R III - 2004 - A - 0047

ll.5

State Change History

Initiate	AR Pre-Screen	Submit to Screening Team	AR Screening Que	Screening Update	AR Screening Que
by SHANNON, DAN	4/5/2004 11:01:04 PM Owner (None)	by HARPER, RON	4/5/2004 11:37:05 PM Owner PBNP CAP Admin	by KREIL, JULIE	4/7/2004 12:40:56 PM Owner BENNETT, KEVIN

⊟ Section 1

Activity Request Id: CAP055366

Activity Type: CAP **Submit Date:** 4/5/2004 11:01:04 PM

One Line Description: Worker Received Electronic Dosimeter Dose Alarm

Detailed Description: 4/5/2004 11:01:04 PM - SHANNON, DAN:
While working in the Unit one containment building during U1R28, a worker exceeded his electronic dosimeter dose alarm setpoint and received a dose alarm. The ED dose alarm level was set at 50 mrem and the worker received 51 mrem. The worker, along with two other workers, were working in containment on the wrong RWP. They were working on RWP 04-161, which is for work in the PAB, and set the ED dose alarm level at 50 mrem. The correct RWP that they should have used is RWP 04-139, for their work in containment, which set the ED dose alarm at 80 mrem. The other two workers did not receive a dose alarm.

Initiator:	SHANNON, DAN	**Initiator Department:**	PR Radiation Protection PB
Date/Time of Discovery:	4/5/2004 10:26:32 PM	**Date/Time of Occurrence:**	4/5/2004 10:26:32 PM
Identified By:	Site-Identified	**System:**	XX PB
Equipment # (1st):	(None)	**Equipment Type (1st):**	(None)
Equipment # (2nd):	(None)	**Equipment Type (2nd) :**	(None)
Equipment # (3rd):	(None)	**Equipment Type (3rd) :**	(None)
Site/Unit:	Point Beach - Unit 1		

Why did this occur?: 4/5/2004 11:01:04 PM - SHANNON, DAN:
Workers used the wrong RWP to perform work in the containment building

Immediate Action Taken: 4/5/2004 11:01:04 PM - SHANNON, DAN:
Suspended RCA access for all three workers involved per NP 4.1.2, Response To Radiation Protection Work Practice Violation. Notified RPM, Shift Outage Manager, and the workers' supervisor.

Recommendations: 4/5/2004 11:01:04 PM - SHANNON, DAN:
1. Workgroup supervisor complete Human Performance Investigation Tool for this event.

2. Workgroup supervisor coach/counsel workers involved involved in this event and make recommendation to RPM regarding restoration of access to the RCA.

Notify Me During Eval?: N **SRO Review Required?:** N

⊟ Section 2

Operability Status: NA **Compensatory Actions:** N

Basis for Operability: 4/5/2004 11:37:05 PM - HARPER, RON:
Not an equipment operability issue.

Unplanned TSAC Entry: N **External Notification:** N

⊟ Section 3

Screened?: Y **Significance Level:** B

INPO OE Reqd?: N **Potential MRFF?:** N

QA/Nuclear Oversight?: N **Licensing Review?:** N

Good Catch/Well Doc'd?: NA

⊟ Section 4

Inappropriate Action:

Process:	(None)	Activity:	(None)
Human Error Type:	(None)	Human Perf Fail Mode:	(None)
Equip Failure Mode:	(None)	Process Fail Mode:	(None)
Org/Mgt Failure Mode:	(None)	Group Causing Prob:	(None)
Hot Buttons:	PB - Human Performance Clock Reset		

⊟ Section 5

CAP Admin:	BENNETT, KEVIN	Prescreener:	(None)
Project:	Corrective Actn Program (CAP) AR	State:	AR Screening Que
Active/Inactive:	Active	Submitter:	SHANNON, DAN
Owner:	BENNETT, KEVIN	Last Modified Date:	4/7/2004 12:41:56 PM
Last Modifier:	KREIL, JULIE	Last State Change Date:	4/5/2004 11:37:05 PM
Last State Changer:	HARPER, RON	Close Date:	
NUTRK ID:			
# of Children:	0		
References:			
Update:			
Prescreen Comments:			
Import Memo Field:			
OPR Completed?:	N		
OLD_ACTION_NUM:			
sub_tsid:	0	original_project_id:	32
original_issue_id:	055366		
Site:	Point Beach		
Cartridge and Frame:			

⊟ Attachments and Parent/Child Links

Human Performance Event Investigation Tool CAP 055366 (307712 bytes) by BECKA, JIM (4/6/2004 4:49:28 AM)

HP Invest Tool CAP 055366 Additional Info (375808 bytes) by BECKA, JIM (4/6/2004 5:24:30 AM)

Principal to ACE001666: Worker Received Electronic Dosimeter Dose Alarm by KREIL, JULIE (4/7/2004 12:41:56 PM)

