working on it right now.

- Criteria for exiting the ALERT
- Initiating event is over.
- Who will be new Communicator?
- They will be in Mode 4 before they deactivate SERO.

Hoffner

Have not "reset" MSIV → don't want to lose info.

- Acoustic Monitors → PLT

(5:30 pm) **Control Room Parameters Update.**

SGWL = 76%
SG Press = 320 #
RCS Temp = 430°F
PZR Level = 71%.
RCS Press = 730 #
Chart Press = 1.2.8

C/D Rate = 60°F/Hr.

PRT Temp = 185°F
Level = 68%
Press = 42 #

RCP A & B running

PORV Valve Condition – 'A' still closed.

MSI Signal – reviewed but not reset.

Sites in TSC → Don't report as absolute, if you receive conflicting statements. Report, this is what I knew last & I'll find out. (PRT drain procedure.)

→ If someone asks about something other you have already briefed, simply rebrief. Don't say I already discussed that with the group. Obviously one of the group was not on line, otherwise they wouldn't have asked. All responders need the info. Same

Not related to event. SRI to RI technique discussion.

Not related to event.
SRI to RI technique info.

(18)

If you don't have enough info.

→ TSC priorities is a standard briefing subject. After you get an initial handle on things, Review their priority list and brief their priorities.

→ A SSPS fault.
→ Have not reset MSI yet due to SSPS issue.
→ Still don't know why TDAF tripped. Feeding using SMD AFW pumps.
→ 1900 ppm boron currently in RCS.
→ Steaming to condenser – 2 MSIV bypass don't work
– 1 S/G doesn't have a RCP running
→ C403 debrief for off going Shift.
→ ERT forming.

6:30 pm Update

SGWL = 78%
SG Press = 160#
RCS Temp = 370°F
Pzr Level = 70%
RCS Press = 440#
Chart Recs = 13.8

C/D Rate = 60°F/HR.

PRT Temp = 185
level = 68%
Press = 30#

RCP A & B running

PORV condition - 'B' PORV was isolated
- Downstream tailpiece ↓ 20°F in 15 min.
- 'B' determined to be leaker.
- 'B' remains isolated.
- ARP - guidance.

S/G → A, B, C, D to be sampled.
→ D & A will be priorities.

Bill Dorfner 1:00 pm

- RCS temp = 353°
- Termination will go out @ 350° (from ALERT)
- Will make regd notifications & phone calls.

1:03 PM Licensee in Mode 4, terminated ALERT.

- S/G samples.
- On RHR, stable & heading toward 200°F. Stable C/D.
- I'll call Maurice.

1909 - De-escaled from ALERT. HQ notified. ENS secured. 7:03 in Mode 4. SERO/RSC deactivated. OCC is the coordination center for follow-up activities.

1950 Peter J Habeghost on-site.

— SG Sample B/D alignment working. D's S/G Samples.

Contact Reactor Safety Counterpart Link.

(21).

← Results of S/G Sample 'D' ←

← Shutdown Cooling →

← Region still in monitoring mode. →

Kevin MacNamara - 1:00pm - ← not report →

2000 HV-22A Problems to reopen to establish Blowdown.

2005 - SG WR level. (Walkdown of Boards)

82% SG# 1
80% SG#2
81% SG#3
80% SG#4
WR - 53% NR

C/D Rate - 31°F/HR.

RCS Temp - 312°F.

RCS Pressure - 348 PSIG.

AFW flow - D - 8 gpm
76 gpm
90 gpm
86 gpm.

B CCP in-core.

(22).

2020 - 'A' SG aligned for sample. - B/D Sample.
260°F preps for RHR (312°F) 31°F/HR.
Preps.

2020 ET Briefing [(E. Mroscloff) / Dyer -
(T. McGinnity)
(S. Collins).]

Purpose of Call
- Terminate ALERT 7:05.
- Monitoring Mode
Criteria for normal mode.
1. SD cooling. (couple of hours)
2. Results from chemistry sampling
D' - No 1°/2°. (Steaming from this loop.
→ whatare the problems.
- Turbine AFW - No RM alarm.
Site Teams Monitoring (Nothing above background)

'D' SG revised procedures.

Water in letdown Room + ?

0835+ 'A' RHR pump in-service.

(23)

Quarantine

☐ Cards replaced SG low pressure. — (non)

← Plan to review cards →

☐ PRT parameters → [ ]

← ☐ How long shut-down * →

MSIV Bypass.
PORV
MS Safety Valve.

0500 → RHR in-hour
← Mode 5. →

0850 - 302°F C/D - 11°F/HR
A RHR pump in-service - boron equalization

D→SG ⇄ Sampling.

☐ Confirm PRT. parameters 0855
160°F
72%.
16psig.

'B' PORV Tailpipe ~ 180°F
cooldown one.

(24). Conf. Call

1- Safety MS.
Reviewing 2 other safeties
Eval. PORV - Thurs-tomorrow

Plan for Tonight

leakseals.
Min -
Like to do -
Consider
} 10:30 Mgt Team Scope Mtg.

ERT - Bob Enoch
~~OPS~~ Debrief during transient
IC - SSPS - 'A' Train Card -
SG/Pressurizer Safety
AFW TT. MS-V-5 trip closed 700psig
2 leaking charging valve - transient.
(system).
- Do not disturb As-found - / document.
OPS Crew generally positive transient.
Listing of problems -
- Cause of Rx Trip - (EOC)

~ RHR in-service ~ 1hr.
@ 2110 * SG B/D in-service / samples in progress
Delith Bed working.

(25)

VCT →

'B' PORV configuration. ☐ ← Block/PORVs → ← TC → 2" Water →

Charging Valves – Quantify water – ☐ 1,000 gal →

A/C — 661 Manual — CH-V-8511B — 2' MOV

2114 – 'A' PORV BLOCK OPEN / PORV closed. ✓

2140. –

9:53 pm 'D' 5/6. 1 liter sample. ✓

←(2153). → ← No Activity. →

Tritium still in progress. |←→

✓

10:30. ← Call IRC. ← SDC. →

↕ RCS < 350psig Working toward Start RHR →

260°F 2nd Suction relief for LTOP in-service

A RHR →

2. ☐ EROS – Up Running / Last Update / 7:30. 2 →

when escalated licensee-sensed data.

John Rogge / Don Jackson. 11:00pm.

(26) OSC. staffing → □ Op. Support Center - U-2 RFO
Support if Necessary
ERT - over the night.

2256 - Started 'A' RHR pump for SDC, working to 1 flow to 1,000 gpm Then @ 500 gpm until to 4,000 gpm.

2335 2000 gpm. — 277°F 365 psig
SDC flow. ← 20°F/Hr cooldown →
'A' RHR pump.

Restate: SM. Difficulty → T.

2345 - Final Discussion with IRC, concluded to stand down.
- RHR in-service
- RCS cooldown stable.

Left U-3 Control Room.