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# REPORT FROM THE CHAIRMAN



REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY  
(TO BE DEVELOPED)

# DESCRIPTION OF THE URSB



## DESCRIPTION OF THE URSB

The Utility Radiological Safety Board (URSB) of Ohio was established by the Ohio General Assembly as part of Amended Substitute House Bill 111 in July of 1989 and later revised by Amended Substitute House Bill 215 in June 1997. The Board's purpose is to develop a comprehensive policy for the State regarding nuclear power safety. The Board's objectives are to promote safe, reliable, and economical power; establish a memorandum of understanding with the federal Nuclear Regulatory Commission and the State; and recommend policies and practices that promote safety, performance, emergency preparedness, and public health standards that are designed to meet the State's needs.

The URSB membership consists of six state agencies: the Ohio Departments of Agriculture, Commerce, and Health; the Ohio Emergency Management and Environmental Protection Agencies; and the Public Utilities Commission of Ohio.

The URSB has a Working Group comprised of member agencies' staff to support the Board and a Citizens Advisory Council (CAC), which provides the Board with citizen concerns. Board meetings are held quarterly at the offices of the Ohio Emergency Management Agency at 2855 West Dublin-Granville Road, Columbus, Ohio. The meetings are open to the public.

To find out more information concerning the Utility Radiological Safety Board and its members, please refer to the URSB homepage at <http://www.ursb.ohio.gov/> or contact the URSB Secretary at (614) 889-7160.

The Board members for SFY06 and their respective designees are listed below:

Ohio Department of Agriculture  
Mr. Fred L. Dailey, Director  
Mr. Anthony Mitchell, Designee

Ohio Emergency Management Agency  
Ms. Nancy Dragani, Executive Director  
Mr. Melvin House, Designee

Ohio Department of Commerce  
Mr. Doug White, Director  
Mr. Dean Jagger, Designee

Ohio Environmental Protection Agency  
Mr. Joe Koncelik, Director  
Ms. Cindy Hafner, Designee

Ohio Department of Health  
J. Nick Baird, Ph.D., Director  
Mr. Robert Owen, Designee

Public Utilities Commission of Ohio  
Dr. Alan Schriber, Chairman  
Mr. Shawn Smith, Designee

# URSB ACTIONS AND ACTIVITIES



# URSB ANNUAL REPORT

## FY06

### SUMMARY OF URSB MEETINGS:

#### JULY 11, 2005

The report on the CAC (Citizens Advisory Committee) was given by the Environmental Protection Agency (EPA). The EPA has tried very hard to revive participation in the CAC through environmental groups, county EMAs, the utilities and by contacting former members. These attempts have not resulted in increased interest in the Council. The CAC was created by resolution of the Board. It was felt that the Board has the authority to temporarily suspend CAC activities. The Board decided to take this action until issues arise which generate public interest. Tammy Little, Ohio EMA legal representative, will research the legality of taking this action.

The Ohio Department of Health (ODH) provided the Board with an update on the Midwestern Committee. A working group was formed to begin work on reviewing and commenting on revisions to DOE's Radioactive Material Transportation Practices Manual. The manual addresses communications, emergency planning, training, routing, security, carrier requirements, operational contingencies, inspections, safe parking, and post-accident recovery and cleanup. TRANSCOM, the web-based transportation tracking system, is moving its operations from Albuquerque, NM to Carlsbad, NM. The transition will be completed by September 2005. DOE is taking this opportunity to make improvements to the system. Ohio has participated with several of the other Midwestern states in the development of a suite of highway and rail routes for transporting radioactive material. States continue to believe that DOE should support the funding of state activities in support of ensuring the safe transportation of spent nuclear fuel and high-level radioactive waste from commercial reactors. A letter was sent to the Private Fuel Storage Consortium of DOE's OCRWM (Office of Civilian Radioactive Waste Management) in May 2005 advising them of the states' position. The PUCO gave a presentation at the committee meeting on Commercial Vehicle Safety Alliance (CVSA) inspections. An overview was given of the levels of inspections and inspection statistics. The CVSA ad hoc committee has security and radioactive materials subcommittees, of which PUCO is a member.

The URSB adopted Resolution 05-02 – Resolution for the Utility Radiological Safety Board Requesting FENOC Provide Unescorted Access for the State of Ohio Observation Program . Granting unescorted access to the nuclear power plants during NRC inspections would relieve plant personnel of the need to accompany URSB JIOP observers continuously. A written agreement between FENOC and the URSB, which is compliant with NRC requirements, should be signed to detail the terms of the unescorted access. The URSB is requesting that the agreement be in place and implemented by October 11, 2005.

The NRC issued a "White" finding to Davis-Besse Nuclear Power Station (DBNPS) on November 29, 2004. The Ottawa County Sheriff Dispatch Center lost its capability to activate all 54 EPZ sirens from April 27 through May 7, 2004, (10 days) and its capability to activate all 54 EPZ sirens was degraded from April 6 through May 7, 2004 (30 days).

The finding was more than minor because if Ottawa County officials needed to promptly activate the EPZ sirens between the morning of April 27 and noontime on May 7, 2004, the EPZ sirens would not have activated and the safety of some of the EPZ population could have been adversely impacted. The preliminary White finding was associated with one of the attributes of the Emergency Preparedness Cornerstone, specifically the facilities and equipment attribute.

In August 2004, the NRC designated Perry Nuclear Power Plant (PNPP) as a Multiple Degraded Cornerstone Facility in its Reactor Oversight Program. This was done because of the facility's numerous equipment problems between October 2002 and May, 2004. As a result, an extensive supplemental inspection was conducted involving a multidisciplinary NRC inspection team. The inspection focused on the utility's Corrective Action Program, Operating Procedures, Staff and Maintenance Performance, Engineering Program, and Emergency Planning Program. On May 26<sup>th</sup>, a meeting was held with the utility to discuss the preliminary inspection results. It was found that, although the equipment problems were classified as low to moderate in safety significance, the plant had not taken adequate actions to fix them. Based on the inspection results, the NRC has determined that continued oversight is needed.

The Beaver Valley Power Station (BVPS) Unit 2 re-fueling outage was conducted from April 4 to April 28, 2005. The outage was conducted in a safe manner from an industrial, human performance and nuclear safety perspective. All sixteen of the outage goals were accomplished. Beaver Valley met their obligation to FENOC in the areas of outage duration and cost.

A federally graded exercise was held at Davis-Besse in May, 2005. The NRC Evaluation Team did not identify any unresolved items, findings, or violations in the onsite portion of the exercise. The FEMA Evaluation Team reviewed offsite performance. The FEMA team found no Areas Requiring Corrective Action (ARCAs) for the State, one in Ottawa County for inadequate space for relocated school children, and one in Lucas County for improper assembly of a portal monitor.

On May 26, 2005, the NRC held a meeting in Lake County to discuss the preliminary results of the January-May, 2005 Supplemental Inspection of the Perry Nuclear Power Plant. The NRC Inspection Team found that the plant is operating safely. The performance problems result from inadequate Corrective Action Programs and Human Performance errors. Actions taken to address White Findings have not been fully effective and they are being re-evaluated. Increased NRC oversight is still warranted and will continue.

A license amendment has been submitted to the NRC to change the company identification to First Energy Generation Company (FENGenCo). This action is being taken to separate the power generation portion of FENOC from the power transmission and distribution portion. No physical changes will result from the change. If the amendment is approved, approval must be secured from the PUCO, the Securities and Exchange Commission and the Federal Energy Regulatory Commission.

## **OCTOBER 11, 2005**

In response to the inquiry from the July, 2005 meeting, Tammy Little, EMA, researched the original CAC Resolution and found nothing that mandated that the CAC conduct meetings. If there are concerns by citizens, these concerns can be brought directly to the Board. All Board Meetings are open to the public. The rule can be left in the administrative code and will be reviewed using the JCARR 5-year rule review process. In July, 2008, the rule will be up for JCARR review. Cindy Hafner, EPA, asked that as member agencies become aware of any other issues relevant to the CAC, they make them known to Ohio EPA.

Bob Owen gave the Midwestern Committee Report. He announced that Carlisle Smith, PUCO, has been appointed Chairman of the CVSA Radioactive Material Sub-Committee, effective July 1, of this year. The Midwestern Committee has not met since the July, 2005 Board meeting. The next meeting will be held in East Lansing on October 25, 26, 2005.

The URSB FY05 Annual Report was approved by the URSB.

The NRC Conference on Emergency Preparedness was held August 31<sup>st</sup>, September 1<sup>st</sup>, in Bethesda, which included state, county, and utility representatives, and concerned citizens. One of the recommendations that came out of the conference was during a security event, both the NRC and the off-site response organization be notified immediately. Additionally, it was confirmed by state and county representatives that offsite emergency planning is more than adequate.