⊟ Change History

4/7/2004 12:40:56 PM by KREIL, JULIE
CAP Admin Changed From PBNP CAP Admin To BENNETT, KEVIN
Owner Changed From PBNP CAP Admin To BENNETT, KEVIN
Last Modified Date Changed From 4/6/2004 5:24:31 AM To 4/7/2004 12:40:56 PM
Last Modifier Changed From BECKA, JIM To KREIL, JULIE

4/7/2004 12:41:02 PM by KREIL, JULIE
original_issue_id Changed From '' To '055366'
Last Modified Date Changed From 4/7/2004 12:40:56 PM To 4/7/2004 12:41:02 PM
original_project_id Changed From 0 To 32

4/7/2004 12:41:56 PM by KREIL, JULIE
Last Modified Date Changed From 4/7/2004 12:41:02 PM To 4/7/2004 12:41:56 PM
Attachment Added: Principal to ACE001666: Worker Received Electronic Dosimeter Dose Alarm

Human Performance Event Investigation Tool

Step 1 – Initiate the investigation.

Evaluation should begin as soon as possible.
The department manager or designee should ensure that the event is captured in an AR (see NP 5.3.1), and assign a lead person, normally the supervisor of the individual involved in the event, to conduct the investigation/evaluation.

The Department Manager should ensure that the plant manager and the department human performance liaison are aware of the potential human performance event as soon as possible.

The lead person should obtain resources as needed from other areas to conduct the investigation. The human performance coordinator should assist with the investigation when, in the judgment of the lead person, this special expertise is needed to fully understand the event.

Step 2 – Collect Data.

The goal is to assemble the facts in a timely fashion in order to provide sufficient information so that the event can be properly evaluated.

Contact the individual(s) involved in the event.

Focus on the human performance issues.

If more than one person was involved in the event, distribute a copy of the Event Investigation Personnel Statement to each person to complete. Often individuals involved on the fringes of an event have key information. The statement should be completed as shortly after the event as possible. The individual who will prepare the Event Investigation Report should read each statement, confirm understanding with the originator, and clarify any questions they may have.

Collect information about the human performance event using the following questions, as applicable.

- What were the conditions before, during, and after the event?
- Is this an initial or recurring event?
- Have there been any recent program, procedure, or equipment changes that contributed to this event?
- Who was involved and what actions were taken during the event?
- What environmental factors or circumstances contributed to the event? To the extent practical, walk through the event at the location where the event occurred. Have the individual re-enact the event to gain a better understanding of how the physical layout and environmental conditions may have contributed to the issue.
- Was a conscious decision made or not made by the individuals involved?
- Was mental or physical state a factor?

- Is there any physical evidence, recorded information, or plant documentation that would assist in the event investigation/evaluation? (See NMC RCE Manual for examples)
- Which of the following Error Likely Situations were present:

-Peer Pressure	-Distractions/Interruptions	-Multiple Tasks
-Vague or Incorrect Guidance	-Body Rhythm	-Unfamiliar Task
-Ineffective Communication	-Stress (Work or Home)	-Task/Scope Change
-Overconfidence	-Physical Environment	-Time/Sch Time/Schedule Pressure

- Which of the following Error Reduction Tools were not used or not used effectively (A description of the Individual and Leadership tools are found in Attachment C.)

Individual Tools

-STAR	-Placekeeping	-Co-Worker Coaching
-Procedure Use and Adherence	-Verbal Communications	-Peer Checking
-"Are You Ready?" Checklist	-Stop When Unsure	-Challenging Information

Leadership Tools

-Standards and Expectations	-Pre-Job Brief	-Post-Job Critique
-Observations		-TWIN Analysis

- Which of the previously listed error reduction tools could have been used to prevent this event from happening?

Step 3 – Evaluate the data and report the results of the investigation/evaluation.

The lead person for the investigation/evaluation should use the Event Investigation Report of this attachment to report the results. This report in its entirety should be attached to the action request unless it contains sensitive personnel information.

Provide a copy of the completed report to the department CAP liaison so that he/she can code the event.

Step 4 - Provide feedback.

- Provide timely feedback to individuals during the course of reconciling issues. As a rule, do not go longer than one week without contact unless previously agreed upon.
- Generally, respond verbally to verbal issues, in writing to issues raised in writing.
- Express appreciation to all individuals involved in the investigation.

Event Investigation Report

Complete the evaluation of the human performance event using the following, as applicable:

1. Date and Time of the event: _05 APR 2004 / 2200_____
2. Personnel Involved: [redacted]
NDE technicians employed by Lambert, McGill, and Thomas (LMT). (Note: Supervised on night shift during U1R28 by [redacted] also of LMT)_____
3. Department/Group Involved: Indirectly: Programs Engineering / NDE. Directly: Contract NDE personnel.
4. Program/Work Process/Activity Involved: Non-Destructive Evaluation (NDE) of Charging and Spray lines in U1 containment under WOs 0303882 and 0303887.
5. Unit: PBNP Unit 0 *PBNP Unit 1* PBNP Unit 2
6. Mode/Power Level: _Mode 5 – Cold Shutdown_____
7. Describe the inappropriate action and conditions that led up to the event. Consider the following in this description:
   a. Was a conscious decision made or not made by the individual(s) involved?
   b. Was the event a result of rule non-compliance, misapplication of a rule, or applying an incorrect rule?
   c. Was the individual fully trained/knowledgeable of the task?
   d. Did the individual make an error in judgment?
   e. Was an intended action not performed due to shortcuts taken or inadequate tracking?
   f. Was the individual overconfident or was their mental/physical state a factor?
   g. Did the supervisor not identify error likely situations and error precursors?
   h. Was there a process or organizational failure that led to this error (see table on next page)?

