12 pages Total

To: John Cassidy
Fax (630) 515-1249

From: Joe Sturdavant

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AA-1

Draft Only

FENOC COMMUNICATIONS AND INFORMAL NOTIFICATIONS GUIDANCE FOR INFORMAL NOTIFICATIONS TO STATE AND LOCAL OFFICIALS UNDER THE NUCLEAR ENERGY INSTITUTE INDUSTRY INITIATIVE ON MANAGING SITUATIONS INVOLVING INADVERTENT RADIOLOGICAL RELEASES INTO GROUNDWATER

Situation Analysis: In late 2005, the Nuclear Regulatory Commission (NRC) and the nuclear industry identified groundwater tritium as an emerging issue, though neither entity could specify the scope of the issue. Subsequently, several nuclear plants identified groundwater tritium issues or potential issues, including Exelon's Braidwood Plant in Illinois. None of the incidences of tritium found in groundwater on site or off site at these plants exceeded limits set by the NRC and none posed a significant increase in risk to the environment or the public. Nonetheless, in the interest of maintaining strong credibility and relations with local communities, the industry and FirstEnergy Nuclear Operating Company (FENOC) adopted a zero-tolerance standard for unplanned releases of tritium at commercial nuclear power facilities. Also, FENOC will continue its policy of keeping local officials, the news media and the public apprised of any plant-related activities that might significantly impact the environment or public, or appear to do so.

The purpose of this guidance is to provide uniform criteria to the FENOC nuclear fleet, which is consistent with the current draft Nuclear Energy Institute (NEI) guidance, regarding implementation of the Nuclear Energy Institute Industry Initiative on Managing Situations Involving Inadvertent Radiological Releases into Groundwater (Industry Initiative). This Industry Initiative, which is being implemented by all U.S. nuclear utilities, contains requirements for documenting groundwater sample results and spills or leaks into groundwater and for making formal and informal communications to state and local officials and to the NRC. NEI is in the process of finalizing guidance on these aspects of the Industry Initiative.

It is emphasized that the intent of this guidance applies to conditions or situations that are inadvertent, unexpected and unplanned/unmonitored. This guidance does not apply to conditions or situations that are expected, planned and monitored as authorized effluent releases in accordance with the Offsite Dose Calculation Manual (ODCM). This guidance also does not apply to leaks or spills from systems that are considered non-contaminated systems such as Pressurized Water Reactor (PWR) secondary and auxiliary systems not impacted by active or residual primary-to-secondary leakage or cross-contamination from other radioactive sources.

Objective:
Execute, as necessary, a strategy as laid out in this plan for ensuring local communities and other key audiences are informed of any significant groundwater tritium issues at FENOC facilities.

Goals:

- Monitor external interest, particularly by news media, in the tritium issue.

FENOC COMMUNICATIONS AND INFORMAL NOTIFICATIONS GUIDANCE FOR INFORMAL NOTIFICATIONS TO STATE AND LOCAL OFFICIALS UNDER THE NUCLEAR ENERGY INSTITUTE INDUSTRY INITIATIVE ON MANAGING SITUATIONS INVOLVING INADVERTENT RADIOLOGICAL RELEASES INTO GROUNDWATER

- Keep abreast of actions FENOC and the industry are taking to manage and respond to tritium issues, i.e., monitoring groundwater, preventive measures to prevent unplanned releases of radioactive materials, etc.
- Should an issue emerge at a FENOC facility, take pre-emptive action to inform the audiences listed below.

Audience Identification:

- FENOC and FE employees
- FE Legal, Investor Services and senior FE executives
- Local, state and federal officials and agencies (see Appendix A)
- NEI and other industry groups
- Area news media

Messages:

- Note: While the following messages are general in nature, more specific messages would be developed to address a specific tritium issue, such as was done for Perry.
- FENOC sites do not have the kind of tritium issue that occurred at Braidwood.
- FENOC sites adhere to the industry guidelines for monitoring and preventing unplanned spills of water containing tritium.
- In 40 years of commercial operation, no U.S. nuclear plant has released tritiated water that has posed a significant increase in risk to the environment or the public.
- Tritium traces in groundwater related to nuclear plant operations have never exceeded the NRC limits of one microcurie per liter of water.
    - If an individual drank ½ gallon of water containing one microcurie of tritium per liter every day for a year, the radiation dose would equal 50 mrem, or about 1/6th of the 300-350 mrem of exposure Americans get from the natural sources in the environment.
    - By way of perspective, one transcontinental airplane flight exposes passengers to 4 mrem, as does eating one potato a day for a year.

