

**UTILITY RADIOLOGICAL SAFETY BOARD OF OHIO  
MEETING MINUTES  
JULY 9, 2007**

Mr. Mel House, Operations Division Director of Ohio Emergency Management Agency called to order the July 9, 2007 meeting of the Utility Radiological Safety Board of Ohio at 1:30 p.m.

The first order of business was roll call, taken by Ramona Hauenstein.

**I. ROLL CALL**

EMERGENCY MANAGEMENT AGENCY	MR. MEL HOUSE
DEPARTMENT OF HEALTH	MR. MICHAEL SNEE
DEPARTMENT OF AGRICULTURE	MR. ANTHONY MITCHELL
PUBLIC UTILITIES COMMISSION	MR. DAN FISHER
ENVIRONMENTAL PROTECTION AGENCY	MS. CINDY HAFNER
DEPARTMENT OF COMMERCE	MR. DEAN JAGGER

A quorum was declared.

**II. READING OF THE APRIL 9, 2007 MINUTES (ADOPTED)**

Mr. Dean Jagger of the Public Utilities Commission made the motion and Mr. Anthony Mitchell of the Department of Agriculture seconded to dispense with the reading of the minutes. Motion passed. Mr. House asked if there were any additions or deletions to the minutes. Mr. House asked for a motion to approve the minutes. Mr. Dean Jagger of the Department of Commerce moved to adopt the minutes and Mr. Mitchell seconded. The motion was carried.

**III. OLD BUSINESS**

**A. Updated Status of URSB Initiatives**

Ms. Carol O'Claire reviewed the Working Group Initiatives headed by Ohio EMA that have been revised. A full participation exercise was conducted on May 15<sup>th</sup>, 2007 with a dry run on April 17<sup>th</sup>. The EOC was fully activated with 19 state agencies. There were no Deficiencies for the state or counties. There were no Areas Requiring Corrective Action (ARCAs) identified for the state of Ohio or Lucas County. There were two ARCAs identified for Ottawa County, one remains unresolved and one was successfully redemonstrated. The unresolved one was regarding a survey meter used for determining contamination that had not been calibrated. The draft report has been received. The Reactor Oversight Program matrix is included in the packet to be reviewed. The two "white" findings under mitigating systems at Perry are closed as is the one at Beaver Valley under Emergency Preparedness. The Working Group, along with FENOC, will begin an evaluation of available dose assessment software in July of 2007. EPA is conducting Radiological Assessment Team (RAT) training in October and has invited the other state agencies to participate. Davis-Besse continues the independent assessments

URSB Statutory Minutes  
July 9, 2007

required by the confirmatory action letter. There was a Demand for Information regarding the Exponent Report and subsequent reports sent from the NRC to FENOC on May 14. FENOC responded by June 14. There was a public meeting on June 27 and both EMA and ODH listened through a conference line. This will be discussed by the NRC and FENOC later in today's meeting.

Perry had been in Column 4 of the Reactor Oversight program, was moved back to column 1 and then was moved to Column 2 due to equipment problems. An NRC Supplemental Inspection will be conducted/

Technology in viaatCurrently there is no plant data link from Beaver Valley to the state EOC. Ohio is currently pursuing resolution of this issue with West Virginia and Pennsylvania. PNPP identified connection problems with CADAP on September 20<sup>th</sup>. Ohio EMA is in the process of establishing a new type of connection (Virtual Private Network- VPN) to obtain CADAP data. Teletrix equipment has been purchased for training of first responders. Plume Tracker, which is a software training program for the Field Monitoring, has been recommended by State personnel and agreed to by FENOC.

Ohio has contracted with Global Dosimetry, who is NVLAP accredited to process and supply thermoluminescent dosimeters (TLD's) for state emergency workers.

The State Radiological Emergency Preparedness (REP) Plan for Nuclear Power Plants requires modification to become NIMS compliant by January 2008. Ohio EMA will continue to revise the plan in accordance with NIMS as inconsistencies are discovered. The current (2007) revision of the REP Plan has been forwarded to FEMA for review and we are awaiting comment.

The comprehensive review for Beaver Valley was conducted on May 22-23. This is the last of the FENOC plants. No reports have been received for any of the plants.

Davis-Besse ANS self assessment will be conducted the week of October 1<sup>st</sup>. The URSB working group will monitor the results.

There will be a threat based drill at the Perry Nuclear Power Plant on September 12. This is a joint initiative between NEI and the nuclear industry. It has not yet been determined what level of participation the state will have.

Mr. Steve Helmer reviewed the initiatives lead by the Ohio Department of Health (ODH).

The state dose assessment is old and in need of upgrading. ODH has been using RASCAL unofficially. FirstEnergy has expressed interest in being involved in the discussion during the consideration and selection of a new dose assessment program. There will be a conference call on July 11 regarding this issue.