   As stated in the written statement attached to this evaluation, the three individuals cited above were assigned work in Unit 1 Containment at approximately 1830 on 05 APR 2004. WOs 0303882 and 0303887 specified UT and VT ISI examinations of Charging and Containment Spray lines on the 26' level of Unit 1 containment. In preparation for this job, the individuals needed to proceed to the calibration cage in the PAB 66' fan room to calibrate equipment needed. All individuals signed onto RWP 04-161, covering work in the PAB. RWP 04-161, "PAB NDE & ISI ACTIVITIES," has the following limits: Stop Work, 1 R/hr; Dose Rate Alarm: 200 mR/hr; Dose Alarm: 50 mR. None of the individuals recall the conversation with the RP technicians at the RP station upon entering the RCA at the turnstiles.

During the course of the calibration work, one of the workers [redacted] needed to exit the RCA to retrieve documentation needed for the calibration work. Upon re-entering the RCA at the turnstiles, an RP tech at the RP station questioned where he was going. He stated he was heading to the 66' fan room and then into containment. The RP tech questioned which RWP he was on – he stated "161" (PAB). The RP tech acknowledged this with a nod, and [redacted] proceeded back to the fan room.

At approximately 2030, the three techs proceeded into Unit 1 containment at the 66' level, proceeded to the 26' level, identified components, received a brief from a female RP technician (recalled name [redacted] and began the job. Note that entry into containment for work entails entry onto a different RWP, RWP 04-139.

** * [redacted] THIS WAS THE FIRST INAPROPRIATE ACTION – ENTRY INTO A WORK AREA ON THE WRONG RWP. Applicable limits for RWP 04-139. "CTMT NDE & ISI ACTIVITIES." are as follows: Stop Work, 1 R/hr; Dose Rate Alarm: 700 mR/hr; Dose Alarm: 80 mR. The inspections entailed work atop temporary scaffolding. They worked in the area for approximately 1.5 hrs.

The workers recall that they were very conscious of their accumulating dose during the course of the work, and their (perceived) dose limit of 50 mR. (NOTE: Had they been on the appropriate RWP, their dose limit would have been 80 mR).

** [redacted] was tracking the highest accumulated dose of the three individuals as work proceeded, and as work was wrapping up at approximately 2200, [redacted] s * EPD alarmed at the 50 mR set point.

[redacted] and the others were aware that [redacted] dose was tracking close to the limit as work was finishing up. However, [redacted] reasoned, in the interest of ALARA, that it was better to stay in the area and finish the job, than exit early and have to come back later to retrieve equipment. He made the conscious decision to risk receiving the dose alarm on the reasoning that less overall dose would be accumulated through this action than if he exited in anticipation of receiving the alarm. THIS WAS THE SECOND INAPPROPRIATE ACTION. *

After receiving the dose alarm, [redacted] left U1 containment at the 26' elevation and reported to the RP station. The other two workers secured equipment and exited containment through the 66' elevation, also reporting to the RP station. RP management questioned the three individuals, initiated CAP 055366, and requested that NDE supervision and the Programs Engineering Supervisor, night shift, conduct a stand-down and brief all NDE technicians on the event, as well as conduct a Human Performance Event Investigation Tool synopsis of the event (iaw NP 1.1.10, "Human Performance Program"). RP management restricted RCA access for the three individuals pending completion of these actions.

[redacted] the Programs Engineering Supervisor, night shift, and [redacted] the NDE supervisor, night shift, conducted the stand-down brief at approximately 2300. (Note: The following individuals were briefed: [redacted]

[redacted] The Programs Engineering Supervisor, night shift, then interviewed the

three individuals using the guidance of the Human Performance Event Investigation Tool.

Lastly, after a final meeting between the three individuals, their supervisor, the Programs Engineering Supervisor, and Dan Shannon, RP General Supervisor, Radiation Support, the three individuals were re-authorized for RCA work at approximately 0045, 06 APR 2004. 7.

7.a. Was a conscious decision made or not made by the individual(s) involved?

First Inappropriate Action: No.

Second Inappropriate Action: Yes, for reasons described in the narrative above.

7.b. Was the event a result of rule non-compliance, misapplication of a rule, or applying an incorrect rule?

First Inappropriate Action: No.

Second Inappropriate Action: Yes – rule non-compliance, for reasons described in the narrative above.

7.c. Was the individual fully trained/knowledgeable of the task?

First Inappropriate Action: Yes. All individuals were aware that there were two different RWPs for the different areas of the plant. They travel to many different plants to work, and experience similar RP practices and administration at other sites. However, at other sites, they have also experienced physical, or personnel (posted RP tech) – type barriers, which act as a second check to an individual's personal responsibility to be on the proper RWP.

