

# TABLE OF CONTENTS

<b>REPORT FROM THE CHAIRMAN</b>	<b>3</b>
<b>DESCRIPTION OF THE URSB</b>	<b>5</b>
<b>URSB ACTIONS AND ACTIVITIES</b>	<b>7</b>
<b>URSB CITIZENS ADVISORY COUNCIL</b>	<b>19</b>
<b>URSB JOINT INSPECTION OBSERVATION PROGRAM</b>	<b>21</b>
<b>FINANCIAL REPORT</b>	<b>24</b>
<b>AGENCY OVERVIEWS</b>	<b>26</b>
<b>Ohio Emergency Management Agency</b>	<b>27</b>
<b>Ohio Department of Health</b>	<b>29</b>
<b>Ohio Environmental Protection Agency</b>	<b>31</b>
<b>Ohio Department of Agriculture</b>	<b>32</b>
<b>Ohio Department of Commerce</b>	<b>33</b>
<b>Public Utilities Commission of Ohio</b>	<b>34</b>
<b>NUCLEAR POWER PLANT ACTIVITIES</b>	<b>36</b>
<b>Davis-Besse Nuclear Power Station</b>	<b>37</b>
<b>Perry Nuclear Power Station</b>	<b>38</b>
<b>Beaver Valley Power Station</b>	<b>40</b>

# REPORT FROM THE CHAIRMAN





**OHIO DEPARTMENT OF PUBLIC SAFETY**

- Administration
- Bureau of Motor Vehicles
- **Emergency Management Agency**
- Emergency Medical Services Division
- Office of Criminal Justice Services
- Ohio Homeland Security
- Ohio Investigative Unit
- Ohio State Highway Patrol

Bob Taft, Governor  
Kenneth L. Morckel, Director

Nancy J. Dragani  
*Executive Director*

Emergency Management Agency  
2855 West Dublin-Granville Road  
Columbus, Ohio 43235-2206  
(614) 889-7150  
[www.ema.ohio.gov](http://www.ema.ohio.gov)

**REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY**

Governor Taft and Members of the Ohio General Assembly:

The member agencies of the Utility Radiological Safety Board (URSB) of Ohio —the Departments of Agriculture, Health and Commerce, the Emergency Management Agency and Environmental Protection Agencies, and the Public Utilities Commission are pleased to present the 2005 annual report of major Board activities.

The URSB was established in July 1989 (ORC Section 4937) to coordinate the nuclear power plant responsibilities of its member agencies. The Board is also charged with the responsibility of enhancing the quality of the State's response to nuclear power safety issues in the areas surrounding our nuclear power plants. This report delineates the actions of the Board toward the accomplishment of these goals.

The Board progressed this year by continuing its efforts to accomplish 12 major initiatives. Among these were the successful completion of emergency response exercises at Perry Nuclear Power Plant and Davis-Besse Nuclear Power Station and an ingestion zone drill at Beaver Valley Power Station. Lesson's learned from the exercises and drills were documented and mitigated by an Exercise After-Action Committee. The Board also monitored the activities of the nuclear utilities that impact Ohio through the NRC's Reactor Oversight Program, the Board's Joint Inspection/Observation Program and through regular briefings provided by the NRC and the three utilities. Elements from the newly released National Response Plan were incorporated into the updated State and county radiological emergency response plans. Also the important issue of providing Potassium Iodide (KI) for citizens living in the emergency planning zones of the utilities was addressed.

The URSB continues to closely monitor those nuclear power issues that could have a direct impact on Ohio's nuclear utilities and the safety of Ohio's citizens. I encourage your review of the many specific activities of the URSB and its member agencies contained in the enclosed overviews.

Sincerely,

NANCY J. DRAGANI  
Chair

**Mission Statement**

*To save lives, reduce injuries and economic loss, to administer Ohio's motor vehicle laws and to preserve the safety and well being of all citizens with the most cost-effective and service-oriented methods available.*

# 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 SFY05 and their respective designees are listed below:

Ohio Department of Agriculture  
Mr. Fred L. Dailey, Director  
Mr. Paul Panico, 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 ACTIONS AND ACTIVITIES**

The Utility Radiological Safety Board (URSB) considered several nuclear power issues at its four SFY05 quarterly meetings (July 12, 2004, October 12, 2004, January 10, 2005, and April 11, 2005). Board actions are taken by parliamentary procedures and in accordance with the Board's Administrative Rules 4937-1-01, 4937-1-02, 4937-1-03 and 4937-1-04 (effective April 1999). The Board's Administrative Rule 4937-1-02 was revised December 1, 2001 to clarify CAC Membership. The URSB may adopt a resolution to convey the Board's direction or its position on a matter of interest. A log of the URSB resolutions immediately follows this section.

### **July 12, 2004 Statutory Meeting Summary**

The Ohio Environmental Protection Agency reported that the Citizens Advisory Council (CAC) membership is declining, primarily because present members are not interested in continuing and no potential new members have applied. Some possible reasons are: public acceptance of nuclear energy, less need for the CAC given the NRC and utility process for public involvement, unintended consequences of rules hampering flexibility, location of the meetings, present CAC membership is weighted toward technical issues, lack of viable issues for input, and a perception that the CAC is pro-nuclear. Four ways of improving membership were proposed: rotating meetings in proximity of FENOC plants, soliciting for additional members, researching CAC topics, and increasing public outreach. Issues brought up for possible discussion at the CAC are transportation of radiological waste, license renewal, possible sites of new reactors, reactor size and placement; safety and security at the plants, public issues such as evacuation and re-location, recovering property and reentry and KI. Discussion followed on efforts to gain membership and possibly changing the CAC rules.