ODH continues to work toward getting unescorted access for a few, key people. The expiration date for the KI for the public that was ordered from the NRC has been extended for two (2) years until 2009. This is explained on the ODH KI website. ODH ordered KI from the NRC for the emergency workers and institutionalized. They will be

URSB Statutory Minutes  
July 9, 2007

repackaging this KI -- approximately 80,000 tablets, 11,800 packages with 7 tablets each and 1 insert. This will take place the week of August 15. They will also assist Ohio EMA with distribution.

Mr. Anthony Mitchell reported for the Department of Agriculture. The Agriculture Brochure has been reviewed and input from the farmers added. It was approved and will be sent out in about two (2) weeks.

On the ground water contamination, EPA reported that a protocol on notification of groundwater issues has been proposed and reviewed by State agencies. Final comments have been submitted to FENOC and we are awaiting a response.

B. Midwestern Committee Report

Mr. Robert Owen could not attend the meeting; therefore there was no Midwestern Committee Report.

IV. NEW BUSINESS

A. Nuclear Regulatory Commission – Roland Lickus, Government Liaison represented the NRC for this meeting.

The first of four issues reported on by the NRC was the Demand for Information regarding the Exponent report on the Reactor head degradation at the Davis-Besse Nuclear Power Station. The NRC became aware of this report in February. The timeline on the head degradation at the Davis-Besse Station extrapolated in the report varied from the timeline given by FirstEnergy to the Nuclear Regulatory Commission. This could have had safety implications for the whole industry. The NRC issued the Demand for Information which consisted of four (4) questions.

The end of cycle meeting for Davis-Besse is August 19.

Perry NPP had been in Column 4, then was moved back to Column 1 (normal oversight). In January of this year, they had a performance indicator that went from "Green" to "White". That performance indicator was a newly developed indicator named "mitigating systems". Basically this finding was because of the unavailability of the diesel generators. This meant Perry was moved from Column 1 to Column 2. This means that in addition to normal inspections, they will get an inspection called a 95-001 inspection. This is a one person inspection, approximately a week long.

Local Outreach: Did Perry Outreach in March (all three (3) counties). As a result of the meetings, Lake County wanted more information on the NRC program of dry cask storage due to Perry (and eventually most plants) looking to that system of storage.

Regulatory Information 2007-01 and 2007 02 Summaries: 2007-01 was a clarification of guidance for standards for maintaining standard EAL scheme. This is

due to an inspection at Point Beach NPP in August 2003 where it was determined that Point Beach failed to maintain an EAL scheme in their emergency plan.

The 2007-02 Regulatory Information Summary. There is a 15 minute time line that nuclear power plants have to declare and notify off-site response agencies of an event. The NRC has found a licensee that has it as permissible to restart the 15 minute clock if an emergency is upgraded (plant situation degrading) during the notification process of the previous level. This is unacceptable. If the plant situation degrades, the licensee should update the higher emergency classification and completed the updated notification within 15 minutes of the lesser notification. If the notification cannot be updated and completed, the notification should be completed for the initial level and then renotify for the upgraded level.

- B. Utility Reports: Mr. Higaki reported for the three nuclear power plants of FirstEnergy.

**Beaver Valley Power Station**

- a. 2008 Evaluated Exercise – June 24, 2008 is the tentative date for the next Beaver Valley evaluated exercise.
- b. Security Drill – is scheduled for January 2009 – using guidance of Nuclear Energy Institute 06-04, Guideline for the Development of EP Drill and Exercise Threat-Based Scenarios, August 2006.

The nuclear industry is implementing a voluntary program to conduct a threat based drill at each plant by September 2009. The three FENOC plants will be conducting these drills, one per year beginning in September 2007 at Perry Plant.

NEI 06-04 was submitted for NRC and FEMA endorsement in August of 2006.

- c. MS-1 drill – Beaver Valley Nuclear Power Station will be conducting the MS-1 hospital evaluated exercise out of sequence in October 31 of this year. The exercise will be conducted at Salem Hospital. Their plume-phase evaluated exercise is tentatively scheduled for June 24, 2008.

White Finding Closed – The 95001 inspection was conducted to review the root cause and corrective actions from the White finding issued to Beaver Valley station during their 2006 evaluated exercise. The finding pertained to a portion of the dose assessment procedure and information flow between the Technical Support Center and Emergency Operations Facility. The finding was considered closed at the inspection exit on June 28.

**Davis-Besse Nuclear Power Station**

May 15, 2007 – Evaluated Exercise Results

This was a full participation exercise, which included Ottawa, Lucas and Erie Counties as well as the State of Ohio.

