

Joseph Austin

From: Bonser, Brian *RB*
Sent: Tuesday, June 09, 2009 3:46 PM
To: Austin, Joseph; Loo, Wade
Cc: Hamilton, Ruben; Musser, Randy
Subject: RE: Cooling Tower Blow down Well Results for 5/14 (state split sample day)

Joe,
What are the units on these measurements? I don't want to assume anything.

Brian R. Bonser

Chief, Plant Support Branch 1
Division of Reactor Safety, Region II
U.S. Nuclear Regulatory Commission
404.562.4653

From: Austin, Joseph *RB*
Sent: Tuesday, June 09, 2009 1:31 PM
To: Loo, Wade
Cc: Hamilton, Ruben; Bonser, Brian; Musser, Randy
Subject: FW: Cooling Tower Blow down Well Results for 5/14 (state split sample day)

Wade,

Below is the licensee's tritium sample analysis for your comparison with ours, once we receive them.

Please let me know if you have any questions.

Thanks

Joe

From: Austin, Joe [mailto:joe.austin@pqnmail.com] *RB*
Sent: Tuesday, June 09, 2009 1:21 PM
To: Austin, Joseph
Subject: FW: Cooling Tower Blow down Well Results for 5/14 (state split sample day)

From: Robinson, Johnny (Mike)
Sent: Tuesday, June 09, 2009 1:19 PM
To: Austin, Joe; Lessard, Patrick
Subject: FW: Cooling Tower Blow down Well Results for 5/14 (state split sample day)

Joe, Patrick

Here are the sample analysis from the HNP split samples that was performed with the NRC and the State of NC from May 14, 2009. I will be interested in comparisons with the NRC and how they look. The hard to detects will becoming later.

	BDL-MW1	BDL-MW2	BDL-MW3	BDL-MW5	BDL-MW6	BDL-MW7
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W-13

3/4/2009	372	373	1060	1260	1450	<234
3/30/2009	371					
4/8/2009		456	1010	1430	1220	294
5/14/2009	<232	513	994	1100	1580	Unable to sample

Mike Robinson
 E & C Superintendent
 Harris Nuclear Plant
 V-NET 751-2245
 Phone (919) 362-2245

Combined Outfall Cistern #1 results during TLHS-A release on 4/10/09.

The TLHS-A had 20 Ci of tritium and was released from 1140 to at a rate of 26 gpm. Cistern #1 was evaluated every two hours for changes in the water level, as well as, tritium concentration.

Combined Outfall tritium results 4/13/09 2230 = 610,010 pCi/l

Results

Date/Time	Tritium (pCi/L)	Error +/-	Observations
3/30/09	N/A		Water was pumped out and the bottom of the box was sealed. No Radwaste releases from 3/30-4/13/09
4/10/09 1000 (pre release)	5745	+/- 1303	Water level about ¼ inch below the lip of the sampler standpipe. Water was very clear and still
4/13/09 1135 (pre release)	N/A		Water level about ¼ inch below the lip of the sampler standpipe. No indication of water entering or exiting the standpipe
4/13/09 1230 (during release) Sample was Collected. ????????	N/A		Unchanged
4/13/09 1435	5800	+/- 1250	Unchanged
4/13/09 1630	6520	+/- 1370	Unchanged
4/13/09 1830	6870	+/- 1300	Unchanged
4/13/09 2030	5700	+/- 1350	Unchanged
4/13/09 2230	5487	+/- 1288	Unchanged
4/14/09 0540	7410	+/- 1342	Unchanged
4/14/09 1109	85,870	+/- 3195	Steady Flow From Standpipe to Cistern. Cistern Level approximately ¼ "above standpipe
4/14/09 1300	NA		Water level was level the lip of the sampler standpipe. No indication of water entering or exiting the standpipe also observed @ 12:00 by Ryan Welch
4/14/09 1509	NA		Same as 13:00 hours
4/14/09 1710	NA		Same as 13:00 hours

ATTACHMENT 4
Sheet 1 of 2
Facility Change Traveler

FCT Number 103

Authorization Section

Description - (Attachment Yes/No)

The Cooling Tower Blowdown (CTBD) system has air release points (inside air release concrete manholes) established at high points along the 48" diameter CTBD piping. Air release manhole ARS-1 has been allowing unmonitored CTBD effluent to be released into the soil adjacent to the manhole when the effluent drains out of the manhole. This FCT-103 installs a hydraulic cement plug in the 2" diameter cast iron drain line located in the floor of ARS-1. See dwg 7-G-2833 for typical details of these air release system manholes.