The Ohio Department of Health provided the Board with an update on the June 2004 Midwestern Radioactive Materials Transportation Committee meeting. The key transportation issues were expansion of legislative membership, continued funding of Committee activities and presentations made to national organizations. Office of Civilian Radiological Waste Management activities include a discussion of the strategic plan for the safe transportation of spent nuclear fuel and high-level radioactive waste to Yucca Mountain. The plan was issued in November 2003. Its goal is to develop a safe, secure, and efficient transportation system that includes a collaborative process with interested parties. The Committee established working groups with DOE on key projects that include mode and route selection, emergency preparedness and inspection capabilities, transportation planning, section 180(c) implementation, public information and security. The next meeting of the committee was scheduled for Cincinnati, Ohio on November 9-10, 2004.

Ohio EMA then gave a synopsis to the Board on Ohio House Bills (HB) 490 and 491 (radiological transportation) that were introduced by Representative Skindell on May 11. HB 490 proposes that shippers transporting radiological materials through Ohio be charged at fee. HB 491 creates a High Level Radioactive Waste Committee with 14 members; eight voting members and six non-voting members.

Beaver Valley Power Station (BVPS) representatives reported that both of their units are operating at 100 percent power. Unit 2 was recently reduced in power to 75 percent for scheduled maintenance. Unit one is scheduled for a refueling outage on October 18.

The 2004 BVPS exercise was evaluated by FEMA Region V and III and the NRC. On-site evaluations resulted in one “green” finding for failing to identify the duration of a release. There were no findings for the State of Ohio or Columbiana County. Other States that participated in the exercise were West Virginia and Pennsylvania.

The BVPS representative also discussed unescorted access to First Energy Nuclear Operating Company (FENOC) utility sites. Access guidelines must comply with NRC guidelines and regulations. The badging process must be done by FENOC. FENOC will absorb the cost of internal paperwork. Badge activations are based on usage. If badges have not been used in over a year, the entire access process must be repeated. If an access badge is given for one FENOC utility, it can be used at any of the three utilities (Perry, Davis-Besse and Beaver Valley). The badge will be deactivated after the reason to be on-site is over.

The Davis-Besse Nuclear Power Station (DBNPS) representative reviewed their Operations Improvements Plan. DBNPS re-started in April 2004 after a two year shutdown due to reactor head degradation. An Operations Improvement Plan was developed to ensure continued improvements and sustained performance in nuclear safety and plant operation. It focuses on key improvement initiatives and safety barriers essential to safe restart from the extended plant outage and beyond. The plan addresses organizational effectiveness, operations, maintenance, training, work management, engineering, safety culture, and procedures. The plant has been at 100% power for 106 days since its restart.

Perry Nuclear Power Plant (PNPP) is also at 100% power. The focus of their representatives briefing was the outage caused by the failure of their Emergency Service Water Pump. Management decided to shut the plant down on May 22, 2005 to determine the reason for the pump failure, to replace the pump with one of a new design, and to ensure the other emergency service water pump was not prone to failure for the same reason. The plant returned to service on June 5. Additional significant maintenance completed during the shutdown included restoration of one of the core monitors used during refueling, repair of several valves, and a design change to improve the turbine control system.

### **October 12, 2004 Statutory Meeting Summary**

The OEPA reported for the Citizen’s Action Committee (CAC), as the facilitator of the Committee. Letters were sent to the former CAC members to determine their interest in serving on the Committee. (Five responded affirmatively; one will help with the planning and will consider continuing their involvement.) OEPA is awaiting additional replies. OEPA is also contacting environmental groups, plant managers and county EMA Directors to request assistance in soliciting CAC membership. A meeting will take place next week with the Ohio Public Interest Center to solicit their assistance with continuing the CAC.

ODH reported that the Council of State Governments (CSG) has published a guide of best practices for the shipment of radioactive material. Its intent is to provide a single source of

information in planning radioactive material shipping campaigns. It is hoped that these guidelines will be adopted by non-DOE shippers transporting commercial spent fuel between sites. As reported at the last URSB meeting, different states volunteered to form working groups to work with DOE on key policy issues associated with preparation for the transportation of spent nuclear fuel to the Yucca Mountain facility. Ohio, Missouri, Nebraska, Illinois, and Iowa offered to spearhead development of selection criteria and identification of a proposed suite of routes. The group will finalize its list of route-comparison factors in time for the committee to review the list at the November Midwestern Radioactive Materials Transportation Committee meeting and then begin to generate routes for the working group to review. The location of the next meeting of the Committee has been changed to Columbus, Ohio and will be held on November 9-10, 2004.

The Nuclear Regulatory Commission (NRC) representative reported on the Accident Sequence Precursor Program. This program analyses and reports on events and conditions in all nuclear facilities that have an increased risk of greater than one in a million. The Davis-Besse analysis showed that the probability of an accident leading to core damage was 6 chances in 1,000 in the year before the vessel head damage was discovered due to degradation of the reactor head that was already present. This is about 100 times greater than the risk of core damage from normal plant operations.

The NRC continues to closely monitor Davis-Besse performance. The NRC Oversight Panel anticipates continuing coordination of enhanced inspections and regulatory activity until the plant performance warrants returning to the normal reactor oversight program. The Panel continues to hold public meetings bi-monthly, with the latest being held September 28, 2004 in Oak Harbor, Ohio. There will also be a public meeting in Lake County in mid-November between the NRC and First Energy Nuclear Operating Company to discuss the performance of all three of their plants.

Beaver Valley Power Station (BVPS) representatives stated that both of their units are currently operating at 100% power. On April 4, 2005, their Unit 2 reactor is scheduled to undergo a re-fueling outage. The next Unit 1 outage will include replacement of the reactor vessel head and steam generators. It is currently planned for October 2005.

Perry Nuclear Power Plant (PNPP) declared an Alert on July 20, 2004. At 0329 a plant radiation monitor electronically failed and incorrectly indicated a radioactive gas release to the environment. Other monitors indicated normal readings. The Alert was entered because the Shift Manager is required to make determination of an emergency event within 15 minutes and the chemistry sample necessary to confirm the release would take more than 15 minutes. Plant Emergency Response Organization (ERO) mobilization was successful and the Technical Support Center, Operations Support Center and Public Information Response Team were made operational and providing support to off-site agencies during the event. Chemistry samples processed confirmed that a radioactive gaseous release never occurred and the Alert terminated at 0901. PNPP has been placed on the Repetitive Degraded Mitigating Systems Cornerstone by the NRC in August 2004 due in part to several safety equipment issues. The plant is implementing a formal improvement initiative which is expected to last until 2007.