Davis-Besse Nuclear Power Station (DBNPS) has been performing well and safely. It has accepted and paid a \$5.45 million fine for boric acid corrosion and reactor head degradation, and the associated findings have been closed. There is still an open white finding (EP) concerning the siren inactivation in May. As of October 1<sup>st</sup>, Ottawa County has conducted weekly silent siren tests. They are doing twelve 1-minute audible tests, one 3-minute audible tests, and 39 silent tests for a total of 52. Davis-Besse has received FEMA's approval on the Design Report. It establishes a redundant backup station at the Ottawa County Dispatch Center. In addition, independent assessments are required by the NRC Confirmatory Order. These assessments include operation performance, corrective action program implementation, organization safety culture and engineering effectiveness that must be conducted annually for 5 years from the date of the order. Two have been completed for 2005, operations and corrective action. The operation performance results were good overall. The corrective action program results were effective.

Perry has been operating safely for 150 days since the last refueling outage. NRC continues enhanced oversight of the Perry Nuclear Power Plant due to its placement in the 4<sup>th</sup> column of the NRC Reactor Oversight Matrix on August 4<sup>th</sup> of this year due to multiple degraded cornerstones. This placement designation led to a broad-based inspection of earlier this year. Perry submitted two letters to the NRC, one on Aug. 8<sup>th</sup> and one on Aug. 17, outlining corrective actions Perry will pursue to improve performance. On Sept. 28, the NRC issued a Confirmatory Action Letter (CAL) requiring the plant to take corrective actions in the areas of corrective action programs, human performance, emergency

preparedness, and follow-up issues from the 95003 inspection as delineated in the two letters to the NRC. A public meeting will be held on October 12<sup>th</sup> at Quail Hollow at 3:00PM to discuss the CAL and Perry performance.

Beaver Valley Power Station is at 100% power. The Alert Notification Self-Assessment was conducted August 29<sup>th</sup>. The report is in draft but should be available soon. FENOC/BVPS is requesting a change in siren test frequency from once per month to once per week. They also conducted an annual Off-Site Training August 4<sup>th</sup> and 5<sup>th</sup> to review aspects of the emergency plan. On September 12<sup>th</sup>, an overpower event occurred during surveillance testing of the steam control systems. One of the steps was performed out of sequence and resulted in opening a feedwater heating bypass valve. Feedwater temperature was inadvertently reduced and caused power to increase. Power was subsequently reduced by plant operators to 93 %. There were no effects on the plant. A root cause analysis is in progress and results and corrective actions should be finished this month.

Columbiana County Emergency Operations Center construction is in progress and is about 6 weeks ahead of schedule. They hope to have it completed by the end of this year. Darren Dodson is the new Director for that agency, and Tim Long is the new Deputy Director. They have also hired two staff people: one administrative person and one grant writer.

A briefing was provided on NRC Bulletin 2005-02, *Emergency Preparedness in Response to Action for Security Based Events*, sent out July 18, 2005. It includes information on four items, which have to do with the NRC requirements for security based threats to the power plants. Items are: 1. New provision for rapid notification of the NRC. 2. Onsite protective actions. 3. New set of emergency action levels for security and terrorist threat, which should be in place by January 20<sup>th</sup>. 4. The drill and exercise program. Every nuclear power plant is required to conduct 3 evaluated exercises during a six-year cycle. It is proposed that a security based exercise will be included in the six year cycle. Pilots of the security based exercises will be conducted.

## **JANUARY 9, 2006**

Bob Owen reviewed the Department of Health Midwestern Radioactive Material Transportation Committee Report. The topics covered were: Committee Leadership, DOE Protocols Working Group, TRANSCOM Transition, Section 180 (c) Funding - Nuclear Waste Policy Act, Security Topic Group, Rail Topic Group, Route Identification Work Group, Office of Civilian Radioactive Waste Management (OCRWM) Overview, NRC Studies, Private Fuel Storage, Nuclear Energy Institute, Route Identification Meeting, and the Tour of Yucca Mountain.

As a result of an NRC supplemental inspection that occurred in October, 2005, NRC evaluated the status of a previous white finding in the emergency preparedness area of Davis-Besse Nuclear Power Station regarding the loss of capability to activate the warning sirens for a 10-day period and the degraded capability to activate the sirens 20 days prior to that period. In addition, the NRC also reviewed the status of the licensee's response to the submittal of what is termed the "Discrepant Alert Notification System Performance Indicator" data for the second three quarters of 2004. In both cases, NRC inspectors concluded that Davis-Besse's corrective actions were

sufficient to address the causes and prevent reoccurrence of both of these issues. As a result, the white finding is now closed and the Performance Indicator data is being assessed and recorded correctly. Davis-Besse has, therefore, been placed in column 1, or the Licensee Response column, of the NRC's Action Matrix which means basically that the NRC will be performing routine basic reactor oversight inspection program at the facility.

On January 4, 2006, NRC issued orders to four individuals prohibiting their involvement in NRC-regulated activities because of their roles in providing incomplete and inaccurate information to the NRC on conditions at the Davis-Besse Nuclear Power Plant in 2001. NRC has concluded that these four individuals that included three former utility managers engaged in deliberate misconduct by providing inaccurate and incomplete information about the extent of reactor vessel head cleaning and inspection. The four individuals are no longer employed by First Energy. Orders prohibiting involvement in NRC-regulated activities for a period of five years were issued to three individuals: David Geisen, who was manager of design engineering; Dale Miller, who was regulatory affairs compliance supervisor; and Steven Moffitt, who was technical services director. An order prohibiting involvement in NRC-regulated activities for a period of one year was also issued to Prasoon Goyal who was a senior design engineer at Davis-Besse at the time. These orders are immediately effective and these individuals have 20 days in which to request a hearing. NRC did issue an order to one other individual in April of 2005, Andrew Siemasko, who was a system engineer at Davis-Besse, and he was also prohibited from engaging in NRC-regulated activities for a period of five years; however, he has requested a hearing on that and the hearing action is ongoing at this time. The NRC has also previously referred these issues to the Department of Justice relative to the Davis-Besse reactor vessel head damage and the Department is still completing their investigation.

The Davis-Besse Nuclear Power Station continues to conduct independent assessments. The assessment of the Organizational Safety Culture, including Safety Conscious Work Environment concluded that this continues to improve at Davis-Besse. The process to establish a strong and effective work environment is in place. There were three areas that were marginally effective. It is believed that accountability for safety in the organization is top-driven instead of being pervasive throughout the entire organization. In the assessment of Engineering Program Effectiveness – the programs were determined to be effective and the quality of engineering work products and support work has improved.

An outage of the Davis-Besse plant was conducted on October 28, 2005 – the outage commenced on October 28, 2005 and returned to the grid on October 31. There were a number of equipment issues at the Davis-Besse plant, and the staff completed over 200 work activities which improved the plant. It was a very successful outage and it was an opportunity to test the processes to get ready for the March 2006 outage.

The Davis-Besse plant conducted a downpower on November 26, 2005. This was conducted due to slowly increasing vibrations on #2 main feedwater pump. Power was reduced to 61% to take the pump off line for inspection. The pump was found out of alignment. Coupling was re-installed and laser alignment was performed. The plant returned to 100% power on November 28.

A Confirmatory Action Letter was issued to the Perry Nuclear Power Plant on September 28, 2005 to confirm NRC's understanding of the actions First Energy was taking to improve performance at the Perry Plant. It included improved performance in four specific areas involving issues related to the quality of maintenance procedures of the plant; problems identified with their corrective action program; human performance problems; and problems in the area of emergency preparedness. A public meeting was held on October 12, 2004 to discuss the Confirmatory Action Letter. During this meeting, First Energy discussed their plans to address improvements at the plant and their plans relative to correcting the repeating substantive cross-cutting issues. The assessment of Perry's performance improvement initiative started November 7, 2005 by NRC in the form of an inspection. A briefing for the licensee was held at the conclusion of that inspection on November 18, 2005. A public meeting was held on December 14, 2005 to discuss the results of that inspection. There were no findings of significance as a result of the inspection. There will be a public meeting held on January 10, near the Beaver Valley site, between managers of the NRC and First Energy to discuss performance of all three nuclear power plants under First Energy's control. It will provide an opportunity for NRC managers from the Region I and Region III offices to meet with First Energy executives to discuss performance issues.

Perry Phase 2 Improvement Initiatives – listed six core areas taken to improve their performance. There are 106 remaining action items that are individually scheduled and will be completed in March 2007. The real emphasis is to ensure that the progress made is continuous and sustainable.