Second Inappropriate Action: Yes, through the Radiation Worker portion of General Access Training (GAT).

7.d. Did the individual make an error in judgment?

First Inappropriate Action: No..

Second Inappropriate Action: Yes, for reasons described in the narrative above.

7.e. Was an intended action not performed due to shortcuts taken or inadequate tracking?

First Inappropriate Action: No.

Second Inappropriate Action: No.

7.f. Was the individual overconfident or was their mental/physical state a factor?

First Inappropriate Action: Yes. All individuals were very experienced in the type of work they were performing during this shift. They admit to some overconfidence in doing this job, and a factor of repetition enters as they have conducted these types of exams thousands of times. Nonetheless, they also state that they were very focused on the job, and getting it done, perhaps to the exclusion of focus on administrative issues also required for proper job completion. Mental state doesn't appear to me to be a factor based on my questioning of them – all individuals are very professional, want to do a good job.

are somewhat embarrassed by this event, can't recall the last time any of them made a mistake of this nature, and are genuinely contrite in their speech and actions. Physical state may be a minor factor - [redacted] the least experienced of the three individuals, is on his second night shift, and states feeling some minor fatigue. The other two individuals are on their third night shift, and don't believe fatigue was a factor.

17c

Second Inappropriate Action: No.

7.g. Did the supervisor not identify error likely situations and error precursors?

First Inappropriate Action: No. During supervisory pre-job briefings, the "Are You Ready?" checklist is utilized, among other discussions. The applicable RWP for the job location is emphasized, not the areas that workers may need to be in prior to the going to the work site. According to the supervisor, he has never briefed a job as requiring two RWPs to be completed – that just is not done at PBNP. Focus is always on the job site, as was the case with this issue.

Second Inappropriate Action: Not covered during pre-job brief. This was covered during initial brief of the crew coming on site for outage work, conducted by Patrick Turner of the PBNP NDE Group.

7.h. Was there a process or organizational failure that led to this error (see table on next page)?

First Inappropriate Action: Possibly. The interviews reveled that there were two opportunities for human intervention on the part of questioning at the RP station upon entering the RCA. The individuals cannot recall what was stated at the first opportunity, when all three individuals first entered the RCA. The second opportunity, after one of the workers exited and then re-entered the RCA, offered a good chance for RP to intercede – but it was missed.

Additionally, there were no physical or human barriers present at the entrance to either the 26' or 66' containment airlocks to prevent entrance on the wrong RWP, or to remind personnel to be signed into the CTMT RWP vice the PAB RWP.

Second Inappropriate Action: No. Radiation worker training emphasizes proper management of dose exposure, and conservative decision-making in real time with regard to dose received.

8. Summarize the inappropriate action in one sentence as follows:

_____ did _____ instead of _____

(WHO) (WHAT) (THE REQUIREMENT)

as found in _____ because _____

(Where the Requirement is found) (WHY if known)

First Inappropriate Action: Three contract NDE technicians conducted radiation work in the Unit 1 containment during U1R28 under the RWP for PAB work instead of the RWP for Containment work, as required by NP 4.2.19, "General Rules for

Work in a Radiologically Controlled Area." Section 4.3, Radiation Work Permits (RWPs)

Second Inappropriate Action: A contract NDE technician intentionally allowed his radiation dose to approach and exceed the (perceived, although wrong) dose limit for the RWP under which he was working in the Unit 1 containment during U1R28, instead of exiting at an earlier opportunity, as required by NP 4.2.27, "Personnel Exposure Monitoring Device Minimum Requirements and General Use." Step 3.7.1 states that the worker is to ensure that the exposure accumulation does not exceed that authorized by the RWP. In this case the RWP (although the wrong one) limit was 50 mrem (per entry).

9. Based on what you have learned, describe the error likely situations that were present at the time of the event.

    1. Overconfidence.
    2. Multi-tasking

    a. What Error Reduction Tools were not used or not used effectively? What Error Reduction Tools could have been used to prevent this event? Clearly state which is the one tool, which if used, would have had the greatest chance of being successful.

        1. STAR
        2. Peer Checking

    b. Are these Error Reduction Tools going to provide the barriers to prevent recurrence? Where else should these barriers be applied?