Davis-Besse Nuclear Power Station representatives discussed their May 2004 siren activation problem. It was found that a clock synchronization problem caused a siren activation failure. The plant is now conducting weekly siren tests, with FEMA's concurrence, and steps have been taken to correct the clock synchronization problem. They also continue to monitor operations because of their earlier reactor vessel head problem. There is also a 5-year commitment to conduct annual independent assessments in the areas of Operations Performance, Corrective Action Program, Engineering Program effectiveness, and Organizational Safety Culture. The review of the Operations Performance will be in August 2005, the Corrective Action Program Implementation will be in September, and the Engineering Program Effectiveness will be in October.

### **January 10, 2005 Statutory Meeting Summary**

OEPA reported for the Citizen's Advisory Committee. The URSB Working Group has suggested items for CAC involvement. They are:

1. License renewal
2. Radiological shipments
3. Training Issues
4. Background Checks for unescorted access
5. WMD Issues
6. Evacuation plan zones
7. Current events affecting Ohio Emergency Management
8. Department of Homeland Security issues
9. The Price Anderson Act

Letters were sent to plant managers and county emergency management directors requesting names of those who might be willing to serve on the CAC. OEPA has also contacted environmental groups but have received no response.

The ODH reported that the Midwestern Radioactive Materials Transportation Committee met in Columbus, Ohio on November 9-10, 2004. Ohio Representative Michael Skindell was introduced as the newest legislative member of the committee. Section 180(c) of the Nuclear Waste Policy Act provides for DOE funding of state activities relative to training for spent fuel shipments to a DOE disposal site. The Midwestern states believe that alternative DOE funding should also be provided for additional activities such as training of hospital employees, tracking of shipments, and inspections. The Work Group will look at both rail and highway routes, focusing initially on shipments from nuclear reactors in the Midwest. The DOE TRAGIS program will be used to analyze the routes. Two staff from Ohio will attend training in Oak Ridge, TN on the use of TRAGIS. The DOE Office of Civilian Radioactive Waste Management (OCRWM) gave an update. An OCRWM working group is planning to develop a concept of operations and a security plan by summer 2006.

Resolution 2005-01 was passed to issue a certificate thanking Dale W. Shipley for his service as Chair of the URSB. Mr. Shipley retired from public service on January 8, 2005.

The NRC updated the Board on the regulatory oversight of Perry and Davis-Besse. Davis-Besse has completed four of the independent assessments required by the NRC Confirmatory Order. These assessments have been monitored by NRC inspectors and the results will be documented in future inspection reports. The NRC continues to hold public meetings in the vicinity of the Davis-Besse plant to discuss plant status and performance issues. The most recent meeting was December 6, 2004 and the next meeting will be in February 2005.

Early in the third quarter of 2004, the Perry plant transitioned to Multiple, Repetitive Degraded cornerstone column of the NRC's Agency Action Matrix. This was based on the Mitigating Systems cornerstone being degraded with multiple White Findings for 5 consecutive quarters. A White Finding indicates performance is outside an expected range of nominal utility performance but related objectives are still being met. This means that while the Perry plant continues to operate safely, the NRC will increase its oversight of the plant due to equipment problems such as repetitive emergency service water pump failures. In response to Perry's entry into the Multiple/Repetitive Degraded Cornerstone Column, a supplemental inspection will be held being this week in accordance with NRC inspection procedures. The inspection will focus on three major areas. Corrective action program implementation and root cause analysis, corrective actions for performance problems during the CY03 outage, and reviews of other areas such as plant procedures & equipment performance, human performance and configuration control.

Beaver Valley reported that both of their units are operating at 100 percent power. They recently completed a refueling outage of their Unit 1 reactor. On April 4, 2005 they will start the refueling outage for Unit 2. The Beaver Valley representative also informed the Board that Mr. Jay Carter, Columbiana County Emergency Management Director, has announced his retirement. Mr. Carter took the floor and thanked the Board for their help over the years.

The Perry Nuclear Power Plant reported that an Unusual Event was declared at their plant on November 4, 2004 due to a chemical spill that included acid which resulted in toxic fumes that restricted access to the affected area. There were also electrical components sprayed with acid that could have been affected, but a review of these components revealed no damage. Another Unusual Event happened on November 12. It was caused by a spurious fire alarm. After receipt of the alarm, it was found that the fire suppression system for the main turbine lube oil sump room had activated which resulted in restricting access due to the oxygen-deficient atmosphere in the area. Corrective actions are being taken. The NRC is conducting a special inspection into the circumstances of both situations.

The Davis-Besse Nuclear Power Station representative stated that there were four independent assessments conducted during last half of 2004. They were Operations Performance which was done in August, Corrective Action Program Implementation in September, the Engineering Program Effectiveness in October and the Organizational Safety Culture, including Safety Conscious Work Environment. Also, the NRC held a special emergency preparedness inspection in October 2004. This inspection was based on the change in siren testing methodology put in place after the May 2004 monthly siren testing failure. It found that, while more frequent testing is not undesirable, Davis-Besse must meet the appropriate criteria for reporting to the NRC. The failure of the siren system in May represents a "greater than green" finding on the Reactor

Oversight Program for the second quarter of 2004. The utilities' mid-cycle refueling outage is scheduled to start in January 2005.

Several new Directors have been appointed and will serve as Board members. Ms. Nancy Dragani was introduced as the new Director of Ohio EMA. The new Director of OEPA is Mr. Joseph P. Koneclik. The new director of the ODC is Mr. Doug White.

