

UTILITY RADIOLOGICAL SAFETY BOARD

MEETING MINUTES

OCTOBER 9, 2012

Mr. Michael Snee, Ohio Department of Health, called to order the October 9, 2012 meeting of the Utility Radiological Safety Board at 10:53 a.m. at the Columbiana County Emergency Management Agency.

The first order of business from the agenda was the roll call taken by Tess Ocean.

I. ROLL CALL

EMERGENCY MANAGEMENT AGENCY  
DEPARTMENT OF HEALTH  
DEPARTMENT OF AGRICULTURE  
PUBLIC UTILITIES COMMISSION  
ENVIRONMENTAL PROTECTION AGENCY  
DEPARTMENT OF COMMERCE

MS. SIMA MERICK  
MR. MICHAEL SNEE  
MR. CHUCK KIRCHNER  
MR. DAN FISHER  
MR. KEVIN CLOUSE  
NO REPRESENTATIVE

II. ANNOUNCEMENTS

There were no announcements for the meeting.

III. READING OF THE JULY 9, 2012 MINUTES (ADOPTED)

The board dispensed with the reading of the July 9, 2012 Minutes. Mr. Michael Snee, Ohio Department of Health, asked for additions, corrections or deletions to the minutes. Mr. Snee asked for a motion to approve the minutes. Mr. Dan Fisher, Public Utilities Commission, moved to adopt the minutes and Mr. Chuck Kirchner seconded. The motion carried.

IV. OLD BUSINESS

A. Updated Status of the URSB Initiatives

Mr. Michael Bear of the Ohio Emergency Management Agency and Mr. Stephen Helmer of the Ohio Department of Health, reviewed the URSB Initiatives. Topics briefed included the Beaver Valley Nuclear Power Station Evaluated Exercise, the Perry Nuclear Power Plant Evaluated Exercise, the Perry Nuclear Power Plant Cross-Cutting Human Performance Issues, After Action Plan Activities, IZRRAG Activities, Reactor Oversight Program, Technology, State Dose Assessment, KI, REP Guidance and the Joint Inspection Observation Program.

B. Midwestern Committee Report

Mr. Michael Snee provided the Midwestern Committee report. There have been no shipments through Ohio. Most of the transuranic waste has been shipped out and there is nothing on the horizon. There might be shipments from Piketon in the future. The fall meeting will be held in Omaha in November.

## V. NEW BUSINESS

### A. New Ohio EMA Designee

Ms. Sima Merick was introduced as the new Ohio EMA designee, as Mr. Mel House, is now the Director of Emergency Medical Services. Ms. Merick is the Assistant Director at Ohio EMA.

### B. URSB WG Quarterly Reports

Each of the participating URSB agencies provided a report of their respective state agency activities. Each agency's report is available upon request from the URSB Secretary.

### C. URSB Annual Report

Mr. Michael Snee, Ohio Department of Health, asked for a motion to approve the URSB Annual Report. Mr. Chuck Kirchner of the Ohio Department of Agriculture motioned to approve the Annual Report and Mr. Kevin Clouse of the Ohio Environmental Protection Agency seconded the motion. The motion carried. A final copy will be sent to all member agencies.

### D. Nuclear Regulatory Commission

Mr. Allan Barker of the Nuclear Regulatory Commission reported on the following topics: Oversight of First Energy Nuclear Operating Company Plants, Reintegration of Security into Reactor Oversight Process, NRC Updates on Post-Fukushima Accident Guidance, and Effects of Waste Confidence Rule Court Finding on Licensing. Mr. Barker's report is attached at the end of the Board-approved minutes.

### E. Utility Reports

Mr. Ricky Collings, Supervisor of Fleet Emergency Preparedness of the First Energy Nuclear Operating Company provide the utility report on the following topics: the Beaver Valley Power Station Unit 2 Outage Update and the Evacuation Time Estimate, the Davis-Besse Nuclear Power Station Status of License Renewal, the Perry Nuclear Power Plant 2012 Evaluated Exercise and the Status of Cross-Cutting Area of Human Performance, and the FENOC Status of the MIDAS Program and the Status of the new Emergency Operations Facilities. Mr. Collings report is attached at the end of the Board approved minutes.