Strategies, Tactics & Timeline:

- Participate in Morgan Lewis teleconference seminar – Tritium: Managing the Regulatory and Litigation Challenges – Nuclear Communications, 4-06.
- Ongoing participation on NEI Executive Task Force on Community Relations and Incident Response which is charged with developing initiatives to better keep local officials updated on plant operations and issue. – Nuclear Communications.
- Confer with Regulatory Affairs at each site re: past spills, reported or unreported - Nuclear Communications, completed 5-06.

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- Draft communication plan re: the tritium issue – Nuclear Communications, drafted 11-06.
- Discuss issue with Area Managers at each facility to determine the level of knowledge and interest among local elected officials – Nuclear Communications, ongoing, but initial contact was 7-06.
- In the event of an unmonitored tritium release from a FENOC facility, develop specific talking points as was done for Perry in April 2006 and inform government officials and agencies using telephone contact list for each specific plant
- Identify and have on reserve third-party tritium expert – Nuclear Communications.

Issues/Opportunities:

- The class action suit filed in federal court on behalf of 14,000 residents near the Braidwood plant has sensitized regional news media, regulators and tort attorneys to the tritium issue.
- The above-mentioned suit also has sensitized the industry to the issue, enabling a pre-emptive approach to managing it.
- While at this time, there seems to be little interest in this issue among local officials near FENOC facilities, such activities as drilling groundwater test wells on site, or testing the drinking water of local residents could spark interest in the nearby communities, particularly with the news media. It will be imperative to inform and educate local officials regularly, but especially prior to any highly visible activities.

Cost/Benefit Analysis:

- Initially, any cost associated with managing this issue, from a communications perspective, will be feathered in to the FENOC normal budget. A long and highly visible communications campaign sparked by a spill or by inordinate media interest could increase costs.

- The benefit of keeping local officials informed of our activities was proved time and again during the extended outage at Davis-Besse. Those benefits include maintaining high credibility and support from local officials and the communities and a greater likelihood of heading off a dramatic backlash like the one at the Braidwood Plant.

Measurement:

Measurement of effectiveness of this plan includes achieving the milestones and an ongoing analysis of the response by local officials, the communities and news media regarding any tritium event our one of our sites.

FENOC COMMUNICATIONS AND INFORMAL NOTIFICATIONS GUIDANCE FOR INFORMAL NOTIFICATIONS TO STATE AND LOCAL OFFICIALS UNDER THE NUCLEAR ENERGY INSTITUTE INDUSTRY INITIATIVE ON MANAGING SITUATIONS INVOLVING INADVERTENT RADIOLOGICAL RELEASES INTO GROUNDWATER

FENOC FLEET INFORMAL NOTIFICATIONS GUIDANCE

Condition 2.1

"Document all onsite groundwater sample results and a description of any significant onsite leaks/spills into groundwater for each calendar year in the Annual REMP Report[1], beginning with the report covering the calendar year 2006;"

Implementing Guidance:

i. The required reporting elements contained in the Industry Initiative, which are effective beginning July 31, 2006, will be reflected in the appropriate plant procedures.