### **April 11, 2005 Statutory Meeting Summary**

The report for the Citizens Advisory Council (CAC) was given by the OEPA. Letters have been sent to environmental groups, former CAC members, county EMA Directors, and First Energy Nuclear Operating Company in an attempt to revive citizen interest in the CAC. There have been no responses.

The ODH provided a report on DOE's Transportation External Coordination Work Group (TEC/WG). The Group met in Phoenix, AZ on April 4-5, 2005. In addition to DOE, participants included regional groups, states, tribes, and members of industry. Four topic groups met to continue development of protocols and procedures for the transportation of spent nuclear fuel and high-level radioactive waste to Yucca Mountain, Nevada. A synopsis of each of the topical group reports follow:

The Tribal Topic Group pushed for greater emphasis on environmental impacts. It was recommended that DOE hold a separate meeting with all of the tribes to address issues that are sensitive to them as a whole.

The Rail Topic Group examine the rail planning process, protocols and other guidance against lessons learned, case studies of recent campaigns, and state, tribal and local roles on topics such as inspections, shipment tracking and communications.

The Security Topic Group is addressing roles and responsibilities, information security, operations security, and public information.

Section 180(c) Topical Group is developing recommendations for distribution of funds required by Section 180(c) of the Nuclear Waste Policy Act to states and tribes for activities in support of the transportation of spent nuclear fuel to Yucca Mountain.

The Nuclear Regulatory Commission (NRC) updated the Board on the status of the Energy Policy Act of 2005. The Energy Policy Act currently is in the Energy and Commerce Committee of the House of Representatives in markup status. In February the NRC testified before the Committee on the Act. Over the years, the NRC has repeatedly expressed support for enactment of legislation needed to strengthen the security at NRC regulated facilities. This bill, as approved by the Conference Committee, would provide statutory authority for additional steps to protect the nation's nuclear infrastructure against terrorist attack or criminal activities and prevent malevolent use of radioactive material.

The NRC issued a Regulatory Information Summary 2005-02 on February 14, 2005 that clarifies the process to make changes to licensee emergency plans. This was done to also clarify the meaning of “decrease in effectiveness of emergency plans.”

The First Energy Nuclear Operating Company representatives reported for Beaver Valley Power Station (BVPS). Beaver Valley Unit 2 Refueling Outage began April 4, 2005. The outage included preventative maintenance, inspections and testing. One emergent maintenance item identified during the outage concerned a component of the containment ventilation system and corrective actions for the component were under development. The outage is scheduled for 25 days.

On February 25, 2005, there was a down-power at BVPS due to an electrical ground on the motor for a drain tank pump. In order to make the repair, the utility reduced power to 45 percent. The unit was returned to 100 percent power in about a week.

On December 23, 2004 and January 6, 2005 Perry Nuclear Power Plant (PNPP) had a reoccurrence of a recirculation pump downshift which resulted in an unplanned reactor shutdown. A control circuit board intermittent capacitor failure was identified as the cause. The NRC found 3 violations of breaker maintenance during a follow-up inspection. Perry Plant has been placed into the 4<sup>th</sup> Column of the Reactor Oversight Program (ROP), which includes special and supplemental inspections.

Perry entered their refueling outage on February 22, 2005. The outage began well, but due to the emerging equipment and human performance issues, the plant remains shut down. The most significant modification conducted during the outage was in the digital feedwater control system. Industry experience indicates that this modification should significantly reduce unplanned reactor shutdowns due to feed water problems.

The Davis-Besse Nuclear Power Station (DBNPS) representative reported on the Independent Assessments required by the NRC Confirmatory Action Letter. The 2005 Operations Performance will begin in June; Corrective Action Program Implementation will be begun in July, the Organizational Safety Culture, including the Safety Conscious Work will be done in November, Engineering Program Effectiveness will be done in December. The Engineering Programs inspection was performed October 10-22, 2004. The Assessment Team consisted of three consultants and three senior nuclear industry peers. The scope of the inspection included modifications, calculations, system engineering, and use of corrective action program, management topics and self-assessments. The engineering programs were found to be generally effective and had measurable improvement over past performance.

Davis-Besse’s mid-cycle outage began January 17, 2005 and ran until February 9. Generally, the outage was considered effectively planned, well coordinated and safely executed. The plant equipment and systems support continued safe operations and employee survey on nuclear safety was very positive.

**The following is a summary of the status of the URSB Working Group initiatives at the end of SFY05:**

1. PERRY NUCLEAR POWER PLANT FULL PARTICIPATION EXERCISE - The Perry Nuclear Power Plant (PNPP) full participation exercise was conducted on October 5, 2004. The dry run was held on September 15. The Nuclear Regulatory Commission (NRC) site team and NRC Headquarters participated in this exercise to include communication with the State. The NRC provided a summary of their role and the support available to the State in a meeting on October 4, 2004. The exercise report indicated no findings for the State and one Area Requiring Corrective Action (ARCA). The Lake County ARCA was given because the Lake County EOC Operations Group was not notified when the utility had a radiation release exceeding Protective Action Guides.
2. DAVIS-BESSE NUCLEAR POWER STATION PARTIAL PARTICIPATION EXERCISE - A partial participation exercise for the Davis-Besse plant was conducted on May 17, 2005. The preliminary results of the exercise were one planning issue for the state, one Area Requiring Corrective Action (ARCA) each for Ottawa and Lucas Counties. The Ottawa County ARCA was given because the care center where evacuees were sent was too small to accommodate all the evacuees. The Lucas County ARCA was given because a portal monitor was assembled improperly. The draft exercise report was released on June 17, 2005; the final report is due August 17, 2005.
3. INGESTION DRILL - An ingestion drill is planned for September 27, 2005. The Ingestion Zone Recovery/Reentry Advisory Group (IZRRAG) and the Field Team Center procedures have been reviewed. This drill will involve the IZRRAG, the Field Team Center and the Joint Information Center. The drill scenario development meeting will be held July 26, and a dry run of the September drill will be held on August 23, 2005. This effort is in preparation for the graded ingestion exercise for the BVPS plant to be held June 27-28, 2006.
4. BEAVER VALLEY ALERT-NOTIFICATION SYSTEM (ANS) SELF-ASSESSMENT - This self-assessment is scheduled for August 29 to September 2, 2005. Assessment team members need to be identified.
5. REACTOR OVERSIGHT PROGRAM - This is a 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.
6. AFTER ACTION PLAN ACTIVITIES - The Exercise After-Action Committee continued to correct problems identified during radiological exercises. This fiscal year they reviewed comments after the Perry and Davis-Besse exercises. They also revised the Ingestion Zone Recovery/Reentry Advisory Group (IZRRAG) and Field Team Center (FTC) procedures.