        Yes – however, other barriers may want to be considered by management, as employed at other nuclear sites

Human Performance Failure Modes (From the NMC Trend Code Manual)

- Inattention ↑
- Distracted & Interrupted ↓
- Time & Schedule Pressure ↓
- Spatial Disorientation ↓
- Inadequate Motivation ↓
- Unfamiliar or Infrequent Task ↓
- Inadequate Knowledge of Standards ↓
- Inadequate Knowledge of Fundamentals ↓
- Inadequate Verification ↑↑
- Bored ↓
- Multi-Tasking ↑
- Fear of Failure ↓
- Mindset/Preconceived Idea
- Shortcuts Taken ↓
- Misdiagnosis ↓
- Flawed Analytical Process or Model ↓
- Over Confident ↑
- Cognitive Overload ↑

- Inadequate Tracking (Place Keeping) ↓
- Habit/Reflex ↑
- Imprecise Communication ↓
- Work Around ↓
- Tired & Fatigued ↑
- Lapse of Memory ↑
- Wrong Assumptions ↑
- Tunnel Vision ↑

Process Failure Modes (From the NMC Trend Code Manual)

- Critical Actions Not Verified ↑
- Excessive Verifications
- No Process Monitoring
- Only Monitoring Problems
- Person Specified Not Able to Perform Task.
- More Than One Person Specified to Perform Task
- No One Specified to Perform Task
- No Acceptance Criteria

Organizational Failure Modes (From the NMC Trend Code Manual)

- Inadequate Prioritization
- Inadequate Trust
- Inadequate Self Assessment
- Inadequate Planning
- Inadequate Teamwork
- Inadequate Program Management
- Inadequate Span of Control
- Inadequate Communication among Organizations
- Inadequate Communication within an Organization
- Lack of Commitment
- Inadequate Knowledge
- Inadequate Emerging Issues Management
- Insufficient Staffing
- Inadequate Levels in Organization

Event Investigation Personnel Statement

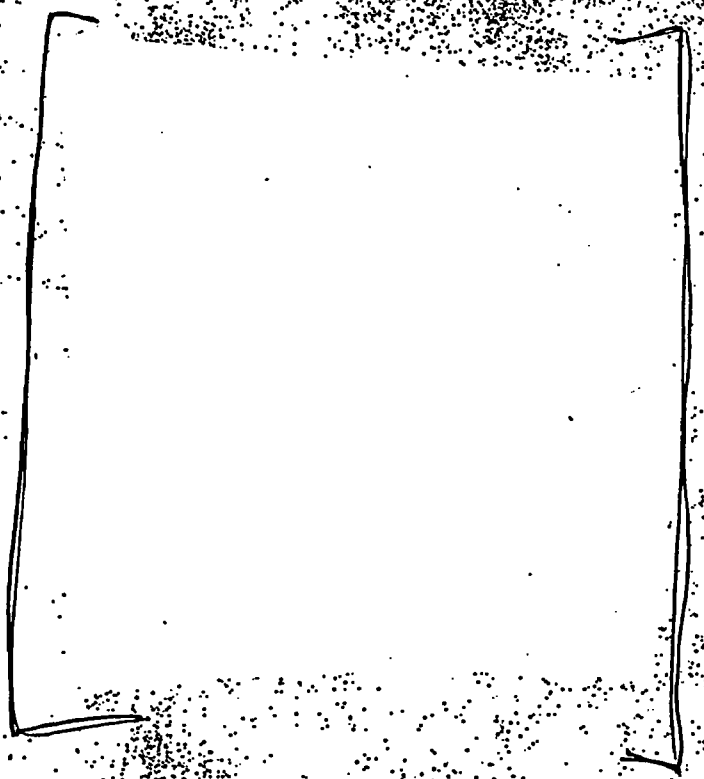
Name: _____

Position: _____

Event Date: _____

Handwritten statements are acceptable. Include the plant conditions prior to the event, your indications that a problem existed, your action as a result of those indications, noted equipment malfunctions or inadequacies, and any identified procedure deficiencies. Also, include any information you consider important to the review of this event and actions that may prevent recurrence. Use additional paper as necessary.

The following is a attendance list for a stand down meeting for CAP055366. This meeting took place on April 5, 2004 at 2300.



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Event Investigation Personnel Statement

Name: [redacted]] 7C

Position: IST / LMT

Event Date: 4-5-04

Handwritten statements are acceptable. Include the plant conditions prior to the event, your indications that a problem existed, your action as a result of those indications, noted equipment malfunctions or inadequacies, and any identified procedure deficiencies. Also, include any information you consider important to the review of this event and actions that may prevent recurrence. Use additional paper as necessary.

ON 4-5-04 @ approx 18:30, [redacted] were ~~Entered~~ 7C

Assigned work in Unit 1 Containment. WO orders 0303882, 0303887. In order for this job to be completed, Calibration of Equipment Needed to happen on 66' IN Calibration cage in Fan Room. Entrance was made on RWP 04-161. ~~After approx 2 hours, Calibrations~~ During this Time [redacted] 7C

Left to come out to LMI Trailor, to recieve a Document for Completion of Calibration. Upon Returning to 66' Level [redacted] 7C

was questioned By RP About were he was going, he informed RP he was heading To 66' Fan Room and then into Containment. RP questioned ~~him~~ ~~of~~ About which RWP, he Stated "161", the RP Acknowledge him with a Nod, and [redacted] Continued BACK to Fan 7C

Room. AT Approx. 20:30 we proceeded into Containment at 66' Level. We proceeded to Level 26', ~~[illegible]~~ Identified components, Recieved a Brief From Female RP [redacted] who gave 7C

us Dose Rates. ~~and~~ We proceeded in a timely manner to complete JOBS. ~~[illegible]~~ At Approx 22:00 the JOB was complete, [redacted] Alarm went off. [redacted] Finished Packing up Equipment. [redacted] Left out 26' Elevation, [redacted] Left through 66' ~~[illegible]~~ After 7C