## VI. MISCELLANEOUS

### A. Dates of 2013 URSB Meetings

The dates of the next 2013 URSB meetings are January 14, April 8, July 8 and October 7.

### B. Location of the next URSB meeting

The first URSB meeting of the year will take place at the EOC/JDF building and the location of future meetings will be discussed at that time.

### C. Questions from the Public

There were no questions from the public.

## VII. ADJOURNMENT

Mr. Michael Snee of the Ohio Department of Health asked if there was a motion to adjourn the meeting. Mr. Chuck Kirchner of the Ohio Department of Agriculture motioned to adjourn the meeting and Mr. Dan Fisher of the Public Utilities Commission seconded. The motion carried. The meeting was adjourned at 12:08 p.m.

## **NRC Report Davis-Besse Nuclear Power Plant**

In the September 4, 2012, assessment letter, plant performance was within the Licensee Response column of the NRC Action Matrix. This was based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, the NRC plans to conduct reactor oversight process baseline inspections. This assessment also reflects the integration of the Security Cornerstone.

Performance at Davis-Besse during the assessment period demonstrated improvement in the area of human performance. The number of findings in the aspect of documentation and procedures has decreased, and the NRC is confident that current corrective actions, if correctly implemented and sustained, will mitigate the human performance cross-cutting findings. Therefore, the substantive cross-cutting issue in documentation and procedures will be closed.

Selected upcoming inspections from the 2012/2013 inspection schedule were identified.

## **Perry Nuclear Power Plant**

In the September 4, 2012, assessment letter, plant performance was within the Degraded Cornerstone column of the NRC Action Matrix because of one White performance indicator (PI) in Occupational Exposure Control Effectiveness and one finding, originating in the second quarter of 2011, having a low-to-moderate safety significance (i.e. White) related to the Occupational Radiation Safety Cornerstone. The Occupational Radiation Safety PI was reported with a total of five occurrences (White) in the second quarter of 2012 putting this in the White region. The NRC understands that Perry is evaluating this indicator as some of the occurrences may be associated with a single event. The NRC will review this evaluation as part of our ROP baseline inspection process. Regardless, Perry will remain in the Degraded Cornerstone Column of the ROP until the successful completion of a 95002 supplemental inspection. This assessment also reflects the integration of the Security Cornerstone.

On August 9, 2012, Perry notified the NRC of the site's readiness for the NRC to conduct a supplemental inspection to review the actions taken to address the performance issues which caused the degraded cornerstone. Therefore, in addition to ROP baseline inspections, the NRC is conducting a supplemental inspection in accordance with IP 95002 that begun on August 27, 2012, which is still in process.

In the NRC assessment letter dated March 5, 2012, the NRC advised Perry of substantive cross-cutting issues (SCCIs) in the area of HP with cross-cutting themes in the components of Decision Making, and Documentation and Procedures.

Regarding Decision Making, this SCCI was open through the last assessment period. The NRC has determined, through our baseline inspection process and observations of the programmatic changes made with the corrective actions from the root cause evaluation Perry completed in February of 2012, that the corrective actions on this SCCI have been successful. In addition, there has been sustained performance improvement including several recent examples of

conservative decision making by senior management. For these reasons, the SCCI in Decision Making is closed.

Regarding Documentation and Procedures, this SCCI was open for four consecutive assessment periods at the time of the assessment letter dated March 5, 2012. The NRC has determined, through our baseline inspection process and observations in the field of changes implemented by Perry's corrective actions from the root cause evaluation completed in May of 2012, that the corrective actions have been effective in addressing performance improvement and improving documentation and procedures. Therefore, the SCCI in Documentation and Procedures is closed.