## 7. PLANT OVERSIGHT

PERRY NUCLEAR POWER PLANT (PNPP): PNPP was placed in the fourth column of the NRC Reactor Oversight Program in Aug. 2004. A supplemental inspection concerning mitigating systems, and a special inspection reviewing actions taken for the December 23 and January 6 shutdown began Jan. 10, 2005; the exit briefing for the special inspection was held February 11, 2005. The State of Ohio observed the inspections and briefings, and the post inspection Preliminary Report briefing held by the NRC. Perry has two open White findings in Mitigating Systems, and one recent White finding in Emergency Preparedness. Due to the performance trend at Perry, the NRC intends to increase regulatory interaction. The NRC will issue a Confirmatory Action Letter (CAL) to the utility in the near future. White Finding indicates performance outside an expected range of nominal utility performance but related objectives are still being met.

DAVIS-BESSE NUCLEAR POWER STATION (DBNPS): First Energy Nuclear Operating Company is required to complete four independent assessments as part of the authorization to resume operations at Davis-Besse. These are operation performance, corrective action program, engineering program effectiveness, and organizational safety culture. The URSB Working Group has monitored activities of the Davis-Besse plant including attending NRC 0350 Oversight Panel meetings, which are now complete. The NRC has terminated the Oversight panel and will continue with an Augmented Inspection schedule. On April 21, 2005, the US NRC levied an administrative penalty against Davis-Besse for \$5.45 million as a result of the boric acid and corrosion of the reactor vessel head.

8. TECHNOLOGY - A review is in progress of current equipment and recommendations are being considered for any needed new equipment to support a nuclear power plant emergency. Field Monitoring Team (FMT) equipment continues to be reviewed. Thermo-Electron and Canberra demonstrated gamma and continuous air monitoring equipment, and the Working Group is awaiting decision from the EMA Technical Division. The Working Group continues to assess the need for consistent plant data in the Assessment Room. First Energy Nuclear Operating Company will be asked to meet this need. A lower-range dosimeter is needed in order to allow readable ranges when reduced exposure limits for Field Monitoring Team (FMT) members. Ten electronic dosimeters have been ordered to help meet this need.
9. NATIONAL RESPONSE PLAN (NRP) - The State Radiological Emergency Preparedness (REP) Plan was modified to include organization, notifications and responsibilities issued in the NRP; the plan was approved for distribution by the FEMA-Regional Assistance Committee (RAC). Ohio EMA has identified required NIMS training for state and local agencies, and affected agencies are being advised of the requirements by the EMA Operations Division.
10. STATE DOSE ASSESSMENT - A revision of RASCAL was released in late 2004 and the software is being evaluated by the Working Group. A comparison of RASCAL to the current dose assessment program continues to be performed; a review of the dose assessments between the three plants and the state assessment is in progress now that all three exercises are complete.

11. JIOP CLARIFICATION - An agreement between First Energy Nuclear Operating Company (FENOC) and the State of Ohio is being prepared by FENOC that details the requirements for unescorted site access for the Joint Inspection Observation Program (JIOP). A previous agreement, to be used as a template, was forwarded to FENOC Corporate Emergency Preparedness for review in an attempt to finalize a consistent procedure between the three plants.
  
12. KI (POTASSIUM IODIDE) FOR EMERGENCY WORKERS AND INSTITUTIONALIZED - Currently, KI has a 5-year shelf-life. The FDA issued a blanket 2-year shelf-life extension for all the Anbex Iosat KI, which is the product currently issued to Ohio Emergency Workers (EWs) and Institutionalized. ODH has communicated with Ohio EMA to have them determine the best method to advise Emergency Workers and Institutionalized of the new shelf-life.

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
05-01	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
01-004	Resolution for Utility Radiological Safety Board Appointments Commencing July 1, 2001 to Membership on the URSB Citizen Advisory Council on Nuclear Power Safety	July 9, 2001
01-003	Resolution Issuing Utility Radiological Safety Board Proclamations to Members of the URSB Citizen Advisory Council on Nuclear Safety	July 9, 2001
01-002	Resolution Approving the URSB Citizens Advisory Council's By-Laws as Revised	April 9, 2001
01-001	Resolution Approving Proposed Revision of Joint Committee on Agency Rule Review (JCARR) Rule on CAC Membership	January 8, 2001

# URSB CITIZEN'S ADVISORY COUNCIL



## **CITIZEN'S ADVISORY COUNCIL TO THE URSB**

The Citizen's Advisory Council (CAC) is a standing committee of the Utility Radiological Safety Board as part of its public education and outreach mandate. The members of the CAC are an organized voice that ensures the URSB member agencies are aware of, and responsive to, the needs of the citizens of Ohio. The mission of the CAC is "To advise the Utility Radiological Safety Board of Ohio on measures and factors affecting the safety of existing nuclear power facilities, including, but not limited to plant design, operations, management, emergency planning, public health and environmental impacts, and regulatory standards and policies." This advice is linked to the interests of the CAC members as they represent the citizens of Ohio and the operations of Davis-Besse, Perry, and Beaver Valley nuclear power plants.

CAC membership is to consist of citizens residing near the nuclear power plants, citizens at large, local government officials, academics, representatives from environmental organizations, scientists, nuclear and health professionals, and students.

