

Exam Team rough notes in comparison to opportunities to withdraw rods. Credibility of notes and Lack of documentation exist. C.

Smith typed notes but info can be verified with CCS-047(BATES), CCS-058(MEEKS), NRC-022(CAPEHART) FOR EVENT #3 – 4

- C. Smith stated that she attempted to withdraw rod twice (second time is clearly documented).
- C. Smith stated that the first attempt/request was made after the event #3(TE-130) and was interrupted by event #4 (no notes exist)
- NRC contends that C. Smith had opportunities when she was not involved in the activities addressed by the other crew members (this is not possible because it requires permission from the SS and assistance from the UO to perform a peer check)
- C. Smith did not make attempts according to the examiners because it is not in their notes. Notes missing on all three examiners notes for 8:05 to 8:11 am (was the request omitted on purpose?) This is the timeframe in which event #3 was complete and right before the next failure. The time frame that C. Smith describes happens to have missing data.....
- The notes are not intended to show the comment or step signed off in its entirety, it is to represent the times that notes were taken.

BATES NOTES

0724(14): Crew Take Shift

0727: 2½ Steps (1st Event)

0732: Increase 8-12 MWE

0736: Increase 3 Steps

0743(47): Alarms (2nd Event)

0744: IOA Done

0752(36): Place MFRV 4 to Auto.

0754(52): L & D Divert Alarm (3rd Event)

0755: TE130 “Certainly appeared that Carla made correct diagnosis”

0800: Pull P & ID

0811: NSCW Cooling Fan (4th Event)

0817(42): 3 Steps

0818(17): PZR Pressure Failure

NOTE: Look at the examiners comment here, why would he write a comment like this in his notes about C. Smith

← Last comment for event #3

← Next Event

**11 minute gap in notes –
what was the crew doing?**

MEEKS NOTES

0724(28): Crew Takes Shift
0727(19): AVE/REF 563.63/563.27
0728(40): Rods Increase 2.5 Steps ('^' 157) Raise Turbine Load 8-12 MWE
0736(50): Rods Increase 3 Steps
0739(48): Raise Turbine Load 8-12 MWE (AVE/REF 564.765/563.43)→Look@Time
0743(57): Fault In IOAs SF inst→MFPT speed
0745(00): Update Entering 18001
0745(16): IOA-Step-G1. Check and feed flows-MATCHED ON ALL SGs. (NO) RNO (FAILURE #2)
0746(32): UO-Step-G2. Select an unaffected control channel.
0750(37): UO OATC-Step-G5. Initiate the Continuous Actions Page.
0752(12): UO-Step-G3. Return MFP(s) speed to AUTO.
0753(03): ←Last Thing In #2-UO-Step-G4. Return SG feed flow valves to AUTO-Ask SM. So a phone call was made here.
0754(54): Fault In (FAILURE #3)
0756(08): Goes Through ARP
0802(10): SS direct TIC 130 manual control ← Last comment for event #3
0811(20): Fault In ← Next Event
0818(02): Fault In "Carla, shut that value"(PORV) < 2185#
0818(57): Entering 18001-C
0819(26): OATC-AOP 18001-C, Section C Immediate Actions (IOA)
0820(42): OATC-Step-C2. Check controlling channel-OPERATING PROPERLY. (YES)
0821(07): OATC-Step-C3. Initiate the Continuous Actions Page.
0821(53): OATC-Step-C4. Control PRZR pressure using heaters and sprays-BETWEEN 2220 AND 2250 PSIG.
0823(00): OATC-Step-C5
0824(05): OATC-Step-C7. Select unaffected channels on PS-455F:
0830(50): OATC-Step-C10. Return PRZR pressure Master Controller to AUTO.
0831(25): OATC-Step-C11. Select same channel on PS-455G PRZR PRESS REC SEL as selected on PS-455F
0831: Check P-11 Status
0837: Rods Increase 3 Steps
0839: SS-Directed SPRAYS→Auto

9 minute gap in notes – what was the crew doing?

CAPEHART'S NOTES

0727: 2.5 Step

0732: Increase Turbine Load

0736: Rods 3 Step

0740: Increase 8-12 MWE

0744: Step-Diagnose SG Loop #4 Flow FI-542 has failed high.

(FAILURE #2)

0745: Step-Enters APO 18001-C

0746: Step-G2. Select an unaffected control channel.