The Beaver Valley Ingestion Exercise Outreach meeting will be Wednesday, March 1 in Columbus. The format for the Outreach meeting will be a full-day meeting, with a half-day of presentations by federal agencies on their federal capabilities, FRMAC resources and their capabilities, the Advisory Team Health roles and responsibilities, and the state and counties roles during the Ingestion phase and the integration of federal and state capabilities. The afternoon will be a table top exercise to discuss what different agencies will be doing at different phases of the event.

The Beaver Valley Station Alert Notification System Self-Assessment report is now available. One follow-up item, they have submitted the siren design report and request for increased testing to the Pennsylvania Emergency Management Agency. Copies went to the Ohio EMA, a number of counties and FEMA Region V. The report went out on December 17, 2005. That will increase the siren testing from monthly to once a week.

On November 21 at Beaver Valley, a report was made to the NRC describing the potential loss of safety function identified during an engineering evaluation that was not identified in postulated fire scenarios. One of the issues was a loss of component cooling water on Unit 1 during a fire scenario. Immediate action was taken to detect any potential fires. Procedure changes have been developed to rectify the situation. Presently, Beaver Valley 1 is in full compliance with NRC regulations regarding fire protection.

FENOC discussed the Unescorted Access Agreement which is currently in draft. FENOC requested some wording adjustments: on the second page, paragraph 1, second line, it states

Parts 73.56 and 26. It should also include Part 73.57 which is the regulation that controls finger prints. In the second paragraph, last sentence, where it states, "Positive results from drug/alcohol testing shall be provided to the state of Ohio agency employer for the employee granted unescorted access, with copies maintained by FENOC." FENOC will provide those results at the request of the employee because their programs are designed to maintain the privacy confidentiality of the subject individuals.

Access of the representatives from the state: FENOC programs are designed to give a high assurance that individuals granted unescorted access to the nuclear facilities are trustworthy, reliable and fit for duty to do their assigned duties. The background would require the state employees to fill out a personal history questionnaire; verify I.D.; do an FBI criminal history check; drug and alcohol test; physiological test; verify employment/unemployment; credit report; develop reference checks; military clarification; and educational verification if within the scope of the background. The individuals would also have to pass a plan access training module. The individuals would be granted unescorted access for the period of the inspection or the observation. State employees may be subject to a random drug testing. Unescorted access and issuance of badge requirements would be based on use.

Tammy Little stated that she would make the changes to the Agreement. Carol O'Claire stated that she would have Nancy Dragani sign the Agreement and send it to Greg Hanlon at FENOC.

#### **APRIL 10, 2006**

Bob Owen reviewed the Department of Health Midwestern Radioactive Material Transportation Committee Report. The Committee has not meet since the last Board meeting. The committee will meet again on June 14-15, 2006, in Cedar Rapids, Iowa.

Ohio EMA attended the National Radiological Emergency Preparedness (NREP) Conference in St Louis, Missouri, March 27-31, 2006. The purpose of the Conference was to provide a professional forum for individuals and agencies involved in radiological emergency preparedness and response. Attendees were present from federal, state, and local emergency management agencies, radiological health programs, nuclear power utilities, and other organizations involved in radiological emergency preparedness and response. Many presentations were given in the week long Conference and are available at the NREP website (<http://www.nationalrep.org/>). Several topics were of particular interest to Ohio:

- The effort to integrate security based exercises into the REP exercise cycle continues. Several pilot table top exercises have been conducted and it is expected that a final policy will be implemented by 2009. The end state of this initiative is for security event scenarios to be fully integrated into the drill and exercise program to the extent that one biennial exercise in each six-year cycle is an EP (Emergency Preparedness) security exercise.
- The exercise schedule was established for DHS, Chicago Field Office states. Future Ohio Exercise dates are as follows:
  - 6/6-7/06 BVPS Full Participation Ingestion Dry Run

- 6/27-28/06 BVPS Full Participation Ingestion Exercise
- 10/4/06 PNPP Partial Participation Dry Run
- 10/24/06 PNPP Partial Participation Exercise
- 5/15/07 DBNPS Full Participation Exercise
- 6/17/08 BVPS Partial Participation Exercise
- 10/7/08 PNPP Full Participation Exercise
- 5/12/09 DBNPS Partial Participation Exercise
- 6/29/10 BVPS Full Participation Exercise
- 10/26/10 PNPP Partial Participation Exercise
- 5/17/11 DBNPS Full Participation Exercise

The Federal Outreach Program held on March 1 was very successful approximately with 70 people attending. A tabletop exercise was conducted in the afternoon of the first day. The FRMAC would be physically located in Pennsylvania and the Advanced Party Checklist would be conducted with three states by teleconference call or a video conference call. On the second day (March 2) FRMAC training was conducted by DOE.

On February 8, 2006, the NRC staff completed its performance review of the Perry Nuclear Power Plant. A public meeting was held on March 14, 2006, to discuss the 2005 performance review. Overall, Perry operated in a manner that preserved public health and safety. Perry remained within the Multiple/Repetitive Degraded Cornerstone column of the Action Matrix based on two open White findings in the Mitigating Systems cornerstone and continuing performance deficiencies in Human Performance and Problem Identification and Resolution. FirstEnergy Nuclear Operating Company (FENOC) was initially notified that Perry had entered the Multiple/Repetitive Degraded Cornerstone column by an August 12, 2004, letter.

In the area of Problem Identification and Resolution, there continued to be numerous findings in the areas of corrective action, identification, and evaluation. In the area of Human Performance, there were numerous findings related to personnel performance weaknesses. While the Corrective Action Program implementation and overall Human Performance have been, and continue to be, focal points of Perry's Performance Improvement Initiative; issues continue to be identified. As a result, the substantive cross-cutting issues in Human Performance and Problem Identification and Resolution remain open.

NRC will continue to assess Perry's performance in these areas through the implementation of the baseline inspection program, which will include a Problem Identification and Resolution inspection, and the Confirmatory Action Letter follow up inspection activities, which will be conducted as action items are completed by Perry staff.

The Perry Plant declared an Alert classification for a fire in a ventilation fan bearing on February 11, 2006. At 3:06 p.m. an operator was dispatched to the fan due to increasing vibration indication. Flames were coming from a fan bearing and the fire brigade was toned out. The fire brigade responded and used a chemical extinguisher and reported the fire to be out at 3:09 p.m. At 3:15 p.m., the shift manager declared the Alert classification. This ventilation equipment is listed in the plant's emergency implementing procedure for fire and required the entry into the emergency plan. The event was terminated at 5:40 p.m. after operations personnel shifted to a

second ventilation fan, and after engineering assessments were completed that other equipment in the area of the fire were not affected.

On February 8, 2006, The NRC staff completed its performance review of Davis-Besse Nuclear Power Station. A public meeting has been tentatively scheduled for May 2, 2006, to discuss the 2005 performance review. Overall, Davis-Besse operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the fourth quarter of 2005 was within the Regulatory Response column of the NRC's Action Matrix, based on one White finding associated with Emergency Preparedness siren testing and reporting of siren Performance Indicator data. The NRC conducted a supplemental inspection during the period of October 17 to 21, 2005. No findings of significance were identified and the White finding was closed. With the closure of that finding, Davis-Besse transitioned to the Licensee Response column of the NRCs Action Matrix at the end of the fourth quarter of 2005.

The Davis-Besse Nuclear Power Station was in Mode 6 (Refueling) when an axial indication was discovered on the Reactor Coolant Pump Cold Leg Drain Line Nozzle to Elbow Weld. This was reported to the NRC as required. A weld repair is being performed in accordance with ASME Code requirements and will ensure long term integrity of the piping. Current outage status is fuel reload is completed, the reactor vessel head has been installed and tensioning of the reactor head studs is in progress.

The Unit 1 Steam Generator Replacement Outage at the Beaver Valley Power Station that was initiated on Feb. 13, 2006 continues to progress. Tours of the plant were conducted for a number of offsite agencies. Refueling is complete and the reactor coolant loops are in the process of being refilled. The current expected outage completion date is April 21, 2006.

The Beaver Valley Power Station Unit 2 tripped off line on Sunday, April 2 due to a failure in the generator exciter coil. An event response team was brought together to investigate the issue. A replacement coil was obtained and the plant was synchronized to the grid early on April 6. While off line, Unit 2 remained the top site priority, but through careful planning by the Outage Central team, there was no impact on the Unit 1 outage schedule.