In State Fiscal Year 2004, the CAC determined that there were no major issues that required its review outside of the NRC part 350 meetings on Davis Besse. The members of CAC determined that in the absence of agenda items to discuss there was no need for meetings.

Requests to the areas and counties surrounding the plants and to known environmental interest organizations in extended areas around the plants solicited no persons interested in CAC membership. The CAC has not met in SFY 2005 and is on hiatus until such time as an issue of general public interest arises.

**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>
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
02-09	10/7/02	DBNPS	Worker Radiation Exposures	EMA/ODH
02-08	9/23/02	DBNPS	System Inspection	ODH
02-07	9/9/02	DBNPS	Program Review	EMA
02-06	9/9/02	DBNPS	Management and Human Performance	EMA
02-05	8/12/02	BVPS	Safety System Design and Performance Capability	EMA
02-04	4/15/02	DBNPS	Special Inspection Regarding Worker Radiation Exposure	EMA/ODH
02-03	3/12/02	DBNPS	Vessel Head Corrosion	EMA
02-02	2/25/02	DBNPS	Circumferential Cracking	EMA
02-01	4/22-25/02	DBNPS	Emergency Preparedness	EMA

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

# FINANCIAL REPORT



## FINANCIAL REPORT

DESCRIPTION	SFY01	SFY02	SFY03	SFY04	SFY05
Appropriations					
Emergency Management	\$754,614	\$840,000	\$876,000	\$1,020,068	\$1,020,068
Health	\$761,900	\$761,900	\$793,000	\$799,267	\$793,000
Environmental Protection	\$189,208	\$219,080	\$243,675	\$232,000	\$232,000
Agriculture	\$62,281	\$68,879	\$71,555	\$66,550	\$66,550
Commerce					
Public Utilities Commission					
<b>Total Appropriation</b>	<b>\$1,768,003</b>	<b>\$1,889,859</b>	<b>\$1,984,230</b>	<b>\$2,117,885</b>	<b>\$2,111,618</b>
Expenditures					
Emergency Management	\$779,799	\$844,131	\$918,234	\$1,020,068	\$1,020,068
Health	\$656,406	\$671,439	\$751,680	\$799,267	\$541,294
Environmental Protection	\$165,725	\$185,552	\$185,854	\$182,752	\$215,137
Agriculture	\$55,758	\$45,000	\$48,000	\$66,550	\$66,550
Commerce					
Public Utilities Commission					
<b>Total Expense (Year-end Balance)</b>	<b>\$1,657,688</b>	<b>\$1,746,122</b>	<b>\$1,903,768</b>	<b>\$2,068,637</b>	<b>\$1,843,049</b>

The figures listed in the above table reflect the entire amount spent by URSB agencies in support of the nuclear power plant preparedness effort. These activities include planning, training and exercises, as well as Board activities.

ORC Section 4937.05 authorizes the nuclear electric utilities to negotiate separately with EPA, ODH, ODA and Ohio EMA amounts to be given as grants for funding of duties and statutes related to nuclear safety on the Utility Radiological Safety Board.

# 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; Plans; and 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 SFY05, there were two federally graded exercises.

A full participation exercise was conducted for the Perry Nuclear Power Plant on October 5, 2004. Lake, Ashtabula and Geauga counties participated by activating their EOC's and conducting field activities. Lake County also participated in radiological monitoring. The State participated in the areas of notification, dose assessment, radiological field monitoring, communications and public information.

A partial participation exercise was conducted for the Davis Besse Nuclear Power Station on May 17, 2005. Ottawa and Lucas counties participated by fully activating their EOC's and conducting field activities. The State participated in the areas of notification, dose assessment, communications, and public information. Only those state agencies that engage in dose assessment participated.

## **Nuclear Power Plant Incidents**

A High Off-Gas Effluent Alarm went off at the Perry Nuclear Power Plant on July 20, 2004. The plant was unable to confirm the cause of the alarm within 15 minutes so an ALERT was declared at 3:44 AM as prescribed by their Emergency Action Level (EAL) procedures. The NRC entered monitoring mode at 4:38 AM in response to this event, and the State of Ohio manned the State Emergency Operations Center (EOC) Assessment Room at 4:45 AM. After the ALERT was declared and notifications were made, plant chemistry technicians were able to obtain samples (an initial and back-up) indicating that no radiation activity greater than background was present. The plant management and operations team, with the NRC present in the control room, evaluated the situation and air sample results. The plant installed and started an emergency air sample/monitor system to resume continuous monitoring of the affected off-gas ventilation system. They also conducted air samples outside the facility to confirm that no activity was released. All air samples showed no activity above background, confirming that no release occurred. At 9:01 AM, with NRC concurrence, the plant discontinued the ALERT and resumed normal operations. The plant remained at 100% power and operated within normal operating parameters during the incident.

The PNPP declared an Unusual Event at 10:45 a.m. on November 4, 2004 due to a chemical spill in the water treatment building restricting access to the building. A gasket for the viewing window in the water treatment tank failed, spilling dilute solution and resin beads into the building. Plant operations were not affected and none of the equipment was safety related. The event was terminated at 3:02 pm on November 4. Ohio EMA made notification calls as per procedures.

The PNPP declared an Unusual Event at 3:00 pm on November 12, 2004 as the result of an inadvertent discharge of carbon dioxide in the turbine lube oil room in the turbine building. Access to the building was restricted. Plant operations were not affected and the plant ventilated the area and took oxygen samples to allow entry back into the area. The event was terminated at 4:36 pm on November 12. Ohio EMA made notification calls as per procedures.

The Enrico Fermi nuclear power plant in Michigan declared an Unusual Event at 9:28 am on December 26 due to the loss of the annunciator system. The event was terminated at 10:34 am on December 26. Portions of Ohio fall within the 50-mile ingestion pathway for Fermi. Courtesy calls were made to FENOC, ODH and EPA.