0751: Step-G5. Initiate the Continuous Actions Page.

0752: Step-G3. Return MFP(s) speed controls to AUTO.

0752: Step-G7. Notify I & C to initiate repairs.

0753: Step-G4. Return SG feed flow valves to AUTO. (Last Step)

0753: Step-G6. Check SG level control maintains NR level-AT 65%.

(Last Step)

0755: Diagnose TE-0130 has failed low. ALB07-F04 LTDN HX HI TEMP

DEMIN DIVERT. (FAILURE #3)

0756: ARP-Initial Operator Actions (IOA)

0757: ARP-Subsequent Operator Action

0758: Diagnose TE-0130 has failed low. ALB07-B04 (VOLUME CONTROL TANK OUTLET TEMP HI (delayed, or may not come in)

0805: L/D Hi Temp Alarm Cleared.

← Last comment for event #3

0812: OATC-Pulls up a trend on TE 130

← Next Event

0812: UO←Diagnose trip of NSCW Train a Tower Fan #1. ALB36-B02

480V SWGR 1AB15 TROUBLE. Green and amber light on NSCW CT Fan

#1-LIT. (FAILURE #4)

0817: U→S O/S Temp 50°F

7 minute gap in notes – what was the crew doing?

All three examiners
are missing a gap of
time in their notes
– that fits the
timeframe that C.
Smith identifies
that the Control
Rod withdrawal
was attempted

Suspicion of Notes

- Mark Bates notes have no lines on the first page and all other pages have lines (same document)
- Mark Bates has 3/26/2012 on some pages and 3/27/2012 on other pages (see next pages)

03/26/2012 Pg. 1

midnight SR: [redacted] Phil BOP: [redacted]

01:24:14 C-U: 40 shift
27:48 S-C: ↑ 2 Steps
31:33 C-J: we have temp, we can lower turbine (misquote)
32:10 J-R: ↑ 8-12 MW
34:22 J-C: ↑ 3 Steps
43:47 Adams
54 R-J: Failed Steam Flow Int Takes manual control of MFRV & Temp
44:24 R-J: MFRV above
52:11 S-R: MFRV Speed Control returned to auto
52:30 R-J-R: Place MFRV #4 to auto.

54:52 C-S: LD Down Dint ↑ High 40 Temp
55:46 C-T: TE-130 "Actually appeared that we really can't do anything"
[redacted] 3 running the APR. But did not per say BOP.
08:00:30 A: Pulls P #EDs J-C: CR, W, etc.
01:54 C-S: The only thing we can do is control 4T to get to fixed. (X)
02:45 J-C: Take manual control of TIC and monitor Temp: "BOP" (X)
J-C: That raises ↑ turbine temp if she's not op'g ↑ job valve. (The controller is in manual mode & she did not have time to operate it.) (X)
05:00 "1/2" then Temp Down Dint closed.

11:32 A-J: MFRV (Adj. Fan) To, 1000
R-4: AD to the J-R: 1000 but 1/2 Temp without there.

FROM Exhibit CCS-047 pages 75

03/29/2012 Pg. 1

Phil BOP: [redacted]

missed ΔΦ management

03/20/2012 Pg. 2

Heat Valve
"Carles"

03/26/2012 Pg. 2

08:17:42 J-C: ↑ 3 Steps
18:17 C-T: PRR P Failure J-C: Shut That Valve, Carles! She closes PRR given valves but did not close take control. J-C: BV #6 did not close. [redacted] [redacted] (X)
[redacted] may need to look at plots to get timing of PRR closure very specific to PRR values.
22:05 J-C: 2200-2250 P Control Band DAB TS was online
26:05 PRR P rose to 2200 # prior to making corrective to reduce P (she actually started to correctly control P when the band was possible)
34:30 C-T: V&T Temp Ok char. Records positioning valve 129
C: Adjusts PRR Spray in Manual. Temp 104 Spray Valve increase in Manual. She was outside Tower Band lost at data (X)
37:24 J-C: ↑ 3 Steps
40:37 PRR P = 2200# (X)
45:23 Temp = 65 call (Dint/BOP)
[redacted] (X)
48:00 C-T-C: ↑ 3 Steps
41:30 C-S-C: ↑ 3 Steps
53:14 C-S: RWST low level Adams
55:00 C-S: 03.8% RWST low
56:44 J: Mentions 1 new TS

Consider the possibility that the examiners ensured that their notes were consistent by making a comparison and adjusting the notes as need to ensure that the notes were similar

Did a rewrite of some notes occur?