The NRC recently issued Regulatory Issue Summary (RIS) 2006-03 to provide guidance to licensees for requesting an exemption from the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix E, to hold a biennial emergency preparedness exercise. The Commission may grant exemptions from the requirements for certain circumstances such as impact of natural disasters on emergency preparedness and response personnel, real events on or near the scheduled exercise date, and unavoidable changes to schedules which result in the unavailability of a key exercise player or facility. If an offsite authority notifies a licensee of its inability to participate in a scheduled exercise, or other events or circumstances make it impractical to conduct the exercise as scheduled, the licensee should decide whether to postpone the entire exercise or conduct the exercise without all required offsite authorities. Rescheduling an exercise within the same calendar year does not require an exemption. The licensee is responsible for submitting an exemption request to the NRC. An exemption must be requested for the postponement of an entire biennial exercise to the following calendar year. However, the biennial exercise cycle will remain the same.

FENOC reviewed the summary of items from the status of December 6, 2005 items identified as assessment needs. a) Common initial notification forms will require additional meeting with Ohio and Pennsylvania emergency management agency personnel. Some differences will be required based upon the needs of each State. Perry and Davis-Besse forms are being developed so there is one common form from those stations. b) A meeting was held on March 17 with the FirstEnergy telecommunications manager to begin developing improved information communication from Beaver Valley station to the Ohio Emergency Management Agency assessment room. c) Benchmarking for dose assessment programs is not complete and will be further pursued after the FENOC plant refueling outages. d) MARCS radio system testing and further development of capabilities from Beaver Valley will be pursued following the current refueling outage.

Greg Halnon reviewed the fact sheet on tritium: FENOC Tritium Detection Efforts dated April 3, 2006. Greg stated that Davis-Besse had tritium a spill in 1990, 91 and 93. All the dirt was dug up and there have been no issues since. Perry has an active issue now. He stated that they would take quarterly samples from selected points including the ESW (Emergency Service Water) Pump House, as part of a routine sampling program. A recent sample indicated the presence of low levels of tritium, probably from a feedwater leak from a flange. He explained that the ESW Pump House feedwater flange would now be surveyed by camera to monitor for leakage. The sampling of the lake is now being done more frequently to monitor for any potential seepage into the drinking water. Presently all samples have shown negative for tritium in the lake. FENOC met with the Lake County Board of Health to conduct joint samples of the lake. They will continue to monitor it. There was some media interest. Channel 8 did a balanced report. Perry will continue to do daily samples until they are back in the normal levels.

THE FOLLOWING IS A SUMMARY OF THE STATUS OF THE URSB WORKING GROUP INITIATIVES AT THE END OF SFY06:

1. BVPS INGESTION EXERCISE

A full participation ingestion exercise was conducted on June 27 – 28, 2006. Significant preparations included plume phase and post plume activities involving the Ingestion Zone Recovery Reentry Advisory Group (IZRRAG), the Field Team Center, and the State Operation Center. Federal agencies participated with the IZRRAG and Field Team Center. Preliminary results indicate no findings for the State and two Areas Requiring Corrective Action (ARCA's) for Columbiana County.

2. PNPP PARTIAL PARTICIPATION EXERCISE

A partial participation exercise will be conducted on October 24, 2006, with a dry run exercise on October 4, 2006. The extent-of-play meeting will be conducted on July 11. A partial participation exercise does not involve Field Monitoring Teams or the EOC Operations Room.

3. REACTOR OVERSIGHT PROGRAM

This is an NRC program used to provide continuous oversight of nuclear power plants to verify that each plant is operated in accordance with NRC rules and regulations. Key features of the new program are a risk-informed regulatory framework, risk-informed inspections, a significance determination process to evaluate inspection findings, performance indicators, a streamlined assessment process, and more clearly defined actions the NRC will take for plants based on their performance. The URSB will continue to monitor this program especially as it relates to emergency preparedness.

4. AFTER ACTION PLAN ACTIVITIES

The Exercise After-Action Group completed work on the Beaver Valley ingestion exercise. The group continues to review and revise the Ingestion Zone Recovery/Reentry Advisory (IZRRAG) procedures, the advisories, the Field Team Center (FTC) procedures, as a result of lessons learned from the exercise.

5. PLANT OVERSIGHT

a. PERRY NUCLEAR POWER PLANT (PNPP):

- 1) Perry has two open White findings in Mitigating Systems (2003). The White finding in Emergency Preparedness (2004) has been closed. Perry continues in the fourth column of the NRC oversight program.
- 2) Due to the performance trend at Perry, the NRC has increased regulatory oversight. The NRC issued a Confirmatory Action Letter (CAL) to the utility on September 28, 2005. The NRC conducted a public meeting on March 14, 2006 to give FirstEnergy the opportunity to discuss their corrective actions. Ohio EMA and ODH had representatives present. The outcome was a Phase 2 Performance Improvement Initiative Plan. The Ohio EMA observed the Phase 2 Improvement Initiative inspection. Both ODH and Ohio EMA continue to participate in CAL

follow up inspections. Both agencies will participate in the July 11 public meeting to discuss emergency preparedness action item and effectiveness and review; and human performance action item review.

b. DAVIS-BESSE NUCLEAR POWER STATION (DBNPS):

- 1) FirstEnergy is required to complete four independent assessments as part of the authorization to resume operations at Davis-Besse. This 5 year commitment includes operational performance, corrective action program, engineering program effectiveness, and organizational safety culture.

6. TECHNOLOGY

A review is in progress of current equipment. Recommendations are being considered for any needed new equipment to support a nuclear power plant emergency. The Working Group has assessed the need for consistent plant data in the Assessment Room, and met with FENOC to address this issue on December 6, 2005. FENOC has developed a matrix to allow the Working Group to monitor the progress of their actions.

Teletrix equipment has been purchased for training of first responders. There is a review in progress to assess Plume Tracker, a software training program for the Field Monitoring Teams.

7. NATIONAL INCIDENT MANAGEMENT SYSTEM

The State Radiological Emergency Preparedness (REP) Plan for Nuclear Power Plants requires modification to become NIMS compliant by September 2006. Changes have been made to the state REP Plan and have been submitted to DHS. Ohio EMA will continue to implement NIMS as inconsistencies are discovered.

8. STATE DOSE ASSESSMENT

Ohio EMA provided RASCAL training to working group members in May 2006. The working group will assess RASCAL and OEMA assessment programs in July and August and will provide recommendations at an upcoming URSB Statutory meeting.

9. JIOP CLARIFICATION

An agreement between FENOC and the State of Ohio has been finalized that includes details of the requirements for unescorted site access for the Joint Inspection Observation Program (JIOP). The next step is for the State to identify individuals that will participate in the JIOP on an unescorted basis and pursue FENOC access requirements.

10. KI

The shelf life of KI for the general public and emergency workers is approaching expiration (May 2007). The State of Ohio is seeking clarification from NRC on their position for replenishing the current KI tablet supply.

11. OHIO AGRICULTURE BROCHURE

The Ohio Agriculture Brochure will be reviewed and updated as necessary and distributed in the Fall of 2006.

For more information on the above activities, please visit the URSB homepage at <http://www.ursb.ohio.gov> or contact the URSB Secretary at (614) 889-7160.

## URSB RESOLUTIONS LOG

Resolution Number	Description of Action	Date Signed
05-02	Resolution for the Utility Radiological Safety Board Requesting FENOC Provide Unescorted Access for the State of Ohio Observation Program.	July 11, 2005
05-01	Resolution Thanking Dale W. Shipley for His Service as Chair of the Utility Radiological Safety Board of Ohio	January 10, 2005
03-04	Resolution for Utility Radiological Safety Board Removal of Inactive Member from the Citizen Advisory Council	July 7, 2003
03-03	Resolution Appointing Citizens to Serve on the URSB Citizen Advisory Council on Nuclear Safety	July 7, 2003
03-02	Resolution Issuing Utility Radiological Safety Board Proclamations to Members of the URSB Citizen Advisory Council on Nuclear Safety	July 7, 2003
03-01	Resolution for Utility Radiological Safety Board Appointments Commencing January 6, 2003 for Medical Expert on the URSB Citizen Advisory Council on Nuclear Power Safety	January 6, 2003
02-03	Resolution for Utility Radiological Safety Board Appointments Commencing July 1, 2002 for Student Membership on the URSB Citizen Advisory Council on Nuclear Power Safety	October 7, 2002
02-02	Resolution for Utility Radiological Safety Board Appointments Commencing July 1, 2002 to Membership on the URSB Citizen Advisory Council on Nuclear Power Safety	July 8, 2002
02-01	Resolution Issuing Utility Radiological Safety Board Proclamations to Members of the URSB Citizen Advisory Council on Nuclear Safety	July 8, 2002

# URSB JOINT INSPECTION OBSERVATION PROGRAM



## **URSB JOINT INSPECTION OBSERVATION PROGRAM**

The Joint Inspection Observation Program (JIOP) was implemented by the Board in April 1991 by adopting URSB Resolution 91-002, "Resolution Adopting General Agreement Between the U.S. Nuclear Regulatory Commission and Ohio's State Liaison Officer for State Observations of NRC Inspections of Nuclear Power Plants". The agreement allows URSB JIOP members to observe NRC inspections of the Perry and Davis-Besse nuclear power plants. Under "adjacent state observation" status, a second agreement with NRC Region I, JIOP participants have observed NRC inspections of the Beaver Valley Power Station. A "guidelines document" has been developed setting the conditions and procedures for member agencies' participation in the program. This document includes the goals and objectives of the Joint Inspection Observation Program. The URSB JIOP Goals and Objectives are delineated below.