- Exercise involved approximately 150 FENOC individuals and 450 state and county personnel.
- The NRC also participated as "players" - a team of 17 NRC individuals were engaged in the Emergency Response Facilities.
- NRC inspection team consisted of 3 inspectors and 2 additional observers in training - no findings or issues were identified; exercise critiques were evaluated as thorough and detailed; the scenario was varied and challenging; the inspectors focused on the control room simulator, Technical Support Center and Emergency Operations Facility – staff performances in the facilities were characterized as "good" to "very good."
- All 35 onsite objectives were met, and the 10 NRC Drill/Exercise Performance Indicators were successfully demonstrated.
- 32 FEMA evaluators examined offsite performance and identified no deficiencies and very few areas for improvement.
- NRC inspection included a review of licensee EP performance indicators which were considered to be acceptable with no issues identified.

Independent Assessments

As part of the NRC confirmatory order related to the Davis-Besse reactor vessel head degradation event, Davis-Besse is committed to performing independent assessment of four key programs for a period of five years (2004-2008).

The Confirmatory Order Independent Assessments continue at Davis-Besse for two more years (2007 and 2008). The schedule for 2007 is as follows:

2007 CONFIRMATORY ORDER INDEPENDENT ASSESSMENT SCHEDULE					
Tentative					
ASSESSMENT	SUBMIT PLAN	CONDUCT ASSESSMENT	EXIT & DRAFT REPORT TO DB	FINAL REPORT TO DB	FINAL REPORT TO NRC
Operations Performance	March 13	June 11 - June 22	July 6	July 13	August 20
Corrective Action Program	April 10	July 9 - July 20	August 3	August 10	September 17
Engineering Program	June 12	Sept. 10 - Sept. 21	October 5	October 12	November 19

URSB Statutory Minutes  
July 9, 2007

Effectiveness					
2006 Safety Culture/SCWE	June 11	9/4 - 9/21 Survey 10/29 - 11/2 On site	December 14	December 21	January 28, 2008

May 19, 2007 Weekend Downpower

The weekend of May 19, 2007, Davis-Besse personnel executed a scheduled down power, improving the plant's reliability by eliminating several operational challenges. As a result of pre-planning and focused execution, work was performed safely, event-free, 30 percent under predicted dose levels and 12 hours ahead of schedule.

To address the issues with the plant's secondary chemistry, operations personnel isolated and drained circulating water to the main condenser while the maintenance and engineering team found one leaking tube. The leaking condenser tube and two others susceptible to leakage were plugged.

To reduce operating temperatures in the condensate pump motors, all three motor coolers were replaced. While installing them, the team discovered flow restrictions in the common discharge header. As a result, the team developed and installed a temporary modification to provide an alternate flow path. These actions brought the pump bearing temperatures back to normal operating levels. (Note: This temporary modification was removed on June 23)

A staggered approach was used to repair the low oil-level alarm in the reactor coolant pump, while keeping radiation dose numbers in check. Three teams made up of maintenance, engineering, and radiation protection personnel split the duties of containment entry, replenishing the pump's oil reservoir, as well as identifying the source of the leakage.

June 23, 2007 Weekend Downpower

Davis-Besse's operations and maintenance personnel executed a weekend down power that began on Friday June 22, 2007 at 2000. The work implemented during the down power was replacement of the cooling water return line piping for the condensate pump oil coolers and removal of the temporary modification which had been previously installed.

Operations and maintenance teams worked together to complete the effort safely, event free, and ahead of schedule. Reactor output was reduced to 97 percent so the work could be completed. The Unit was returned to full power on June 23 at 0500.

Security Drill

The Davis-Besse EP/Security drill is scheduled for November 13, 2008.

### **Perry Nuclear Power Plant**

The eleventh Refueling Outage (RFO) commenced April 2 and was completed on May 13 at 0431.