How credible are the notes?

Booth instructed to tell them they can barely differentiate if sludge mix valve position was tripped

09 00 10 C-T-R: Call CT to leaving Me to RESET

02 00 C-T-R: Can't get position of valves, valves in valve gallery room

04 18 J-R: Use camera to check sludge valves. Am in here? Not sure if I have been successful?

05 09 C-T-R: Looks downstream of sludge mix valves

06 47 R-C: Sludge mixing should have isolated on RESET and
C-R: Dismissy, obtaining manual values

08 40 RESET L=86.5%

12 25 C-T-S: Leak is % of ^{sludge} mix valve, but cannot get close to valves.
R-T: Both Sludge Mix Valves closed

15 41 C-S: 86.3% RESET L

16 40 R-C: How do check leak A-R: leak stopped

18 07 above

18 27 R-J: No feed on 5/6 A3

19 17 R: Open B/D Valves

19 45 T: X 1780R

20 14 C-T: Re Trip

20 40 C-S: Re Tripped

21 56 C-S: 3 Shock Tests

22 50 C-S: No SI / not needed

23 47 J-R: Throttle AFW to 150 gpm to make %

24 36 T: X 19001 Re Trip Response

25 06 J-C: Do SFSTs 09 26 15 all Humm (C-S)

26 35 J-R: 60-70% % level trend

26 40 R: Close % B/D Iso closed

29 05 S-L: En Bridge low 13009

Flt 0: 0

Flt 0: 0
2012/03/26

03/26/2012

Pg 3

of sludge mix valve
position verification.

FROM Exhibit CCS-047 pages 77

09 30 19 C: Show 13009 Pg 2

30 44 C: Attempt to open S104 did not open

23 35 J-C: Monitor Pop L @ 25%
C-S: I am losing Para L R-J: 5/6 #3 Trends Changed

34 22 J-R: Iso F/W to 96 #3 and look at level trend

35 45 C-S: Para Level = 16% R-J: 5/6 #3 L

36 15 T: X 19009 R-S

37 20 C-S-C: SI Manual Calibration

37 34 T: X 19000

38 29 T: P.H. SI

40 20 C-S: M CVT / Chat Box

49 13 T: X 19030 SSTR

51 00 C-S: Chat P

51 13 R-T: MSLI C: ADV CTMT

52 40 T: X 19020

59 46 T: X 19030

10 01 23 C: 19030 Seal Inj Flow was initially > 20 gpm/pump.
should it have been controlled via process procedure.

10:08:07 T: X - 19131 ECA-3.1

10:09:00 END OF SCENARIO

Flt 0: 0

03/26/2012

Pg 4

FROM Exhibit CCS-047 pages 78

POST SCENARIO

03/27/2012
Pg 5

Q: Walk me through Test/Trk Control. (Phil - 2.4°F)

A: What was your level? = 2.0°F

Q: What was your max A? = 1.8°F
then 2.3°F

ES: TE-2130 Failure

Q: What procedure guidance was used to manually
central TV-2130. Initially pressed up, but
then cancelled his manipulation & pressed
down.

Q: Walk me thru the diagnosis of plant response.
Demand goes down causing flow through H.V. to become
Perry's acting normally.

ES: PT-456 Failure:

Q: What were your Top Op Actions.
She went the wrong direction on POPV H.V.

Q: What actions did you take. (Made P Control is Auto)
Spray valve still in Manual - is operating.

Q: What the position was spray valve when Made remote?
Spray valve was in manual.

Q: Was the BV inoperable? → Not operable due to not
Auto closing.

Q: What was your P Control Band?

FROM Exhibit CCS-047 pages 79

Q: Walk me thru A of Control. what was your max AB?

what was your target? ± 3.0°F Units (0.2) started at -0.2
Did target change - stayed at 0.2.

03/27/2012
Pg 5

Q: At the end of the scenario seal by air was 2.2ppm. What was
your procedure guidance for controlling S.I. air?
First time flow 7300 the seal air was still in the board.
Q: What occurred to enable seal air to high?
A: 8105 & 2100 alarm could have raised it.
RCS P Demand & Churn ↑
↳ SSTR

FROM Exhibit CCS-047 pages 80