In SFY05 the URSB JIOP participants observed three NRC inspections. For each observation a report is generated and forwarded to the NRC for its review and comment. The table at the end of this section lists these reports for the past five years. All JIOP reports are available to the public by request to the URSB Secretary. Requests may be made by telephone at (614) 889-7160 or in writing to:

URSB Secretary  
The Utility Radiological Safety Board  
2855 West Dublin Granville Road  
Columbus, Ohio 43235-2206

### **URSB JIOP Goals and Objectives**

To observe Nuclear Regulatory Commission inspections at Ohio nuclear power facilities and the Beaver Valley Power Station...

- To participate with the NRC to observe inspections.
- To communicate to the public, URSB member agencies, and interested parties first-hand information obtained by observing inspection, in accordance with NRC protocol.
- To communicate with the NRC resident, regional, and national inspectors.

To raise issues of health, safety, and economic concerns with the Board...

- To observe NRC inspections and obtain timely, first-hand information which will assist in formulating state positions on public health, safety, performance, and/or cost issues.
- To maintain a historical database to monitor the economical production and safe operation of nuclear energy.

To provide the URSB with reports that identify the number of inspections observed during the quarter, summarize observation results and recommendation, and address comments made by the NRC and the public.

## JOINT INSPECTION OBSERVATION PROGRAM REPORTS

<b>JIOP REPORT NO.</b>	<b>DATE(S) OF INSPECTION</b>	<b>PLANT</b>	<b>AREA(S) OF INSPECTION</b>	<b>OBSERVING AGENCY</b>
06-06	6/5-9/06	PNPP	Access Control to RAD Areas	EMA
06-05	6/12-16/06	PNPP	Human Performance & Action Items	EMA
06-04	3/9-16/06	PNPP	Access Control & ALARA	EMA
06-03	2/13-17/06	DBNPS	Corrective Action Item Review	EMA
06-02	2/3-17/06	PNPP	EP Program	EMA
06-01	1/19-13 1/17-20/06	PNPP	Action Item Review	EMA
05-03	Jan-May 2005	PNPP	Supplemental Inspection 95003	EMA
05-02	1/10/05	PNPP	Special Inspection 93812	EMA
05-01	2/7/05	BVPS	Emergency Preparedness Program	EMA
04-03	5/24/04	PNPP	Evaluation of White Finding	EMA
04-02	1/12/04	DBNPS	Human Performance Assessment	ODH
04-01	2/9/04	DBNPS	Emergency Preparedness Program	EMA
03-02	2/24/03	BVPS	Strategic Performance	EMA
03-01	2/24/03	PNPP	Emergency Preparedness Program	EMA

Note: Reports will not be made public until after the NRC has released their report, per NRC protocol

# FINANCIAL REPORT



DESCRIPTION	SFY02	SFY03	SFY04	SFY05	SFY06
Appropriations					
Emergency Management	\$840,000	\$876,000	\$1,020,068	\$1,020,068	\$1,110,459
Health	\$761,900	\$793,000	\$799,267	\$793,000	\$793,000
Environmental Protection	\$219,080	\$243,675	\$232,000	\$232,000	\$263,449
Agriculture	\$68,879	\$71,555	\$66,550	\$66,550	\$70,286
Commerce					
Public Utilities Commission					
<b>Total Appropriation</b>	\$1,889,859	\$1,984,230	\$2,117,885	\$2,111,618	2,237,194
Expenditures					
Emergency Management	\$844,131	\$918,234	\$1,020,068	\$1,020,068	\$1,110,459
Health	\$671,439	\$751,680	\$799,267	\$541,294	\$551,674
Environmental Protection	\$185,552	\$185,854	\$182,752	\$215,137	\$204,842
Agriculture	\$45,000	\$48,000	\$66,550	\$66,550	\$70,286
Commerce					
Public Utilities Commission					
<b>Total Expense (Year-end Balance)</b>	\$1,746,122	\$1,903,768	\$2,068,637	\$1,843,049	1,937,261

# AGENCY OVERVIEWS



## **OHIO EMERGENCY MANAGEMENT AGENCY**

The Ohio Emergency Management Agency (Ohio EMA) was established under Ohio Revised Code Chapter 5502.22 as a division of the Department of Public Safety. The mission of the Ohio EMA is to coordinate state emergency preparedness and civil defense activities. Phases of mitigation, preparedness, response and recovery are designed to minimize effects upon the population caused by all hazards. The agency maintains the State Emergency Operation Center, the data links to nuclear power plants, and communications to subdivisions. The Ohio EMA implements federal and state policies and programs, and supports county emergency management agencies.

Ohio EMA's executive director supervises the day-to-day operations of the agency's professional and technical support personnel and serves as the chair of the URSB.

The Ohio EMA is organized into three groups each consisting of several branches. The Operations Division is comprised of the Radiological; Readiness and Response; Plans; Field Operations, Training & Exercise Branches. The Grants Division is comprised of the Mitigation; Recovery and; Grants Branches. The Technical Support Division is comprised of the Communication; Fiscal; Data Management; and Facilities, Logistics and Calibration Branches. The Ohio EMA is responsible for Nuclear Power Plant incident response, accident assessment, instrument maintenance, training, planning, exercises and drills, utility, federal, and public interfacing and facilitation of the URSB. In addition, Ohio EMA continues to monitor activities relating to high level waste, and is coordinating the transport of spent fuel and high level radioactive materials across Ohio in the areas of training and equipping of county emergency responders.

### **Nuclear Power Plant Exercises and Drills**

Ohio EMA is responsible for the coordination of State Agency participation in nuclear power plant exercises. These exercises can take the form of small communications tests involving only State and County EMAs to major federally graded exercises. In SFY06, there was one federally graded exercise.

The 2006 Beaver Valley Power Station Ingestion exercise was conducted on June 27 with a plume phase demonstration and on June 28 with an ingestion phase demonstration. The plume phase was conducted "after hours" starting approximately 4:30 pm. The ingestion phase was conducted as a daytime exercise starting approximately 9:00 am. A dry run was conducted on June 6 and 7. The federal agencies participated with the state agencies at the State EOC and in the county for field sampling on June 28. A federal outreach program was conducted on March 1 and 2. Columbiana County demonstrated plume phase activities on June 27 and supported state activities on June 28. Other states involved in the 2006 Beaver Valley exercise included Pennsylvania and West Virginia.

Preliminary results indicate for the State of Ohio: all 22 criterion selected for demonstration were met; no Deficiencies; no Areas Requiring Corrective Action (ARCA's); one Planning Issue. Strengths for the State include: EOC Executive Group demonstrated the ability to simultaneously

handle real world and REP activities; Day 2 Controller developed spread sheets for laboratory analysis greatly simplified the process; EOC Staff exhibited professionalism in carrying out their responsibilities. Preliminary findings for Columbiana County include: 18 criterion of the 20 selected for demonstration were met; no Deficiencies, two Areas Requiring Corrective Action; one Planning Issue. Strengths for Columbiana County include: proactive participation from the Radio Club; outstanding commitment to leadership. Overall, the 2006 Beaver Valley exercise was successful for both the State of Ohio and Columbiana County.

### **Nuclear Power Plant Incidents**

The Perry Nuclear Power Plant declared an Alert on Saturday, February 11, 2006 due to a fire in a motor control switch gear in the miscellaneous electrical equipment area. The fire was extinguished by the plant fire brigade. The fire was caused by an overheated bearing on the fan. The emergency event was terminated at 5:40 pm on February 11 when the fan was de-energized and the ventilation train was switched. All associated equipment was verified as undamaged and operable. There was no radiological release and no protective action recommendation for the public. The Nuclear Regulatory Commission (NRC) monitored the event but did not activate its emergency response center. The State of Ohio assessment room was activated to monitor the emergency. All notifications were conducted per procedures.

The Perry Nuclear Power Plant declared an Unusual Event 1630 on June 20, 2006 due to a seismic event felt at the plant. The earthquake a magnitude 3.4 was approximately 3 miles from Perry, Ohio. There was no damage at the Perry plant and the event was terminated at 2005 on June 20. Notifications were made as per procedures.