Securing Equipment

ACS Entry By Task/RWP

Start Interval: 04/05/2004 00:00
End Interval: 04/05/2004 23:59

Task #: 04161-1 Task Description: NDE & ISI ACTIVITIES
RWP #: 04161 RWP Description: PAB NDE & ISI ACTIVITIES

Name	Entry Time	Exit Time	Time In RCA	Max Rate (mrem/hr)	Dose (mrem)	Neutron (mrem)
[redacted]	04/05/2004 01:35:29	04/05/2004 01:36:30	0:01	0	0	0
	04/05/2004 01:37:29	04/05/2004 02:06:39	0:29	0	0	0
	04/05/2004 18:54:10	04/05/2004 22:04:00	3:09	108	51	0
	04/05/2004 01:36:12	04/05/2004 02:06:50	0:30	0	0	0
	04/05/2004 01:36:34	04/05/2004 02:07:18	0:30	0	0	0
	04/05/2004 18:54:37	04/05/2004 22:08:43	3:14	111	43	0
	04/05/2004 02:23:27	04/05/2004 02:32:35	0:09	0	0	0
	04/05/2004 23:54:06	04/06/2004 00:01:37	0:07	0	0	0
	04/05/2004 18:54:34	04/05/2004 22:08:50	3:14	72	20	0
				Total For Task (mrem):	114	0
				Grand Total For Task (mrem):	114	

47/C

POINT BEACH NUCLEAR PLANT

RADIOLOGICAL SURVEYS

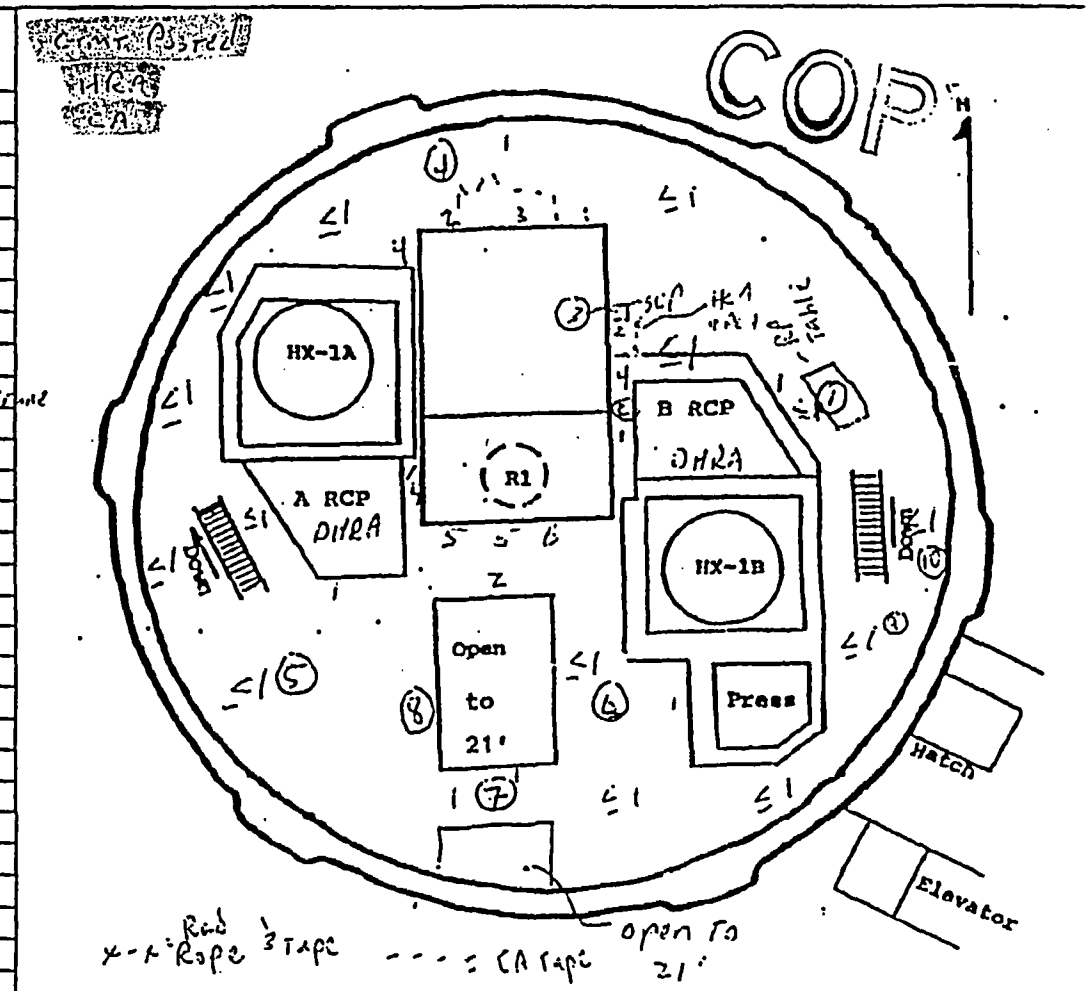
LOCATION: UNIT 1 CONTAINMENT, EL. 66' Bkg = 250 cpm