## **Emergency Planning**

Ohio EMA completed the annual revision of The Ohio Plan for Response to Radiation Emergencies at Commercial Nuclear Power Plants in January 2005. The major emphasis of the planning effort this fiscal year was to bring the plan in compliance with the National Response Plan. The Agricultural Brochure was also distributed to agricultural processors, producers and distributors in the power plants 10-mile planning zones. It is available on the internet at [http://www.ema.ohio.gov/PDFs/Ag\\_Brochure.pdf](http://www.ema.ohio.gov/PDFs/Ag_Brochure.pdf).

---

## 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 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, and performs radiological environmental monitoring outside of commercial nuclear power plant boundaries. Areas of responsibility include evaluating radiological environmental program compliance; evaluating the ability of hospitals to treat contaminated injured people; and serving as the lead state agency on all health physics issues within Ohio.

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

ODH staff participates in nuclear power plant exercises. This past year, ODH staff participated in the following nuclear power plant exercises: the Perry Nuclear Power Plant emergency preparedness dry run on September 15<sup>th</sup>, 2004, and the graded exercise on October 5<sup>th</sup>; the Davis Besse Nuclear Power Station emergency preparedness dry run on April 19<sup>th</sup>, 2005 and the graded-exercise on May 17<sup>th</sup>, 2005. Preparations included revisions to associated emergency response procedures with associated training to personnel. Personnel also participated in the PNPP tabletop training event on August 31<sup>st</sup>, 2004; DBNPS tabletop training event took place on April 5<sup>th</sup>, 2005.

This year ODH personnel attended all three plant offsite systems overview training sessions. Ten bureau personnel staffed positions at the State Emergency Operations Center (EOC); County EOC; nuclear plant Emergency Operations Facility (EOF); and the Joint Public Information Center (JPIC). ODH also fielded a sample screening team consisting of two personnel for each exercise.

Bureau staff evaluated two medical drills: MS-1 at Lake West Hospital in Lake County on October 5<sup>th</sup> 2004, and MS-1 at St. Charles Hospital on May 18, 2005. The purpose of these drills is to demonstrate the capabilities of the emergency response organizations in Lake and Ottawa Counties in handling a contaminated injured person. The exercise is designed to satisfy Lake West and St. Charles Hospital's requirement for an emergency drill and the Federal Emergency Management Agency's Guidance Memorandum MS-1, "Medical Services".

ODH personnel also participate in Ingestion Zone Recovery and Re-entry Action Group (IZRRAG) meetings and are responsible for convening and acting as Chairperson when the IZRRAG is operational. No Ingestion Zone exercises were held this year; however 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 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.

## **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 Davis-Besse and Perry.

ODH Bureau of Radiation Protection (BRP) staff participates with the U.S. NRC in the Joint Inspection Observation Program (JIOP) inspections at all three nuclear power plants. This year the emphases have been in obtaining unescorted access for ODH personnel during JIOP inspections. Meetings are still underway which address this issue.

## **Midwestern Radioactive Material Transportation Committee**

ODH is Ohio's gubernatorial representative to the Midwestern Radioactive Material Transportation Committee. The Committee addresses issues regarding the transportation of all DOE radioactive material, including spent nuclear fuel, transuranic waste, other low-level radioactive waste and highway route controlled quantities (HRCQ) of radioactive material. ODH works with the DOE to develop appropriate policies. The Ohio High-Level Radioactive Waste Routing Task Force will make recommendations to the PUCO on the selection of routes in Ohio. The Ohio State University contracted to conduct a study of potential routes in support of this effort.

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

This year 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. ODH issued a letter to that effect to Ohio Emergency Management Agency who coordinated the effort to re-label existing stocks.

Future KI issues will involve KI tabs distributed to the members of the public which are due to expire in May of 2007.

## **Radiological Environmental Monitoring**

ODH staff conducts 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.

---

## **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 SFY05. 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.

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 SFY05.

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 two radiological excursions for public water plants from natural radioactivity in ground water in Ohio for SFY05.

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, 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.

---

## **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 Ingestion Zone Recovery and Re-entry Advisory Group meetings. Although no Ingestion Zone Exercise was held this year, the group has been reviewing and revising procedures and advisories in preparation for the graded exercise scheduled for June of 2006. In addition, ODA participated in the URSB After Action Working Group meetings. 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.

### **The Ohio Agriculture Brochure**

OEMA in cooperation with ODA and other State agencies revised and re-issued the Ohio Agriculture brochure for Ohio farmers, agricultural workers, food producers, distributors and processors. It provides information on what to do if there is a radiological incident at a nuclear power plant and what steps need to be taken to protect food, milk, soil, water and other agricultural commodities. The brochure is distributed to those individuals and businesses within a ten mile radius of each nuclear power plant.

### **Other Related Miscellaneous Items**

In October, 2004, ODA hosted Field Sampling Team training for ODA, ODNR, OEPA and ODH field sampling teams. OEMA arranged and conducted the training. All of ODA field sampling

teams have been Incident Command System (ICS) trained for both ICS 100 and ICS 200 levels. And ODA has purchased twenty-five self alarming dosimeters for use by its field sampling teams.

During SFY05, ODA attended monthly URSB Working Group meetings, quarterly URSB Board meetings, After-Action Working Group meetings and NEPAC meetings.

---

## **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 SFY05, 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 SFY05, 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.

---

## **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 20 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.

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.

---

# NUCLEAR POWER PLANT ACTIVITIES

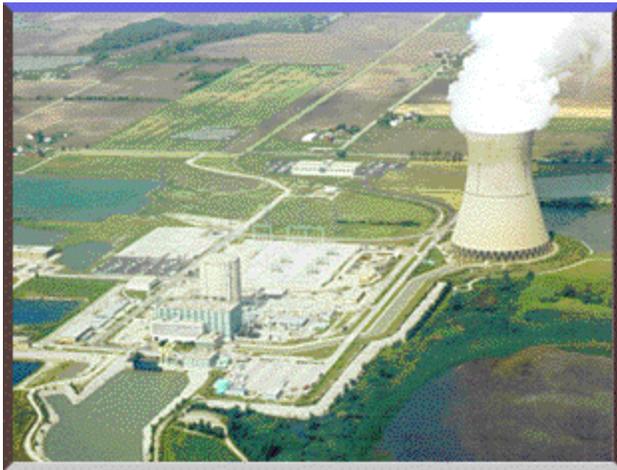


## NUCLEAR POWER PLANT ACTIVITIES

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 SFY05.