### **Emergency Planning**

Ohio EMA completed the annual revision of The Ohio Plan for Response to Radiation Emergencies at Commercial Nuclear Power Plants in January 2006. There were no significant revisions.

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## **OHIO DEPARTMENT OF HEALTH**

The Ohio Department of Health (ODH) provides support to the URSB through its statutory functions in matters of radiation protection. ODH serves as the lead state agency on all health physics issues within Ohio, monitors the radiological performance of the nuclear power plants, provides emergency response personnel and dose assessment team leadership in the event of a radiological emergency, evaluates the ability of hospitals to treat contaminated injured people, ensures radiological environmental monitoring outside of commercial nuclear power plant boundaries and provides input on URSB Working Group initiatives.

### **Nuclear Power Plant Emergency Response Exercises**

ODH staff participates in nuclear power plant exercises. This past year, ODH staff participated in the Beaver Valley Power Station (BVPS) full participation emergency preparedness and ingestion zone exercise. To prepare for the exercise, ODH staff participated in a tabletop practice

drill in October of 2005, in the BVPS systems training on May 18th, 2006 and a second tabletop training event on May 19th, 2006. The dry run was held on June 6th and 7th, 2006 and the graded exercise was held on June 27th and 28th, 2006. Additional preparations included revisions to emergency response procedures with associated training to personnel. In August 2005, ODH personnel attended the Beaver Valley Power Plant annual offsite systems overview training session.

In support of the BVPS exercise, ODH staffed seventeen positions. These positions were staffed at the following locations: the State Emergency Operations Center (EOC); the County EOC; the nuclear plant Emergency Operations Facility (EOF); and the Joint Public Information Center (JPIC). In addition, ODH fielded a sample screening team, the field monitoring teams, and provided exercise controllers for the field monitoring teams.

ODH chairs and is responsible for convening the Ingestion Zone Re-entry and Recovery Advisory Group (IZRRAG) in the event of a nuclear power plant accident. One Ingestion Zone exercise was held this year for the Beaver Valley Power Station; the ingestion zone dry run took place on June 7th, 2006 with the ingestion zone graded exercise taking place on the 28th of June, 2006. Prior to the ingestion zone exercise the IZRRAG held meetings to review and revise existing procedures.

ODH personnel also participate in the Utility Radiological Safety Board After-Action Group which has incorporated lessons learned from past ingestion zone exercises in preparation for upcoming exercises. The After-Action Group has elected to conduct ingestion tabletop exercises every two years, in the odd-numbered years, when the state conducts one nuclear power plant exercise. This increased periodicity will allow for more frequent procedural review and will increase the IZRRAG team's preparedness and readiness for graded exercises or actual emergencies.

ODH staff evaluates MS-1 medical drills at designated hospitals inside the 10-mile Emergency Planning Zone. These exercises are designed to ensure medical facility capabilities in a radiological emergency and satisfy the requirements identified in the Federal Emergency Management Agency's Guidance Memorandum MS-1, "Medical Services".

### **Nuclear Power Plant Inspections**

Throughout the fiscal year, ODH has attended a number of joint NRC/FENOC public meetings designed to inform the public on the status of corrective actions and plant conditions. This past year meetings were attended for the Davis-Besse and Perry nuclear power plants.

ODH Bureau of Radiation Protection staff participates with the U.S. NRC in the Joint Inspection Observation Program (JIOP) inspections. Efforts are ongoing in trying to obtain unescorted access for ODH personnel for JIOP inspections.

### **Midwestern Radioactive Material Transportation Committee**

Robert Owen, Chief of the Bureau of Radiation Protection, Ohio Department of Health, is the gubernatorial appointee to the committee. Each state has a both a gubernatorial and legislative appointee to the committee, which acts as a forum for the states with DOE in developing policies

and procedures for the safe transportation of radioactive material, including spent nuclear fuel, transuranic waste, low-level radioactive waste, and highway route controlled quantities (HRCQ) of radioactive material. ODH works with OEMA and PUCO in presenting Ohio's position on transportation issues. Rep. Michael Skindell is the legislative appointee for Ohio.

### **Potassium Iodide (KI) Distribution**

The KI tablets provided by the NRC and packaged for the public by ODH are due to expire in May of 2007. ODH has requested the NRC provide the State of Ohio information on the NRC's position concerning replacement of these tablets.

The FDA issued a shelf-life extension of two years for the KI used in the State of Ohio for Emergency Workers and the institutionalized populations within the ten mile Emergency Planning Zone; this extension will expire in August of 2007. Future KI issues may involve either another FDA extension or possible replacement of these KI tablets.

### **Radiological Environmental Monitoring**

ODH staff oversees a variety of radiological environmental monitoring activities in the vicinity of Davis-Besse Nuclear Power Station (DBNPS), Perry Nuclear Power Plant (PNPP), and Beaver Valley Power Station (BVPS). Groundwater, lake water, potable water, bottom sediment, soil, milk, fish, vegetation and air samples are collected by local health departments (under contract with ODH) and analyzed by the ODH Laboratory. All sample results indicated that radioactivity levels are at or near the Lower Limit of Detection (LLD) and well below the NRC release criteria.

There is an emerging issue of the potential release of Tritium through groundwater pathways at nuclear power plants. ODH is working with FENOC to ensure this issue is being addressed at all three plants.

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## **OHIO ENVIRONMENTAL PROTECTION AGENCY**

The Ohio Environmental Protection Agency's purpose is to maintain a safe and healthy environment for the population of Ohio. To support the goals of the URSB, the Ohio EPA Radiological Safety Program collects and monitors performance trends of monthly, annual, and special operating reports on air, water, and hazardous waste generation from the nuclear plants. A synopsis is presented to the URSB on a quarterly basis. The Agency has one full time staff member and twenty-five other employees who devote a portion of their time to the activities supported by the Board. Each one contributes their particular expertise to the work of the Board, as it is needed.

Nuclear plants have permits for stationary combustion sources such as auxiliary boilers and the emergency diesels. There were no air permit violations by the nuclear plants for in SFY06. The Nuclear Regulatory Commission regulates other routine air emissions associated with the operation of a nuclear power plant.

Ohio EPA receives and evaluates monthly wastewater discharge reports submitted under National Pollutant Discharge Elimination System (NPDES) permits. These permits establish

limits on discharges of; hydrocarbons, metals, treatment chemicals, dissolved oxygen, and waste heat from the plant sewer and process effluent outfalls. There were two reports of an NPDES violation in SFY06. These were the result of treated water with a level of residual chlorine that exceeded the permit limit.

Any facility generating more than 200 pounds of hazardous waste, as defined in ORC 3745 Sections 50 and 51, a month must register with Ohio EPA and obtain a generator's identification number. This registration allows the plant to store and manifest hazardous waste for shipment off-site. The plants must make an annual report each calendar year and submit the report to Ohio EPA, Division of Hazardous Waste Management. These reports detail the types of waste generated and the quantities involved. These reports also list where each waste is sent for treatment, storage, or disposal. There were no known discrepancies or violations of either plant's permit in SFY06.

National drinking water standards have been established to ensure that our drinking water does not contain unhealthy levels of contaminants. Contamination standards for inorganic chemicals, volatile organic chemicals, pesticides, and herbicides are expressed as Maximum Contamination Limits (MCLs). Public water providers must test their water regularly, and submit the results to Ohio EPA. Public water providers have to test their raw and finished water for 83 substances. There were no known radiological excursions in Ohio for SFY06.

While there has never been an accident involving a release of radiation from either plant site, the Division of Emergency and Remedial Response, Emergency Response Unit has committed staff to act as environmental county liaisons if an event should occur. In addition, Ohio EPA provides a sampling team of 21 people to measure any deposition that could affect soil, surface water, snow, or vegetation. This sampling team, known as the Radiological Assessment Team is continually trained and briefed on any changes affecting the team's role. Team membership includes most Ohio EPA divisions to ensure representation of all needed programmatic expertise. This team participates in post plume exercises and drills run by the State or the plants as part of their regular exercise schedule. This team participated in the Ingestion Zone Exercise for Beaver Valley Power Station this year.

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## **OHIO DEPARTMENT OF AGRICULTURE**

The Ohio Revised Code directs the Ohio Department of Agriculture (ODA) to protect the food supply as it relates to Food Safety and Animal Health. Additionally, the Code of Federal Regulations directs ODA to promote public safety involving nuclear power plant operations. ODA, in coordination with the United States Department of Agriculture (USDA) and the Ohio State University Cooperative Extension Service, estimates damage to crops and livestock from radiation incidents.