1. Communications elements will be incorporated into the appropriate procedures by July 31, 2006.
2. Changes to the ODCM and/or other plant procedures necessary to implement the annual reporting requirements will be completed in a timeframe to support submittal of the 2006 data in the 2007 reports.

ii. The information required by the Industry Initiative will be documented as follows:

1. All onsite and offsite groundwater sample results taken in support of the Industry Initiative will be documented.
   a. Sample results that are from groundwater wells which are described in the ODCM as part of the REMP, should be reported in the Annual Radiological Environmental Operating Report.
   b. Sample results that are from groundwater wells that are not described in the ODCM as part of the REMP should be reported in the Annual Radioactive Effluent Release Report.
2. A description of all spills or leaks that have been communicated to State and local officials per 2.1 and 2.3 of the Industry Initiative shall be included in the Annual Radioactive Effluent Release Report.

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[1] The reporting guidance provided herein incorporates recommendations provided by the RETS/REMP Steering Committee for reporting via the Annual Radiological Environmental Monitoring Report or the Annual Radioactive Effluent Release Report, as appropriate for the sample and circumstances. The RETS/REMP Steering Committee recommendation has been endorsed by NEI.

3. Any dose calculations that need to be performed as a result of releases from the site must be included and described in the Annual Radioactive Effluent Release Report.

Condition 2.2

"Submit a 30-day report to the NRC for any water sample result for onsite groundwater that may be used as a source of drinking water that exceeds the criteria in the licensee's existing REMP for 30-day reporting of offsite water sample results. Copies of the written 30-day reports for both onsite and offsite water samples will also be provided to the appropriate State agency".

Implementing Guidance:

i. All groundwater samples taken for the Industry Initiative will be analyzed and compared to the standards and limits contained in the station's REMP/ODCM. A written 30-day NRC report is required for all sample results (either onsite or offsite) that exceed the REMP/ODCM reporting criterion and could potentially reach a source groundwater that is used as a source of drinking water or, if not currently used as drinking water, is potable and therefore could potentially become a future source of drinking water.

ii. The initial discovery of groundwater contamination greater than the REMP/ODCM criterion is the event documented in a written 30-day report. It is not expected that a written 30-day report will be generated each time a subsequent sample(s) from the same "plume" identifies concentrations greater than the REMP/ODCM criterion. However, after a notification has been made, a significant adverse change of conditions from those previously measured should be communicated to State and local officials and the NRC.

iii. All written 30-day NRC reports generated under item 2.2.i are to be concurrently forwarded to the designated state/local officials.

Condition 2.3

"Make informal notification as soon as practicable to community relations representative and appropriate State/Local officials, with follow-up notification to

the NRC, as appropriate, regarding significant[2] onsite leaks/spills into groundwater (see Item 2.1) and onsite or offsite water sample results exceeding the criteria in the REMP (see Item 2.2)."

Note: The informal notification specified in the Industry Initiative refers to a communication between the station and the State/Local officials per the criteria specified within this initiative. It does not take the place of any notifications required under any other existing State or Federal requirements or regulations.

Implementing Guidance:

i. Communication by communications staff to designated State/Local officials (See Table A) will be made **within 24 hours** of recognition if an inadvertent unmonitored leak or spill to the environment that has or can potentially get into groundwater[3] and it exceeds one of the following criterion:

   1. A leak or spill from a radiologically contaminated source that exceeds 100 gallons; OR
   2. A leak or spill from a radioactively contaminated source for which the volume cannot be quantified or be reasonably bounded at less that 100 gallons; OR
   3. If actual analysis (of any spill or leak) indicates activity exceeding 2,000 picocuries per liter tritium or gamma emitters (per NUREG-1301 or 1302) or 2 picocuries per liter of Sr-90 in accordance with drinking water standards.

ii. Notification by Communications to designated State/Local officials (See Table A) will be made **within 24 hours** of recognition for water sample results if:

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[2] "Significant" as used in the Industry Initiative is intended to be defined in part as what is of interest to the public. It is not intended to imply or refer back to regulatory terminology nor is it intended to connote that the leak or spill has public health and safety or environmental protection consequences.

[3] A spill or leak has the potential to reach groundwater if:

1. the spill or leak is into, onto, or will reach a pervious land surface, or subsurface strata overlying groundwater
2. the spill or leak is into onsite groundwater or surface water hydrologically connected to groundwater
3. the spill or leak is into a system, conveyance or structure (i.e. storm water drainage, unlined basin, buildings/ sumps, etc.) that openly discharge or has communication to groundwater or surface water hydrologically connected to groundwater.