DATE 4-3-04 INSTRUMENT TYPE RSO5 / RM-14 PURPOSE: ☒ Daily Survey ☐ Pre-RWP

TIME 23:15 SERIAL NO. 7337 / 7340 ... 7430 ☐ RWP # _____ ☐ Other _____

MONITOR J. Lancaster / P. Gray COUNTED BY J. Lancaster / P. Gray REVIEWED BY: _____

NO.	MREM/ HR	βγ DPM/ 100 CM²	αDPM/ 100 CM²	REMARKS
1	See Map	≤ 1K		Floor
2		≤ 1K		
3		≤ 1K		
4		≤ 1K		
5		≤ 1K		
6		≤ 1K		
7		≤ 1K		
8		≤ 1K		Stud Caps
9		≤ 1K		Floor
10	↓	≤ 1K		Tool Box Typ Posted



Area 1C-1

PBF-4021
Revision 0 01/01/93
HP 1.9

Notes:
1) All readings in mrem/hr
2) *Designates hot spots
3) ⊗Designates routinely updated posting
4) "Potential Hazards" identified are indicated on map

POINT BEACH… …LEAR PLANT
RADIOLOG… …SURVEYS
LOCATION: UNIT 1 CONTAINMENT, EL. 66'

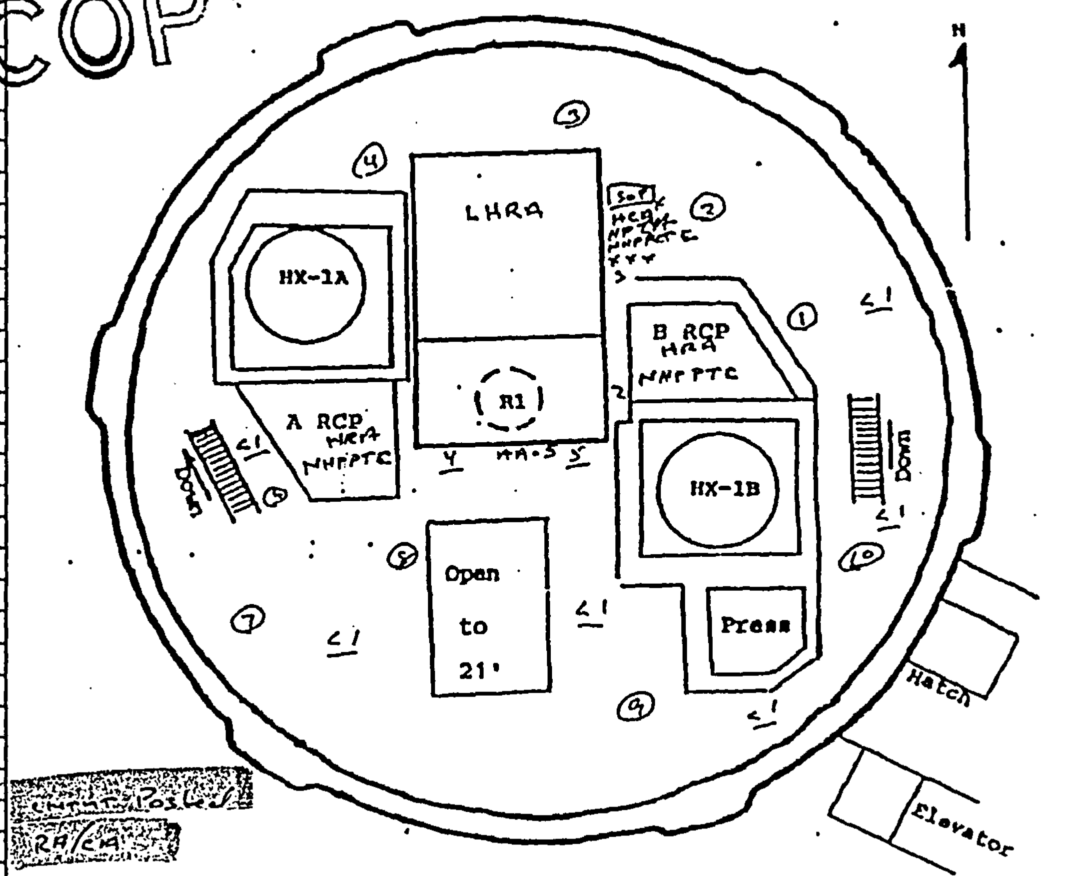
DATE 4-4-04
TIME 0830
MONITOR K. Culver / DALE KENNEDY

INSTRUMENT TYPE RO-2 / Abacus
SERIAL NO. 4003 / 7687/7687
COUNTED BY K. Culver DALE KENNEDY

PURPOSE: ☐ Daily Survey ☐ Pre-RWP
☒ RWP # 04-1004 / ☒ Other ~~4167~~ 4137A
REVIEWED BY: [signature]