ODA maintains emergency response plans and monitoring programs in order to respond to and mitigate the effects of nuclear incidents. ODA coordinates procedures for the protection and recovery of livestock, poultry, forage and browse plants from radiation effects. ODA reviews and

maintains embargo and quarantine procedures for all affected food, agricultural commodities, and livestock within an affected area and for possible outlets for contaminated products.

If an incident occurs, ODA assesses and deals with problems impacting agriculture and its related industries. ODA, in coordination with the Ingestion Zone Recovery and Re-entry Advisory Group (IZRRAG) and the counties involved, determines affected target groups including farmers, food producers, distributors and processors in the ingestion exposure pathway and gives them emergency response information.

### **Nuclear Power Plant Emergency Planning**

ODA participated in the scheduled IZRRAG monthly meetings. The group reviewed and revised procedures and advisories in preparation for the graded Beaver Valley Power Station Ingestion Zone exercise scheduled for June 28<sup>th</sup>, 2006. ODA participated in a Beaver Valley Power Station practice drill on April 18<sup>th</sup> and a Dry Run exercise on June 7<sup>th</sup> in preparation for the graded exercise. Since graded Ingestion Zone exercises are conducted every six years, the After Action Working Group decided to conduct table top Ingestion Zone exercises every two years in an effort to be better prepared for responding to emergency events. In addition, ODA participated in monthly URSB After Action Working Group meetings.

### **Other Related Miscellaneous Items**

On March 1<sup>st</sup> and 2<sup>nd</sup> of 2006, members of ODA attended the FRMAC and Sampling Team training at EMA. The training was provided by the NRC in conjunction with EMA. All of ODA's senior management and field sampling team members have been Incident Command System (ICS) trained for ICS 100 and ICS 200 in addition to NIMS IS 700.

In October 2005, ODA's Bio-Security Manager, Mr. Anthony Mitchell, was appointed by the Director of Agriculture to represent ODA on the Utility Radiological Safety Board of Ohio.

During SFY06, ODA attended monthly URSB Working Group meetings, quarterly URSB Board meetings, URSB After Action Working Group meetings and NEPAC meetings.

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## **OHIO DEPARTMENT OF COMMERCE DIVISION OF INDUSTRIAL COMPLIANCE**

The overall mission of the Ohio Department of Commerce (ODC), Division of Industrial Compliance is to serve Ohio by promoting the safety and soundness of our customer industries through an innovative and effective team of highly motivated employees. The Ohio Department of Commerce is one of the state's chief regulatory agencies. Commerce is different from most state agencies, since it must operate like a private business enterprise as opposed to being funded primarily by Ohio's General Revenue Fund dollars. The agency exists on the fees and assessments from the industries that it regulates.

During SFY06, the Department was composed of the following divisions: Administration, Financial Institutions, Industrial Compliance, Labor & Worker Safety, Liquor Control, Real

Estate, Securities, State Fire Marshal, and Unclaimed Funds. The Division of Industrial Compliance headed by the Division Superintendent is streamlined into three efficient and forward-looking Bureaus: the Bureau of Construction Compliance; the Bureau of Operations & Maintenance and the Bureau of Plans & Specifications.

### **URSB Involvement**

ODC is a member of the Ohio Utility Radiological Safety Board (URSB). ODC is committed to help ensure nuclear safety for the citizens of Ohio by monitoring the Davis-Besse and Perry Nuclear Power Plants quality assurance programs.

### **Agency Specific Activities**

During SFY06, ODC continually monitored the Davis-Besse and Perry Nuclear Power Plants In-service Inspection Program of Nuclear Power Plant Components. Chapter 4101:4-5 of the Ohio Administrative Code mandates this monitoring. In this chapter it refers to Section XI, Rules for In-service Inspection of Nuclear Power Plant Components, of the ASME Boiler and Pressure Vessel Code. This Section provides rules for the examination, testing, and inspection of components and systems in a nuclear power plant.

The rules of this Section constitute requirements to maintain the nuclear power plant and to return the plant to service, following plant outages, in a safe and expeditious manner. The rules require a mandatory program of examinations, testing, and inspections to evidence adequate safety. The rules also stipulate duties of the Authorized Nuclear In-service Inspector to verify that the mandatory program has been completed, permitting the plant to return to service in an expeditious manner.

The Owner of the nuclear power plant is assigned the responsibilities to develop a program, which will demonstrate conformance to the requirements of this Section. These responsibilities include: (a) Provision of access in the design and arrangement of the plant to conduct the examination and tests; (b) development of plans and schedules, including detailed examination and testing procedures for filing with the enforcement and regulatory authorities having jurisdiction at the plant site; (c) conduct of the program of examination and tests, system leakage and hydrostatic pressure tests, as well as in-service tests of pumps and valves; (d) recording of the results of the examinations and tests, including corrective actions required and the actions taken.

Duties of the Authorized Nuclear In-service Inspector are assigned by Section XI to verify that the responsibilities of the Owner and the mandatory requirements of this Section are met. Duties performed this past fiscal year by the Authorized Nuclear In-service Inspectors included: (a) witnessing of pressure tests; (b) reviewed nondestructive examination procedures and repair programs; (c) verified that the visual examinations and tests on pumps and valves had been completed and the results recorded.

## **Future Activities**

The Department Staff will continue to monitor the In-service Inspection Programs of Davis-Besse and Perry Nuclear Power Plants, and will provide technical assistance to the URSB when questions arise regarding the requirements of ASME Section XI.

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## **PUBLIC UTILITIES COMMISSION OF OHIO**

### **The Public Utilities Commission of Ohio**

The Public Utilities Commission of Ohio (PUCO) works to assure all residential and business consumers access to adequate, safe and reliable utility services at fair prices, while facilitating an environment that provides competitive choices. The PUCO regulates electric, natural gas, telecommunications, water/wastewater and transportation companies operating in the State of Ohio.

### **The PUCO Transportation Department**

The PUCO Transportation Department works to facilitate safe and secure commercial transportation on public highways, railroads, and at transportation facilities as well as promote quality and equitable service in a proactive manner for the public and commercial carriers in the household goods, bus, and ferryboat industries.

The PUCO Transportation Department is responsible for enforcing state and federal motor carrier and rail safety requirements within the state of Ohio.

### Transport of Radioactive Materials – PUCO Regulatory Responsibilities & Capabilities

The Governor has designated the PUCO as the state's routing agency for radioactive materials and spent nuclear fuel. The PUCO Transportation Department is responsible for the enforcement of federal and state regulations governing the highway and rail road transport of hazardous materials, including radioactive materials. The Transportation Department staff includes 19 Hazardous Materials Specialists trained to standards prescribed by the United States Department of Transportation (US DOT), the Federal Motor Carrier Safety Administration (FMCSA) and the Commercial Vehicle Safety Alliance (CVSA). These personnel are certified to conduct inspections of highway radioactive materials shipments using the CVSA Level VI, Enhanced North American Standard (NAS) Inspection for Radioactive Shipments. The Level VI inspection procedure is limited to radiological shipments and includes inspection procedures of the US DOT/CVSA NAS Level I inspection. The Level VI inspection procedures include US DOT radiological requirements and stringent "out-of-service criteria" for trucks transporting the materials. CVSA Level VI inspections include close examination of the driver, the vehicle, and the radioactive materials packaging and cargo. Radioactive materials shipments that are not examined under the Level VI process are inspected using the North American Standard Level I procedures. Also, several PUCO Transportation Department personnel are certified by the US DOT Federal Railroad Administration (FRA) to inspect rail shipments of radioactive materials.

Along with checking for compliance with the US DOT Hazardous Materials Regulations, these PUCO personnel are also FRA certified to inspect rail equipment, track, and operating practices.

When encountered in transportation, PUCO HM Specialists regularly inspect packagings of Class 7 materials that are not subject to the CVSA Level VI inspection criteria. These inspections include a radiological survey. These personnel are also trained in radiological decontamination and control procedures found in 49 CFR 173.443.

PUCO personnel often work very closely with the staffs of the Ohio Emergency Management Agency and Ohio Department of Health to coordinate and conduct inspections of high level and special interest radioactive materials shipments. This includes radioactive industrial sources, shipments of radioactive waste from the de-commissioning of the US DOE Fernald and Mound facilities as well as containers of depleted Uranium Hexafluoride (UF<sup>6</sup>) in transit from Oak Ridge, KY to the US DOE Piketon, OH facility.

During the previous year PUCO personnel inspected several highway route controlled quantity shipments of Cobalt <sup>60</sup> originating in Canada, and 18 shipments of transuranic radioactive waste originating at Battelle's West Jefferson, Ohio facility before shipment to a US DOT site in South Carolina.