The radiation protection program has not demonstrated sustained performance improvements, as problems in occupational radiation safety continue to occur. Radiation safety issues continue to be identified by inspectors and self-revealed to plant staff. Specifically, issues continue to exist regarding the control and access to high radiation areas at the plant. Following the last assessment period, Perry enforced aggressive actions to stabilize and improve performance in this area. These steps initially showed a prompt improvement in this area. However, recent performance indicates that more work needs to be done to ensure that these types of events are arrested. The NRC notes that the radiation protection program should be a continuing focus area for improvement.

Selected upcoming inspections from the 2012/2013 inspection schedule were identified.

## **Beaver Valley**

In the September 4, 2012, assessment letter, plant performance was within the Licensee Response column of the NRC Action Matrix. This was based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, the NRC plans to conduct reactor oversight process baseline inspections. This assessment also reflects the integration of the Security Cornerstone.

Selected upcoming inspections from the 2012/2013 inspection schedule were identified.

## **Reintegration of Security into Reactor Oversight Process**

NRC News Release 12-089 issued August 1, 2012, identifies the reintegration of security into the Reactor Oversight Process (ROP) effective July 1, 2012. The reintegration will be reflected in the August quarterly update to the ROP's Action Matrix. The NRC previously treated safety and security inputs to the Action Matrix separately. Reintegrating security information will allow NRC staff to more fully leverage supplemental inspection procedures and resources when performance warrants.

The integrated assessment process will provide the public increased transparency through a complete representation of licensees' performance. Under the new process, licensees receive a single assessment letter that covers all seven ROP cornerstones. From now on, the website will show information on all seven ROP cornerstones, with security inputs displayed in one of two ways. Issues of very low security significance will show up as "green" findings or

performance indicators. Issues of greater security significance will show up as “blue” findings or performance indicators, regardless of their actual significance level. Specific information about all security performance deficiencies will remain non-publicly available, consistent with current NRC policy.

## **NRC Post-Fukushima Guidance**

NRC News Release 12-097 identifies that the NRC has issued Interim Staff Guidance (ISG) to U.S. nuclear power plants to ensure proper implementation of the three Orders the agency issued in March. The ISGs represent acceptable approaches to meeting the Orders’ requirements before their December 31, 2016, compliance deadline. The ISGs are not mandatory, but U.S. nuclear power plants would have to seek NRC approval if they wanted to follow a different compliance approach. The NRC issued draft versions of the ISGs on May 31, 2012, and asked for public input; the final ISGs reflect information gained from the month-long comment period and subsequent public meetings.

## **Waste Confidence on NRC Licensing**

The NRC directed the agency’s staff to develop an environmental impact statement (EIS) and a revised waste confidence decision and rule on the temporary storage of spent nuclear fuel. The EIS and rule, which are in response to a June 8 ruling of the U.S. Court of Appeals for the District of Columbia Circuit, are to be completed within 24 months. In a Staff Requirements Memorandum, the Commission directed the staff to “proceed directly” with development of the EIS and a revised waste confidence rule to satisfy the deficiencies the Appeals Court found in the NRC’s 2010 waste confidence revision. The Appeals Court ruled that NRC should have considered the potential environmental effects in the event a permanent repository for disposing of spent fuel is never built, and found other deficiencies with the agency’s consideration of leaks and fires involving spent fuel pools.

“Waste confidence” is a generic finding that spent nuclear fuel can be safely stored for decades beyond the licensed operating life of a reactor without significant environmental effects. It enables the NRC to license reactors or renew their licenses without examining the effects of extended waste storage for each individual site pending ultimate disposal. On August 7, the Commission issued an Order that NRC will not issue licenses dependent on the waste confidence rule – such as new reactors and renewal of existing reactor operating licenses – until the Court’s remand is appropriately addressed. That Order remains in effect.

The Commission directed the staff to “provide ample opportunity for public comment” on the EIS and rule, even while looking for ways to make the EIS and rulemaking process more efficient. It said the staff should form an inter-office team of the agency’s most-accomplished environmental experts to develop the EIS and resolve comments “with the urgency that this matter deserves.” The NRC’s Office of Nuclear Material Safety and Safeguards, which has regulatory responsibility over spent fuel storage and disposal, has established a Waste Confidence Directorate to develop the waste confidence EIS. The new directorate will be headed by Dr. Keith I. McConnell, currently deputy director of the Division of Waste Management and Environmental Protection in the Office of Federal and State Materials and Environmental Management Programs.