1. A water sample from offsite groundwater or surface water exceeds the reporting criterion for water provided in the REMP/ODCM.

2. A water sample from an onsite groundwater monitoring well or surface water that is hydrologically connected to groundwater exceeds the reporting criterion for water in the REMP/ODCM.

iii. Provide a 4-hour non-emergency event notification to NRC, as appropriate, pursuant to 10CFR50.72(b)(2)(xi) for the communication of events described above. The four hour clock starts with the first communication with State/Local officials.

Note: Recent NEI guidance, based on their discussions with NRC, indicate that certain NRC staff agree that informal communications with State and Local Officials under the Industry Initiative may not require a formal notification under 10CFR50.72(b)(2)(xi).

However, since NRC also indicated that no changes in the NRC 50.72 guidance is contemplated, FENOC notifications should be made in accordance with current plant processes and procedures.

Additional Considerations

i. All communications/notifications (formal or informal) required by the Industry Initiative are in addition to and not in lieu of any formal notifications required under any federal, state or local regulatory requirements. However, it is not necessary to notify a state or local official more than once if he/she has been or will be notified within the same general timeframe under the formal notification process.

ii. In order to coordinate the communications to state and local officials with the appropriate NRC notification requirements (i.e. 10 CFR 50.72(b)(2)(xi)), the communications will normally be made by the plant. However, the plant may request that responsible individuals in the corporate office, such as site Community Representatives, etc. make the notifications when coordination and compliance with the appropriate NRC reporting requirements can be assured.

iii. When communicating to the State/Local officials, be clear and precise on quantifying the actual release information as it applies to the appropriate regulatory criteria. Put it in perspective.

iv. It is suggested that each station review their site specific action plan with the designated State/Local officials and clearly articulate:

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1. "Why" the action plans were put in place, i.e. industry events.
2. Past events that would have triggered this communication.
3. Ask if there is additional information that the State/Local officials need to better understand the issue.
4. Gain an understanding of "what" the State/Local officials will do with the information.

iv Ensure all conditions are properly reviewed, documented and maintained in accordance with the requirements of 10CFR50.75(g).

Approved: _____ Date: _____

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APPENDIX A
NOTIFICATIONS UNDER THE NUCLEAR ENERGY INSTITUTE INDUSTRY INITIATIVE ON MANAGING SITUATIONS INVOLVING INADVERTENT RADIOLOGICAL RELEASES INTO GROUNDWATER

Condition 2.3 of the Nuclear Energy Institute Industry Initiative on Managing Situations Involving Inadvertent Radiological Releases into Groundwater requires that notification be made as soon as practicable to appropriate State/Local Officials, with follow-up notification to the NRC, as appropriate, regarding significant onsite leaks/spills into groundwater and onsite or offsite water sample results exceeding the criteria in the REMP. However, discussions with State officials have indicated that notification be made within 24 hours of 2.3.i and 2.3.ii criteria.

Use the following table as guidance for the communications required under the Industry Initiative

	Beaver Valley (BV)	**Davis Besse (DB)**	**Perry (PY)**
STATE OFFICIALS	**CONTACT THIS AGENCY FIRST USING ONE OF THE FOLLOWING CONTACT TELEPHONE NUMBERS.** 1. Commonwealth of PA Division of Nuclear Safety: Office: 717-787-2163 Cell: [redacted] (b)(6) Ex 6 Pager: [redacted] (b)(6)	**CONTACT THIS AGENCY FIRST. The telephone number provided below is monitored on a 24-hour basis.** 1. State of Ohio Radiological Branch Chief: 614-889-7150	**CONTACT THIS AGENCY FIRST. The telephone number provided below is monitored on a 24-hour basis.** 1. State of Ohio Radiological Branch Chief: 614-889-7150