Inclusion Test - See attached form

Cautions / Limitations and Required Engineering Reviews - (Attachment Yes/No)

No.	Action
1	10 CFR 50.59 Screen 328/05 330022 8/12/09

Supporting Basis - (Attachment Yes/No)

No.	Basis
1	Engineering Evaluation Billy Pridgen

Engineering/Work Group Reviews - Attach additional instructions / documentation when needed

No.	Signature	Attachment Yes/No	Date
1	None required W.O. Pridgen	N	3/30/09

Requested by (Project Manager)

Facility Change Coordinator Concurrence

W. O. Pridgen 3/30/09

Jin Tatum / Jin Tat 3/30/09



3/30/09

Facility Manager Signature (Approval for Implementation)

Signature indicates that physical work can proceed and changes may be posted as indicated in the Affected Document Section.

ATTACHMENT 4

Sheet 2 of 2

FACILITY CHANGE TRAVELER

FCT Number 103822 4/9/09
Page 2 of 15

Affected Document Section

Affected Document(s)	Revise Y/N	Referenced WO Task
7-G-2833 (Dwg Coord G8)	Y	1525599 + 1531486

Closeout Section

Work Performed

WO, Contract WA or Brief Description of Work
Procedure

W/O 1525599-01	Installed Hyd-Cement 73929010.
W/O 1531486-01	Installed Hyd-Cement 73929010.

Jim Tatum / Jim Tatum

4/8/09

Facility Change Coordinator Signature

Date

Signature indicates that physical changes are complete and the status of this FCT can be changed to "Active." Documentation revision (if required) can be completed.

Facility Manager Signature (Approval of Completed Change)

Date

Signature indicates that all physical changes and drawing revisions are complete. Status of the FCT can be changed to "Closed."

ATTACHMENT 5
Sheet 1 of 1
INCLUSION RULES

2012 4/9/09
Page 3 of 5
FCT Number 103

To continue with the Facility Change Process, all statements below must be true.

	True	False
This change does not impact Safety-Related Systems including potential interactions (seismic/proximity considerations or system interface considerations).	X	
There will be no direct impact to Augmented Quality Systems such as Seismically designed, Radwaste, Radiation Control, Fire Protection/Detection/Barrier, Station Blackout or any support systems for Safety-Related systems.	X	
There will be no impact to environmental qualification (EQ) of components.	X	
There will be no impact to Power-Producing Systems, Structures or Components.	X	
There will be no impact to facilities directly involved in housing, controlling or supporting systems involved in power production or distribution.	X	
Changes do not impact existing Nuclear Security related Systems, Structures or Components (eg. Intrusion Detection System, Protected Area, Defensive Strategy Fences, Vital Area Barrier, Configuration of the Vehicle Barrier System).	X	
These changes do not require chemical or explosive gas storage or movement.	X	
Changes do not impact plant digital SSCs determined to be "critical digital assets" (that is, classified as either "continuity of power" or "nuclear significant") in accordance with the requirements of EGR-NGGC-0157 Section 9.1	X	
There will be no change to site drainage, temporary or permanent, that can affect flooding analysis.	X	
There will be no impact to systems or activities covered by the QA Program Manual.	X	
The change does not have an adverse impact on ALARA.	X	

IF all statements are TRUE:

Refer to the Facility Change Process Screening Matrix, Attachment 6, to determine cautions / limitations and the required reviews for this change.

IF any statement is unclear:

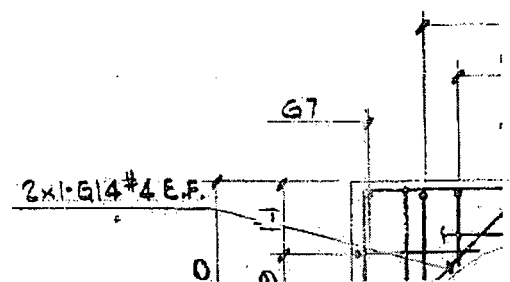
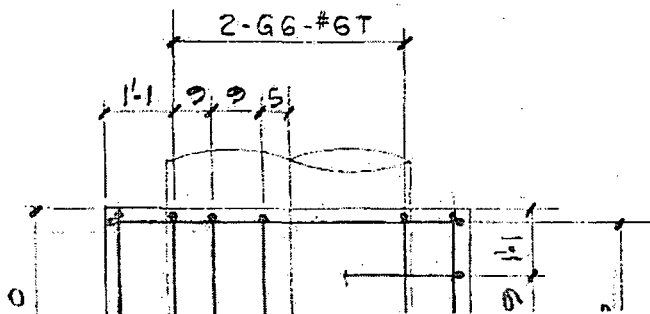
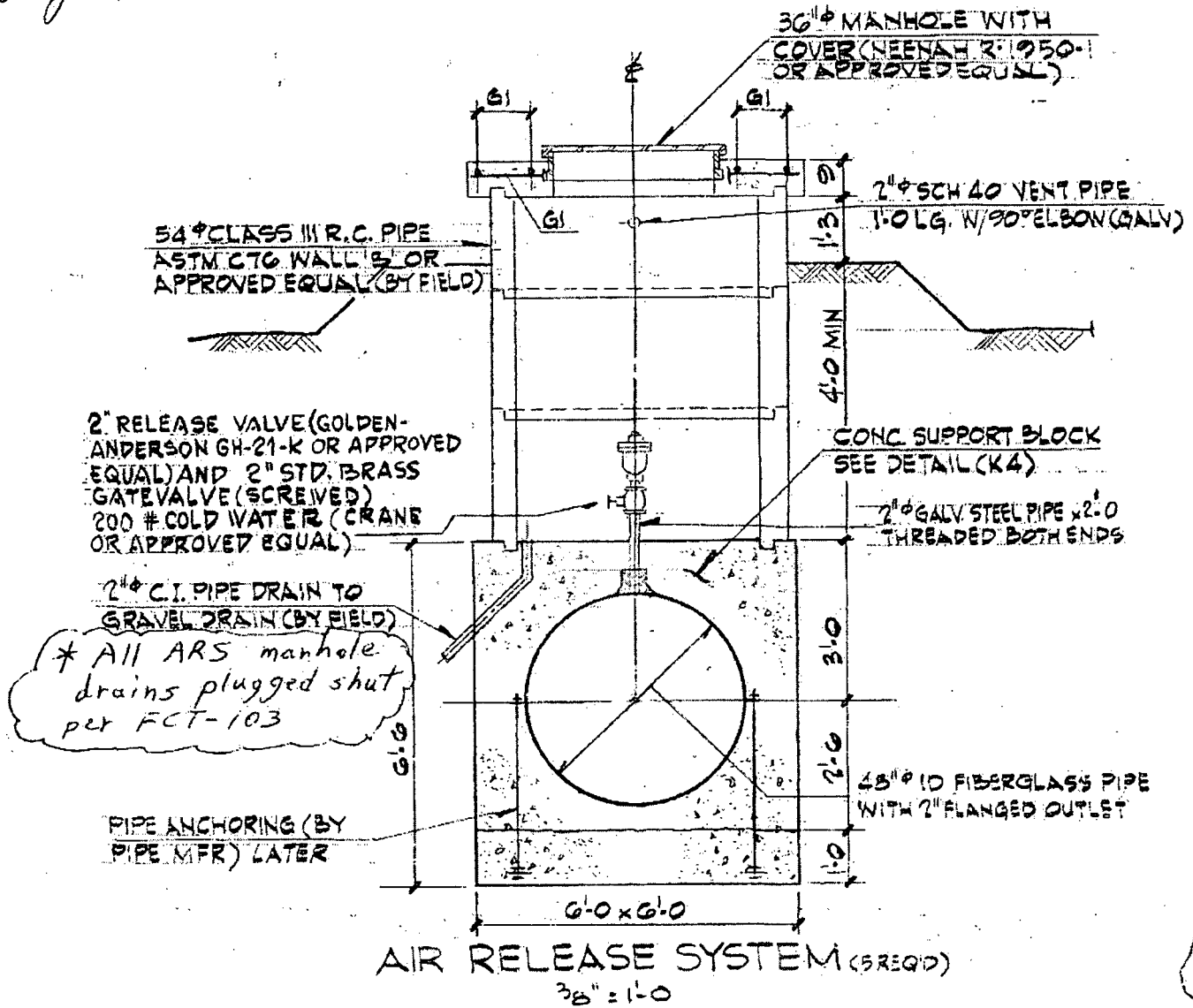
Process an ECR or make a similar request (i.e. email) for engineering clarification.