NO.	MREM/ HR	βγ DPM/ 100 CM²	αDPM/ 100 CM²	REMARKS
1		≤ 427 MDA	≤ 33 MDA	Floor
2		↓	↓	↓
3				
4				
5		↓		↓
6		477		Hand rail
7		≤ 427 MDA		floor
8		↓		↓
9				
10		↓	↓	Drain

N/A



Area 1C-1

PBF-4021
Revision 0 01/01/93
HP 1.9

Notes: 1) All readings in mrem/hr
2) *Designates hot spots
3) ⊗Designates routinely updated posting
4) "Potential Hazards" identified are indicated on map

POINT BEACH NUCLEAR PLANT
RADIOLOGICAL SURVEYS

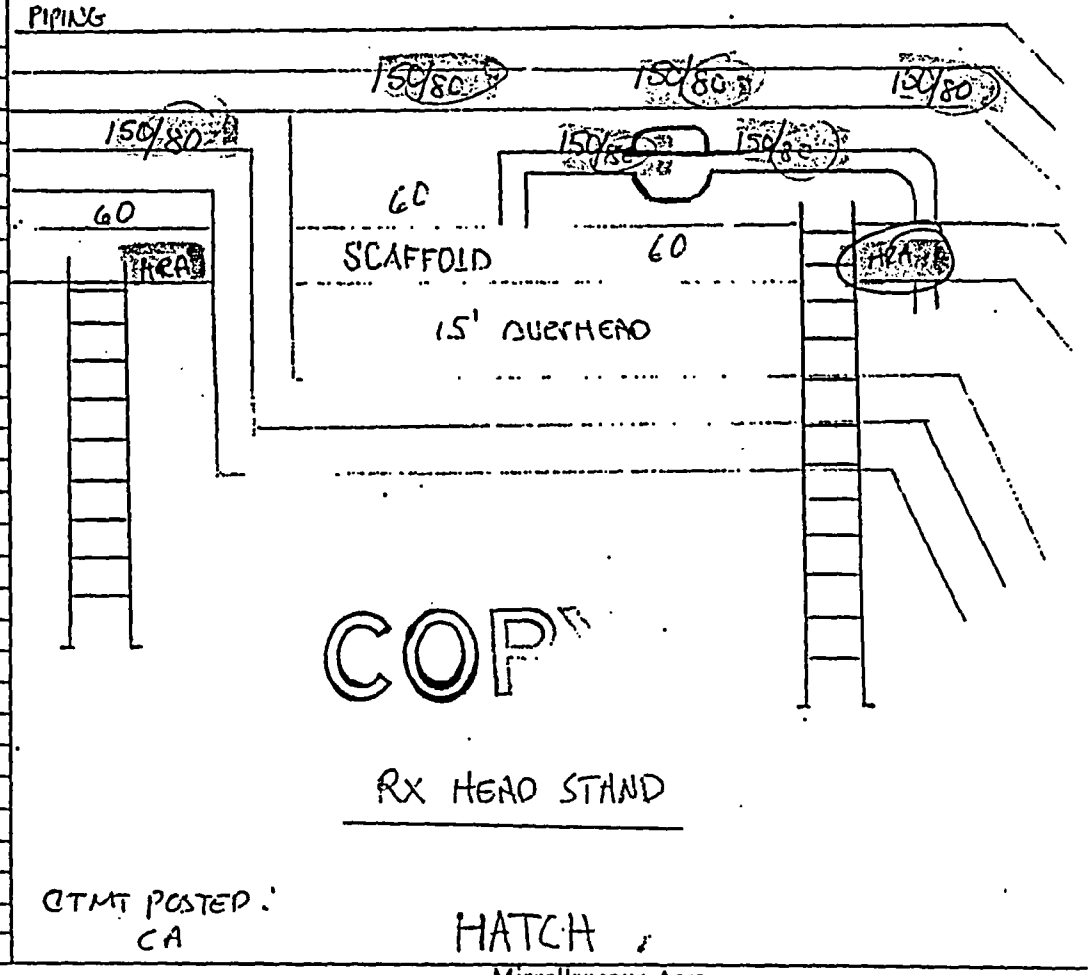
LOCATION: U1 CTMT 21

DATE: 2/10/04
TIME: 0630
MONITOR: R. Deschamps

INSTRUMENT TYPE: RO-2
SERIAL NO.: A005
COUNTED BY: NA

PURPOSE: ☐ Daily Survey ☐ Pre-RWP
☒ RWP # 04104 ☒ Other Verify Dose Rat
REVIEWED BY: MAbbott

NO.	MREM/ HR	βγ DPM/ 100 CM²	αDPM/ 100 CM²	REMARKS
1*	See MAP.			



Miscellaneous Area 1C3

PBF-4021
Revision 1 01/01/93
HP 1.9

Notes:
1) All readings in mrem/hr
2) *Designates hot spots
3) ⊗Designates routinely updated posting
4) "Potential Hazards" identified are indicated on map