FENOC COMMUNICATIONS AND INFORMAL NOTIFICATIONS GUIDANCE FOR INFORMAL NOTIFICATIONS TO STATE AND LOCAL OFFICIALS UNDER THE NUCLEAR ENERGY INSTITUTE INDUSTRY INITIATIVE ON MANAGING SITUATIONS INVOLVING INADVERTENT RADIOLOGICAL RELEASES INTO GROUNDWATER

	Beaver Valley (BV)	Davis Besse (DB)	Perry (PY)
LOCAL OFFICIALS	Beaver County 24-hour emergency number: 724-775-0880 Columbiana County 24-hour emergency number: 330-424-7255 Hancock County 24-hour emergency number: 304-564-4100 Shippingport Mayor: (b)(6) (home phone) 24-hour emergency numbers are staffed at all times. The person receiving the call would then contact the appropriate emergency management personnel in all counties.	Ottawa County Commissioners: 419-734-6700 Ottawa County Emergency Management Agency: 419-734-6900 Lucas County Emergency Management Agency: 419-213-6505	Lake County Administrator: Office: 440-350-2749 Cell: (b)(6) Lake County Emergency Management Director: Office: 440-350-5455 Home: Cell: Pager: (b)(6) Lake County Health Commissioner: Office: 440-350-2555 Cell: (b)(6) North Perry Village Mayor: Office: 440-259-2222 Cell: Home: (b)(6) Perry Village Mayor: Office: 440-259-2671 Home: (b)(6) Geauga County Emergency Management: Office: 440-285-9200 Ashtabula County Administrator: Office: 440-576-3747 Ashtabula County Emergency Management: Office: 440-576-9148 Cell: (b)(6) Added since meeting with OH

Ex 6

FENOC COMMUNICATIONS AND INFORMAL NOTIFICATIONS GUIDANCE FOR INFORMAL NOTIFICATIONS TO STATE AND LOCAL OFFICIALS UNDER THE NUCLEAR ENERGY INSTITUTE INDUSTRY INITIATIVE ON MANAGING SITUATIONS INVOLVING INADVERTENT RADIOLOGICAL RELEASES INTO GROUNDWATER

	Beaver Valley (BV)	Davis Besse (DB)	Perry (PY)
			locals on 01/25/07: Ashtabula Health Commissioner Ray Saporito Office: 440-576-6010 Cell: (b)(6) Ashtabula Disease Surveillance Specialist Jay Becker Office: 440-576-3023, ext 125 Cell: (b)(6)
NRC	NRC Resident and/or regional representative, as appropriate As appropriate pursuant to 10CFR50.72(b)(2)(xi)	NRC Resident and/or regional representative, as appropriate As appropriate pursuant to 10CFR50.72(b)(2)(xi)	NRC Resident and/or regional representative, as appropriate As appropriate pursuant to 10CFR50.72(b)(2)(xi)
FENOC Internal Notifications	*RP Supervisor/RPM *Chemistry Supervisor/Manager *Site Duty Manager *Site Nuclear Communications *Fleet Duty Manager	*RP Supervisor/RPM *Chemistry Supervisor/Manager *Site Duty Manager *Site Nuclear Communications *Fleet Duty Manager	.*RP Supervisor/RPM *Chemistry Supervisor/Manager *Site Duty Manager *Site Nuclear Communications *Fleet Duty Manager

CONDITION REPORT

CR Number 03-02360

TITLE: EVALUATE OPERATING EXPERIENCE 15788 FOR RELEVANCE TO DAVIS-BESSE

ORIGINATION

DISCOVERY DATE	TIME	EVENT DATE	TIME	SYSTEM / ASSET#
3/25/2003	N/A	3/25/2003	N/A	070-01 N/A

EQUIPMENT DESCRIPTION Spent Fuel Pool Leak Detection System

FLOC System	FLOC

DESCRIPTION OF CONDITION and PROBABLE CAUSE (If known) Summarize any attachments. Identify what, when, where, why, how.