IF any statement is FALSE:

This process cannot be used. As an alternative, an ECR may be processed to request engineering support. Refer to EGR-NGGC-0005 "Engineering Change".

FCT-103
DWG 7-G-2833

1/4" = 1'-0"



TROUBLESHOOTING CONTROL FORM

Page 1 of 2

1. Work Order Number: 1531486 TCF Rev No. 0 Page 1 of 2
2. System Name and Number: Cooling Tower Blowdown / 4035
3. Extended Troubleshooting Yes ☐ No ☒ (if Yes, the requirements of Section 5.3.2 must be followed)
4. Affected Components: The four air release valves (ARS 2, 3, 4, 5) will be covered during a Rad waste release (maximum flow) to determine if they are allowing effluent to leak into the cisterns.
5. Description: A hydrology study near the cooling tower blowdown line has indicated that plant effluent is entering the backfill space along the buried line (AR 305194 and 328551). This is possible from either a leak in the buried line itself or from one of the air relief valves leaking by, allowing effluent to pass through the cistern into the surrounding backfill. This troubleshooting will verify whether or not the air release valves are functioning or have failed to prevent blowdown effluent from entering the cistern.
6. Special Plant or Equipment Conditions: This troubleshooting plan must be performed during a rad waste release, when the CTBD line is at maximum flow.
7. Troubleshooting Approach: Each of the four air release valves along the cooling tower blowdown will have a plastic bag placed over it. This bag, which will be non-permanent, will aid in determining if the respective valve is leaking or not. The rad waste release lasts approximately 12 hours. During this time if one of the bags is displaced or, once removed, is wet on the inside, that particular valve will be shown to be non-functioning. The air release valves function as high point vents in the line, allowing any accumulation of air to be release and prevent any potential flow restrictions. The line is open on the weir end and is also open at the sample tube penetration at combined outfall sampling station. These two opening prevent any vacuum from forming in the line.
8. Boundaries: The troubleshooting boundaries are the four air release valves along cooling tower blowdown line. None of the air release valves are beyond drop structure 'A'.
9. Expected Plant Response: The bags over the air release valves are secured in such a way that they are not 'suffocating' the valve and effect on their performance is not expected. During the troubleshooting the flow through the blowdown line will be at its maximum and if one of the valves is failed, it will be indicated during this time.
10. Worst Potential Consequence of Activity: All four air release valves show to be failed and leak effluent into the cisterns. This is mitigated by the plugged drain valves in each cistern which will prevent communication of any process effluent to the surrounding back fill.

11. How is this consequence considered in the Technical Specifications, Operating License and/or SAR?

11a. Is system/component OPERABLE ☐ YES ☐ NO ☒ N/A Action Statement: N/A. This is not safety related equipment.

11b. Acceptance Criteria: N/A

12. Troubleshooting Plan Prepared:

AWP Required: ☐ YES ☒ N/A

ALARA Committee Approved: ☐ YES ☒ N/A

Ryan Welch

x2036

AY5

4/13/2009

Name of TL (Print)

Signature

Extension

Work Group

Date

13. RISK LEVEL: (circle determined Risk) HIGH RISK MEDIUM RISK LOW RISK NO RISK

14. Max/Safe Gen: ☐ YES ☐ NO (if YES AND Risk is High or Medium, PGM approval required; otherwise, N/A)

Plant General Manager Approval (signature / Date):

15. NOTE: Refer to the following for required approvals:

HIGH RISK: Implementing Organizations Manager Approval; S-SO Concurrence; Manager - Shift Operations Approval

MEDIUM RISK: Implementing Organizations Responsible Superintendent Approval; S-SO Concurrence (N/A Manager - Shift Operations Approval)

LOW/NO RISK: Implementing Organizations Responsible Supervisor Approval; S-SO Concurrence (N/A Manager - Shift Operations Approval)

IMPLEMENTING ORGANIZATION APPROVAL:

Signature

Title

Date

S-SO CONCURRENCE:

S-SO Signature

Date

Manager- Shift Operations APPROVAL:

Signature

Date

Comments: (note any required Operability Testing here)