#### **Major work activities**

- Vessel Disassembly Refuel and Fuel Shuffle
  - In-vessel Inspections
  - Inspect and re-channeled 50 bundles
  - Replace 16 Control Rod Blades
  - Replace 15 Control Rod Drive Mechanisms
  - Replace 50 Low Power Range Monitors (in-vessel instrumentation)
  - LP Turbine B and C Rotor Replacements
  - Replace 3 Turbine Valve Actuators
  - Feed Water Venturi Repair
  - Cooling Tower Inspections
- 
- May 13 at 0828 a turbine trip occurred. The reactor remained critical. Investigation identified that two electro-hydraulic control system cards providing the speed control function for the turbine were found not seated properly and were repaired. The generator was synchronized to the grid on May 14 at 1604.
  - May 15, at 0058 a reactor SCRAM occurred due to reactor water reaching level 3, a scram set point, during digital feedwater tuning. The cause for the decreasing reactor water level was identified as a logic error in the software of the new digital control system. Corrections to the software were made and plant was in startup on May 17 at 0159 and the generator was on line at 2055.
  - May 18 at 2002 the generator was taken off line to repair a electro-hydraulic control system leak. The leak repair was completed at the generator restored on line on May 19 at 0022.
  - May 19 to May 23 – reactor power was held at 55 percent for continued digital feed water tuning.
  - May 25 an iso-phase bus duct cooling glass cover for viewing the main generator disconnect switch has blown off allowing some air flow to be diverted from cooling the bus. Power reduced to 59 percent allowing self cooling mode. Later in the day, reactor power was lowered to 52 percent power to repair a main steam isolation valve position indication problem within the steam tunnel.
  - May 26 at 1815 - Total steam flow and feed water return temperature indicates that the plant is at 100% power based on these indications. Thermal power indication is 98.5% at 3700 Mwt. An administrative limit of 3650 Mwth was established to ensure the unit was not operated outside of its license limits. Probable cause was suspected

to be cleaning of the feedwater venturi during the Refueling Outage which in turn led to reduced feedwater flow indications, less d/p across venturi.

- May 27 at 1930- the unit's power level was reduced to 66 percent to make control rod position adjustments.
- May 28 investigation concluded the current administrative limit of 3650 MWth on reactor thermal power was conservative and appropriate. Additional testing is planned to establish new full power parameters.
- June 10 at 0327 reactor recirculation flow control valve 'A' indicates position oscillation. Reactor power was maintained at 95 percent. Valve hydraulics to the 'A' valve was secured to prevent further oscillations.
- June 21 at 2030 Operations commenced plant shutdown to allow entry into the drywell to further troubleshoot for the cause of the flow control valve oscillations.
- June 22 at 0100 during power reduction, the reactor recirculation pump 'B' failed to transfer to slow speed while down shifting pumps. Operations conducted a reactor SCRAM at 0329 to complete the plant shutdown.
- June 23 Operations achieved hot shutdown and repairs were made to flow control valve 'A' control cable within the drywell and replaced the failed relay that had been the source of the problem of the 'B' pump to not downshift during plant shutdown.
- June 24 at 0400 - Operations commenced reactor startup.
- June 25 at 0150 - the generator was synchronized to the grid.
- June 27 at 2348 - reactor recirculation pump 'A' tripped and operations entered single loop operation with reactor power at 60 percent. Later, bad motor winding resistance readings were found on one phase of pump motor.
- June 29 at 1426- Perry Plant was shutdown by reactor SCRAM to replace reactor recirculation pump 'A' motor. Cold Shutdown conditions were established on June 30 at 1607.
- Forced Outage completion date is estimated in late July.
- Reactor recirculation pump motor replacement is a significant undertaking. The motor is 10 feet tall, weighs about 20 tons and is capable of 8,000 horsepower. The motor is located in the drywell and will require removal of a number of interferences to allow movement out of the drywell and then the containment.
- A replacement motor is available and is undergoing final testing and then will be shipped to the plant for installation.

Security Drill

Perry Nuclear Power Plant is schedule to run a threat based security drill on September 12th, 2007.

A tabletop walk though of all key players in the drill will occur on August 22, 2007. Additional, specialized meetings will occur prior to the August table top addressing Local Law Enforcement, Fire and Medical services, Offsite Agencies and Perry Nuclear Power Plant objectives, participation, command/control issues and inter agency communications.

This drill is part of the Industry initiative to implement guidance of NEI 06-04 for hostile threat drills.

Indicator

Mitigating System Performance Index (MSPI) was first implemented in April 2006 replacing a performance indicator that monitored unavailable hours only. The current indicator is risk based and heavily influenced by equipment failure.

The diesel generators are tracked in an indicator called Emergency AC power. Four equipment failures in a 3 year period will cause the indicator to cross the threshold from green to white.

In January 2007 a leak in a cooling water line was determined to be a failure. This failure compiled with previous diesel generator issues caused the indicator to turn white. The leak was repaired and a root cause investigation was performed and appropriate corrective actions taken. Verification of the tightness and condition of a specific coupling was identified as one of the corrective actions. This action is being tracked in the corrective action program.

An NRC inspection (approximately 40 hours in duration) will be conducted in late summer or early fall to evaluate the thoroughness of the investigation and effectiveness of the corrective actions.

A previous failure will drop off in October of this year turning the indicator back to green.

IV. MISCELLANEOUS: The next meeting will be held October 9, 2007.

URSB Statutory Minutes  
July 9, 2007

V. ADJOURNMENT:

---

DATE

---

MELVIN R. HOUSE, DIVISION DIRECTOR  
CHAIR PRO TEM  
UTILITY RADIOLOGICAL SAFETY BOARD