# FirstEnergy update to the Ohio Utility Radiological Safety Board

## 1) Beaver Valley Power Station

### a) Unit 2 Outage Update

#### Outage Goals

- No Significant Human Performance Events
- No Nuclear Safety Events
- No Loss of Decay Heat Removal
- Dose Goal 65 REM / Stretch Goal 58.5 REM
- PCE: The 2R16 PCE Goal is 20 / The Stretch Goal is 16
- Safety: No OSHA Recordable Incidents
- Schedule: 37 Day Business Plan

#### Major Work

- LP Turbine Rotor Replacement
- Replacement of 19 Extraction Steam Bellows (expansion joints)
- Iso-Phase Bus Duct Cooling upgrade
- Replacement of the 2-2 and 2-4 Batteries
- Reactor Head Inspection and CRDM repairs if required
- RCS Hot Leg Nozzle Exams
- Steam Generator Eddy Current testing and data analysis
- Steam Generator secondary side Sludge Lancing
- Reactor Coolant Pump Shutdown Seal Replacement with the new Westinghouse design Shutdown Seals
- Refueling

### b) Evacuation Time Estimate

The Evacuation Time Estimate project began in November 2010. Additional project activities included a review of Geographical Information System (GIS) maps of the area surrounding the BVPS and a detailed field survey of the highway network. The data files from 2010 census information and information from FirstEnergy and the counties provided data pertaining to employment, transients, and special facilities in each county were used to capture all population information. Per federal requirements the following planning items were considered in the development of the ETE report.

- The event is a rapidly escalating accident and no early protective actions have been implemented.

- Following federal guidelines, the EPZ is subdivided into 19 sub-areas. These sub-areas are then grouped within circular areas or “keyhole” configurations (circles plus radial sectors) that define a total of 55 Evacuation Regions.
- 14 scenarios were considered for each of the 55 evacuation regions or a total of 770 ETEs were computed for the evacuation of the public.
- Staged evacuation was considered for those regions where the 2 mile radius and sectors downwind to 5 miles were evacuated.
- The ETE assumes that 20% of the population within the EPZ but outside the impacted evacuation area will elect to “voluntarily” evacuate.
- The ETE has time estimates for 90% and 100% of the population within the impacted regions; the 90% has been identified as the value that should be considered when making protective action decisions because the 100% are prolonged by those relatively few people who take longer to mobilize.

The draft ETE report has been reviewed by all counties and states, and a final meeting to discuss the draft ETE report was completed on 9/10/2012. The final report is expected to be complete by 10/31/2012 and will be submitted to the NRC in December 2012. The NRC has 6 months to review the report, and once approved the utility and counties have 6 months to implement any changes. Target date for counties/state to have the ETE changes incorporated into their plan is 12/2013. The following conclusions were identified in the BV draft report:

- The ETE for the entire EPZ at 90% ranges from 2:55 (summer, evening, good weather) to 3:55 (winter, midweek, snow)
- The ETE for the Ohio portion of the EPZ at 90% ranges from 2:10 (6 different scenarios) to 3:00 (winter, midweek, snow)
- Staged evacuation provides no benefit to evacuees from within the 2 mile region and unnecessarily delays the evacuation of those beyond 2 miles.
- The 2010 population was 113,427 which is a 6.46% decrease from the 2000 population

## 2) Davis-Besse Nuclear Power Station

### a) Status of License Renewal

On September 19, 2012, FENOC met with the Nuclear Regulatory Commission (NRC) Advisory Committee on Reactor Safeguards License Renewal Subcommittee to discuss the Davis-Besse License Renewal Safety Evaluation Report with Open Items. The NRC is tracking four (4) Open Items in the Davis-Besse License Renewal Safety Evaluation Report. FENOC has provided responses to all four Open Items, and they are under review by the NRC. The Open Items are as follows:

- Shield Building cracking aging management
- Reactor Vessel embrittlement
- Reactor Vessel pressure-temperature limits
- Operating experience related to aging issues

The Advisory Committee on Reactor Safeguards License Renewal Subcommittee Meeting went very well, and FENOC left the meeting with no unanswered questions. As a result, issuance of the Final Davis-Besse License Renewal Safety Evaluation Report is tentatively planned for January 2013, and the Advisory Committee on Reactor Safeguards Full Committee Meeting is tentatively planned for March 2013.