OE 15788 describes a condition at Salem where the leakage detected by their SFP leak detection system gradually diminished to zero over time. Salem uses a system of tell-tale drains similar to that used at Davis-Besse. After workers got contaminated on their shoes, investigation found a "calcium like substance" adhearing to the wall of the room adjoining the Spent Fuel Pool. It was discovered that the leak detection system had pluged with boron over time and caused the water to accumulate until it migrated to other locations.

Operators who have performed DB-SP-04400, Spent Fuel Pool, Fuel Transfer Pit, and Cask Pit Leak Detection System Test, over the years, remember getting measurable leakage from various points. Most of those points now have little or no leakage. There have also been accumulations of boron crystals on the ends of the leak detection piping. Some of the valves have had work requests written as the boron crystals made the valves difficult to operate. A contamination area has existed for a long time on the south wall of #1 ECCS room with what appears to be boron crystals.

In summary, Davis-Besse appears to have all the same signs that Salem had of a plugged SFP Leakage Detection System. Leak Detection data should be evaluated for decreasing trends over the years.

IMMEDIATE ACTIONS TAKEN / SUPV COMMENTS (Discuss CORRECTIVE ACTIONS completed, basis for closure.)

N/A

QUALITY ORGANIZATION USE ONLY		IDENTIFIED BY (Check one)		ATTACHMENTS
Quality Org. Initiated	☐ Yes	☑ Individual/Work Group	☐ Self-Revealed	
Quality Org. Follow-up	☐ Yes ☐ No	☐ Supervision/Management	☐ Internal Oversight / ☐ External Oversight	☐ Yes ☑ No

ORIGINATOR	ORGANIZATION	DATE	SUPERVISOR	DATE	PHONE EXT.
PURK, R	OPS	3/25/2003	PHILLIPS, T	3/25/2003	8282

CONDITION REPORT

CR Number 03-02360

TITLE: EVALUATE OPERATING EXPERIENCE 15788 FOR RELEVANCE TO DAVIS-BESSE

PLANT OPERATIONS

SRO REVIEW	EQUIPMENT OPERABLE	OPERABILITY ASSESSMENT REQUIRED	ORG. NOTIFIED	IMMEDIATE INVESTIGATION REQUIRED	ORG. NOTIFIED	MODE CHANGE RESTRAINT
☑ Yes ☐ No	☐ Yes ☐ No ☑ N/	☐ Yes ☑ No		☐ Yes ☑ No		☐ Yes ☑ No

MODE	ASSOCIATED TECH SPEC NUMBER(S)	ASSOCIATED LCO ACTION STATEMENT(S)
N/A	N/A	#1 N/A
		#2
		#3

DECLARED INOPERABLE (Date / Time)	REPORTABLE?		APPLICABLE UNIT(S)
N/A	☐ Yes ☑ No	One Hour N/A	☑ U1 ☐ U2 ☐ Both
	☐ Eval Required	Four Hour N/A	
		Eight Hour N/A	
		Other N/A	

COMMENTS

From the description as provided by the originator it appears that DB has some of the indications that Salem experienced. Based on this an evaluation needs to be performed to determine if DB has the same problem as identified in the OE. As stated by the originator the north wall in the ECCS rm 1 has a boron buildup. No buildup of boron has been noticed on the accessible portions of the remaining 3 walls, however the south wall of the SFP is partially covered by the backfill on the outside of the Auxiliary Bldg. If it is determined that the same condition exists at DB as has occurred at Salem then leakage thru the concrete of the south SFP wall needs to be assessed. If the evaluation determines that this conditions exists at DB another CR needs to be written to determine operability/reportability.

Current Mode - Unit 1	Power Level - Unit 1	Current Mode - Unit 2	Power Level - Unit 2
5	0	N/A	N/A

SRO - UNIT 1	SRO - UNIT 2	DATE
Keller, L	Bonnett, W	3/26/2003

CRPA / SUPV / MRB

CATEGORY / EVAL	ASSIGNED ORGANIZATION	DUE DATE
NF	PES	3/30/2004

TREND CODES Process / Activity / Cause Code(s)			Comp Type / ID (If Cause T or W)	Cause Org
HDW	3450	NA		NONE

REGULATORY

REPORTABLE? ☐ Yes ☑ No ☐ LER No.