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# NUCLEAR POWER PLANT ACTIVITIES



## NUCLEAR POWER PLANT ACTIVITIES

Two nuclear power plants are located in Ohio, the Davis-Besse Nuclear Power Station and the Perry Nuclear Power Plant. A third nuclear power plant, the Beaver Valley Power Station, is located in Pennsylvania within 5 miles of the Ohio border. The following three sections describe the plants in more detail and activities of SFY06.

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### DAVIS-BESSE NUCLEAR POWER STATION



First Energy Nuclear Operating Company's Davis-Besse Nuclear Power Station, near Oak Harbor in Ottawa County, conducted a mini-outage October 29 through 31, a refueling outage from March 6 to May 4, and a short 13 hour elective maintenance outage in June 2006. The Unit has run safely and reliably for the balance of the past twelve months.

Personnel safety results were good overall with 5.4 million person hours without a lost time accident through the end of July 2006. There were a total of 5 Occupational Health and Safety Administration recordable incidents during the past twelve months.

Other Davis-Besse highlights:

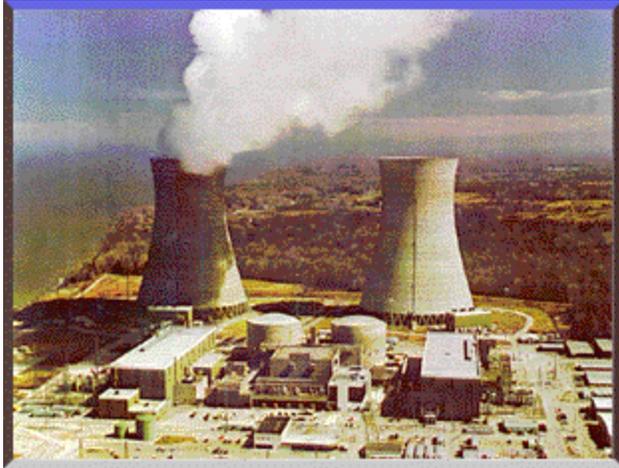
- Independent assessments were completed as part of the NRC Confirmatory Action Letter during the past year with overall favorable results. Some areas for improvement were identified and added to the Davis-Besse action plan or corrective action program. Additional NRC inspections and Davis-Besse self assessments continued during the year to provide oversight and monitoring of improvement initiatives. Examples of the independent assessments are as follows:
  - Operations Performance
  - Corrective Action Program Implementation

- Organization Safety Culture and
- Engineering Program Effectiveness
  
- The Nuclear Regulatory Commission returned Davis-Besse to standard Reactor Oversight Process from the escalated regulatory status of the 0350 Inspection Procedure (invoked in 2002 as a result of the corrosion on the reactor head). NRC returned Davis-Besse to the standard Reactor Oversight Process effective July 1, 2005.
  
- Siren upgrade replacing 28 older sirens was completed during the past year. Overall siren test performance has been very good with a 12 month success percentage of 99.83% at the end of July 2006.

There was overall good regulatory performance during the past twelve months with all Nuclear Regulatory Commission Reactor Oversight performance indicators maintained in the Green, licensee response band.

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## PERRY NUCLEAR POWER PLANT



The Perry Nuclear Power Plant (PNPP) located on the shores of Lake Erie in Lake County, approximately 35 miles northeast of Cleveland, began commercial operation in November 1987. The plant is owned by First Energy Nuclear Operating Company and operated by the First Energy Nuclear Operating Company (FENOC).

PNPP is a single unit plant that employs a General Electric boiling water reactor (BWR). A BWR is designed to use the steam that is produced inside the reactor to drive the turbine generators. Under ideal conditions, PNPP is capable of producing enough electricity to power 1,220,360 homes in an average month.

The plant continued operations safely and reliably during the twelve month period with one shutdown during May 2006 to repair a leak on a reactor recirculation system hydraulic control line.

Personnel safety results were good overall with no lost time accident during the twelve month period from July 2005 through the end of June 2006. There were a total of two Occupational Health and Safety Administration recordable incidents during the past twelve months.

Perry Plant remained in the fourth column of the NRC Action Matrix for multiple degraded cornerstones. The plant staff completed its response to the NRC 95003 inspection during the month of July 2005 and provided commitments to the Confirmatory Action Letter later in the year.

Two NRC 95001 inspections were successfully completed during November (performance indicator) and December (emergency preparedness) 2005.

The plant staff continues their efforts under the Performance Improvement Initiative to provide effective corrective actions in response to NRC concerns/commitments as well as internal assessments. Good progress has been made to date with favorable NRC inspection results through the end of July 2006.

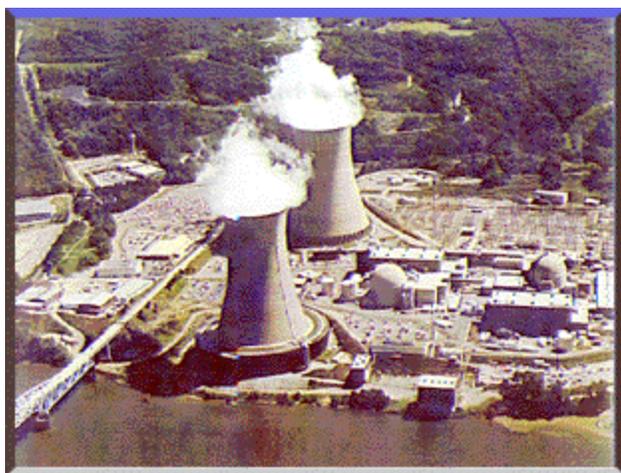
There were two emergency plan events declared during the past twelve months. In both cases, the plant personnel response, offsite notifications, and actions were conducted as required by the emergency plan.

- An Alert was declared on February 11, 2006 when a very small fire affected a fan bearing in a system used to provide ventilation to the electrical switchgear room of the plant. The fire was extinguished in less than 15 minutes following identification.
- An Unusual Event was declared on June 20, 2006, due to a minor earthquake occurring in Lake Erie. Operations and engineering personnel examined plant systems and structures and concluded there were no affects from the earthquake that affected plant performance and safety.

All the NRC Reactor Oversight Program performance indicators for the Perry Plant are in the green response band.

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## **BEAVER VALLEY POWER STATION**



The Beaver Valley Power Station (BVPS) is located in Shippingport, Pennsylvania on the Ohio River approximately 5 miles from the Ohio border. The plant is a two-reactor site, with Unit 1 commencing operation in October 1976 and Unit 2 in November 1987. Beaver Valley Unit 1 and Unit 2 are owned by First Energy Nuclear Operating Company and operated by its subsidiary First Energy Nuclear Operating Company. Together the units can produce enough power to supply electricity to 1,604,160 homes in an average month.

The plant operated safely and reliably during the year. Cooling tower modifications and improvements in condenser instrumentation improved the summer operations of Unit 2.

There were a few equipment issues on non-nuclear systems that did impact maintaining Unit 1 at full power operations, but these were each resolved in the timely manner. Unit 1 successfully

achieved 456 days of continuous operations prior to shutting down on February 13, 2006 to enter its 17<sup>th</sup> refueling outage.

The refueling outage for Unit 1 was completed on April 19, 2006. In addition to normal refueling activities, the reactor vessel head and three steam generator were also replaced. Outage goals for duration, budget, personnel safety, and radiation exposure were successfully met. The outage was completed in 65 days, 19.3 hours, 11 days ahead of the planned outage schedule. Beaver Valley Unit 1 was the first plant in the world to complete an outage of this scope within a 65 day timeframe.

Beaver Valley Unit 1 experienced two shutdowns during the month of May 2006. The first shutdown was conducted on May 19 to perform additional balancing of the main turbine. The Unit returned to full power operations on May 21. The second shutdown was conducted on May 26 to address an equipment issue with one train of the solid state protective system. The Unit was returned to full power operation on May 28, following corrective maintenance on the system.

Beaver Valley Unit 2 also operated well during the past year. It did experience an automatic reactor trip on April 2, 2006 due to a failed pole on the exciter stator of the main transformer. The Unit was off line for 82 hours and returned to 100 percent power operation on April 7, 2006. Later that same month, the Unit experienced an inadvertent actuation of a fire protection system that resulted in starting a planned shutdown of the Unit. The plant staff received approval of an action plan with the NRC that prevented a full shutdown of the Unit. Power was lowered to 20 percent power and following additional corrective actions returned to full power operations on April 12, 2006.

There were no fuel defects in either Unit during the past year.

There was good performance in the area of personal safety for the following year with only two Occupational Safety and Health Administration recordable incidents and no lost time accidents.

There was overall good regulatory performance during the past twelve months with all Nuclear Regulatory Commission Reactor Oversight performance indicators maintained in the Green, licensee response band.