The Atomic Safety and Licensing Board has scheduled hearings regarding the one admitted license renewal contention (i.e., use of the Modular Accident Analysis Program (MAAP) code for determining core inventory release fractions) associated with the Severe Accident Mitigation Alternatives (SAMA) Analysis and the proposed contention on the Shield Building cracks. The hearings are scheduled for early November in the Lucas County Courthouse in Toledo, Ohio.

NRC is moving forward with their review of the Davis-Besse Environmental Report, and tentatively plans to issue the Davis-Besse Draft Supplemental Environmental Impact Statement in December 2012.

### 3) Perry Nuclear Power Plant

#### a) 2012 Evaluated Exercise

The preliminary results debriefed on October 5, 2012 are that the NRC had not Findings or open items. The critique process was determined to be critical and in depth. The NRC agreed with the critique findings and issues entered into the Corrective Action program. They also reviewed the NRC Performance Indicators and had no issues. They provided insights from their team that will be used by the station for further improvement. They stated the station continued to demonstrate the ability to protect the health and safety of the public. A written report will be issued in about 45 days.

#### b) Status of Cross-Cutting Areas of Human Performance

The Nuclear Regulatory Commission (NRC) provided the following to the Perry Nuclear Power Plant (PNPP) in regards to the Reactor Oversight Process (ROP):

Performance at PNPP during the assessment period continued to exhibit some weaknesses in the area of human performance with nine findings identified. Although plant work management performance has improved over the period, the NRC noted occasional challenges caused by human performance. Improved performance has been noted in areas where thorough cause evaluations were completed and aggressive corrective actions were taken. Previously, two SCCIs existed in H.1(b) and H.2(c) – both of these are now closed.

For the H.1 (b) SCCI, the NRC determined that corrective actions have been successful in reducing the findings and addressing the underlying causes. In addition, there was sustained performance improvement including several recent

examples of conservative decision-making by senior management. For these reasons, the NRC closed this SCCI.

For the H.2(c) SCCI, the NRC determined that corrective actions from the root cause evaluation completed in May of 2012, have been effective in addressing performance improvement, improving documentation and procedures, and reducing the number of findings related to H.2(c). Therefore, the NRC closed this SCCI.

#### 4) FENOC

##### a) Status of MIDAS program

MIDAS is fully implemented at Perry. Beaver Valley has implemented only the manual mode of the process although all modes are available. They will implement the automatic mode and supporting functions. The program is complete awaiting testing at Beaver Valley and the associated training. It is expected to be completed by second quarter 2013. The program has been used successfully during Evaluated Exercises at both sites during 2012. Work continues at Davis-Besse to complete the transition to MIDAS across the FirstEnergy fleet. Additional training is being given at Davis-Besse along with improvements with the Change Management program based on lessons learned at the other two sites. Target is cut over to MIDAS at Davis-Besse early in 2013.

##### b) Status of new Emergency Operations Facilities

Beaver Valley and Perry both have transitioned to their new EOFs. The facilities were used during the 2012 Evaluated Exercises for those sites with positive responses from both the Players and external stake holders. The Davis-Besse facility is in the final acceptance phase. Final punch lists are being developed and worked. All the permits to support the facility have been received and an occupancy permit has been issued. The facility is scheduled to be operational by the end of 2012 in support of the Evaluated Exercise in the spring of 2013. FirstEnergy will be in full compliance with NRC rulemaking prior to the due date of December 23, 2012.