REPORTABILITY REVIEWER Bless, A

DATE 03/27/03

INVESTIGATION OPTIONS	CLOSED BY	DATE
☐ Maint.Rule ☐ OE Evaluation		11/18/2004

Site: G201

CORRECTIVE ACTION

NOP-LP-2001-05

CR Number: 03-02360

ORIGINATOR

CR Category:	Action Type:	Schedule Type:	CA Number:
NF	(M) Work Order	(A) Normal Work Management	1

Corrective Action Type:	Cause Code:	Resp Org:
(PR) Preventive Action	(NA) Not a Deficiency	WOCR

Description:

Implement Order 200057114 to verify the SFP, Cask Pit and Fuel Transfer Pit leak collection isolation valves, SF99A through SF99U (located on the 545' elev of Aux Bld) are not clogged with boric acid. If necessary clean and/or replace the valves.

Completed By:	Organization:	Date:	Phone:	Attachments:
MURTHA, M	PES	9/26/2003	7747	☐ Yes ☑ No

ACCEPT

If a Refueling Outage is required, Enter the Refueling Outage number:	Other Tracking #	Corrective Action Due Date:
N/A	200057114	10/2/2003

Approval: (Enter Name and Sign)	Section:	Date:
MISSIG, D	OMWC	9/29/2003

QUALITY

Quality Organization Approval:	Date:

IMPLEMENTING ORG

Response:

NOP-LP-2001, Condition Report Process, step 4.1.10 permits CAF's for CR's categorized as NCAQ to be closed to other tracking systems as applicable. Closing this NCAQ CAF to order 200057114.

Corrective Action Implementation Date: 9/29/2003

☑ Signature indicates Corrective Action complete:
Completed By: MISSIG, D Date: 9/29/2003

☐ Signature indicates verification for SCAQ CRs:
Verified By: Date:

☑ Enter Name and Sign:
Implementing Organization Approval: RING, L Date: 9/30/2003

QUALITY VERIFIER

Comments:

Approval: Date:

Site: G201

CORRECTIVE ACTION

NOP-LP-2001-05

CR Number: 03-02360

ORIGINATOR

CR Category:	Action Type:	Schedule Type:	CA Number:
NF	(V) Other	(A) Normal Work Management	2

Corrective Action Type:	Cause Code:	Resp Org:
(ES) Evaluation Support	(NA) Not a Deficiency	DBPE

Description:

PES to develop a plan and supporting actions (CAs, Orders, POs, etc.) necessary to obtain the appropriate number, size, location of soil samples to confirm there is or is not any evidence of contamination in the soil due to leakage of the SFP or CP. Should leakage be detected a further CR will be generated in accordance with procedure NG-DB-00244, Radioactive Material Control Program, section 6.2.10. This section deals with contamination in and around the facility to ensure that the requirements of 10CFR50.75(g) are met.

Completed By:	Organization:	Date:	Phone:	Attachments:
MURTHA, M	PES	2/25/2004	7747	☑ Yes ☐ No

ACCEPT

If a Refueling Outage is required, Enter the Refueling Outage number:	Other Tracking #	Corrective Action Due Date:
N/A	N/A	12/31/2004

Approval: (Enter Name and Sign)	Section:	Date:
MCALLISTER, A	DBPE	2/25/2004

QUALITY

Quality Organization Approval:	Date:

IMPLEMENTING ORG

Response:

Summary:

Based on the results of the testing, and in comparison with other routine sample results, there is nothing to indicate that there is or has been leakage from either the Spent Fuel Pool (SFP) or the Cask Pit (CP) to the environment. No further actions are needed. Nothing need be generated in accordance with procedure NG-DB-00244, Radioactive Material Control Program, section 6.2.10. This section deals with contamination in and around the facility to ensure that the requirements of 10CFR50.75(g) are met.

Details:

An industry seminar was attended in May to discuss the issues relating to leaking fuel pools. There were several utilities that made presentations concerning their experiences in leaking fuel pools and the resulting environmental testing and remediation efforts. The primary species that is spread when there is a leak of fuel pool water to the environment is tritium (H-3). Based on the information learned from this industry meeting, the plan for Davis-Besse (DB) was to determine if ground water in the vicinity of the south wall of Auxiliary Building (where this wall forms part of the outer wall of the SFP and CP) showed elevated levels of tritium.

Plant Engineering conducted a review of available sample points and testing methods in order to obtain the appropriate number, size, location of samples to confirm there is or is not any evidence of tritium contamination in the soil. DWG C-30 and C- 2 indicate that there is an existing well just to the south of this wall, approximately 75' away at the end of the Wet Wash Facility. This is an ideal location as there would be a minimal travel distance for any possible tritiated water. Discussions were then held with Chemistry to determine how to obtain the sample and how to test it.

A sample was drawn from the well and tested on site. The results were inconclusive as the values measured were at the minimum detectable levels of the site's equipment. A portion of this sample was sent off-site and tested by Environmental Inc. (See scanned results). The values were 667+/-112 pCi/L and 728+/-104 pCi/L.

Other water samples in and around Davis-Besse have been tested in the past for tritium levels and occasionally have shown elevated levels. The 2000 Annual Radiological Environmental Operating

Site: G201

CORRECTIVE ACTION

CR Number: 03-02360

NOP-LP-2001-05

Report provided an in-depth historical discussion of these results. For example a beach well (T-7) near DB tested 960 pCi/L in 1980 while a sample from the lake between the well and DB was tested at 2,737 pCi/L. The report also put these values in perspective of the EPA drinking water guidelines (10CFR141) where 3,000,000 pCi/L is the Maximum Permissible Concentration (MPC).
The values from the well near the Auxiliary Building are substantially below those measured at other plants with known fuel pool leakage. For example, at the decommissioning of Connecticut Yankee they initially detected 143,000 pCi/L of tritium in the soil below the basemat. Further testing was performed and numerous wells drilled at various locations and depths. They found tritium plumes that extended out away from the plant structures that were 3,000 pCi/L up to 45,000 pCi/L. (ref. May 19, 2004 industry meeting at MPR Associates on SFP leakage scanned attachment).
Based on the tritium values from the ground water near the south wall of the Auxiliary Building compared to other plants that have had leaks and with other water samples in and around DB there does not appear to be leakage from the SFP or CP.
NOTE: This response has been reviewed with Radiation Protection and with Enviromental and both concur with the conclusion.

Corrective Action Implementation Date: 11/2/2004

☐ **Signature indicates Corrective Action complete:**

Completed By: MURTHA, M **Date:** 11/2/2004

☐ **Signature Indicates verification for SCAQ CRs:**

Verified By: **Date:**

☐ **Enter Name and Sign:**

Implementing Organization Approval: PARKER, M **Date:** 11/2/2004

QUALITY VERIFIER

Comments:

Approval: **Date:**

NOP-LP-2001-09	**Corrective Action Due Date Extension**	Site: G201

CR #: 03-02360	CA #: 2	Requested Due Date: 12/31/2004
Extension Number: 1		Category: NF

Reason for Extension:

Additional time is needed to research the existince of existing wells in the vicintiy of the Aux Building. Use of existing wells will save the company time and money over drilling new wells to obtain water samples.

Justification:

Based on the trending of our installed leak collection drains, it appears that leakage of the pools is being captured. There is a rubber membrane on the outside of the Aux Building to keep ground water from entering the building. This would also work to keep any leakage through the wall from the inside from getting out to the ground water. Based on this, a delay in developing the inspection actions should not impact any system, structure or component.

Requestor: MURTHA, M	Requestor Date: 6/28/2004

QA Comments:

QA Acceptance*:	Acceptance Date:	☑ Accept ☐ Reject
Approver: HENGGE, C	Approver Date: 6/29/2004	☑ Accept ☐ Reject

*NA if CR is not identified for QA follow-up