---

### DAVIS-BESSE NUCLEAR POWER STATION



#### **Davis-Besse continues safe, reliable operation**

First Energy Nuclear Operating Company's Davis-Besse Nuclear Power Station, near Oak Harbor in Ottawa County, has continued to run safely and reliably since its March 2004 restart.

Despite the fact that Davis-Besse was still in the extended outage (related to the reactor head corrosion) in March of 2004, plant personnel turned in a strong safety performance for the year—only four OSHA recordable accidents and the site's collective radiation exposure rate for employees was 6.4 Rem, about 45 percent lower than projected.

In terms of reliability, Davis-Besse's capability factor for 2004 was 74 percent, due to the extended outage and a four-day outage in August needed for maintenance work on the plant's Control Rod Drive System. (Capability factor is the ratio of electricity generated compared with the amount of electricity that would have been generated operating 100 percent power for the same period.) The capability factor since the March restart, however, was 98 percent, above the national average.

The plant continues through 2005 to log solid performances in industrial and radiological safety, as well as reliability. For example, Davis-Besse personnel have worked more than 3.5 million hours without a lost-time accident, the plant's radiation exposure rate for a two-year rolling average is 55.8 Rem, an industry top quartile performance. Davis-Besse's capability factor through July is 88 percent, due largely to a 21-day maintenance and inspection outage that began January 17. Discounting that outage, the capability factor would be close to 100 percent.

Other Davis-Besse highlights:

- The 21-day mid-cycle inspection outage met all its objectives—inspections of the reactor head, steam generators and other equipment showed the plant is in good material condition; there were no OSHA recordable or lost-time accidents; no nuclear safety incidents; the collective employee radiation exposure rate was below the target; the plant returned to service on time and the and under budget.
- The Nuclear Regulatory Commission announced in May 2005 it was moving Davis-Besse from the escalated regulatory status of the 0350 Inspection Procedure (invoked in 2002 as a result of the corrosion on the reactor head) to its standard Reactor Oversight Process, effective July 1, 2005.
- Davis-Besse's next refueling will begin March 6, 2006, and is scheduled to last a little more than a month.

---

## 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.

During the period of July 1, 2004 to June 30, 2005, the Perry Plant Emergency Response Organization conducted three integrated team drills and a full-scale Evacuated Exercise. The plant Emergency Response Organization (ERO) performance for these drills was satisfactory. Lake, Ashtabula and Geauga counties as well as the State of Ohio participated in the drills and exercises. The drills tested key communication and public information functions, Protective Action Recommendation (PAR) protocols and decision-making procedures.

An unannounced, off-hours drill was conducted on May 19, 2005, to test the response of ERO members during evening and early morning hours. The drill did not meet response expectations and resulted in corrective actions. Additional drills were conducted following training sessions and enhancement of notification methods confirmed personnel and facilities were successfully manned within their respective response times.

There were three emergencies classified during this time. An Alert was declared on July 20, 2004, when an effluent monitor indicated off-scale high; all other radiation monitors remained stable. It was ultimately determined that the monitor had failed and no release had occurred. The NRC determined that the failure to complete a Computer-Aided Dose Assessment Program (CADAP) run using the appropriate source term within 15 minutes of declaring the Alert was an apparent violation of NRC requirements. This resulted in a "White" finding.

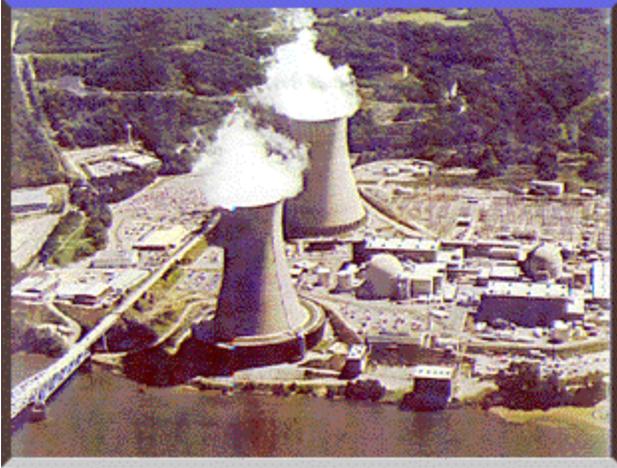
An Unusual Event was declared on November 4, 2004, due to a spray of process fluid in the water treatment building that resulted in the building being evacuated. Another Unusual Event was declared on November 12, 2004, when a fire alarm was received for the main turbine room. There was no indication of a fire; no apparent cause was found for the spurious initiation.

Perry's 10<sup>th</sup> Refueling Outage began on February 22, 2005 and was to last 29 days. The outage began well but emergent equipment issues and human performance concerns impacted the schedule. The plant did not return to service until May 6, 2005.

Due to plant problems, a NRC Inspection Procedure 95003 was conducted of the PNPP. The Emergency Response Unit had a few performance deficiencies, a few non-cited violations and green findings.

The PNPP has maintained a "Green" acceptable performance for the Emergency Preparedness Cornerstone under the NRC Reactor Oversight Process, which monitors three areas of Emergency Preparedness: 1) Drill and exercise performance, 2) Drill participation, and 3) ANS (siren) reliability.

## 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.

### **NRC Performance Indicators**

The Beaver Valley Plant has maintained “Green” acceptable performance under the NRC Reactor Oversight Process, which monitors three performance indicators in emergency preparedness. Performance indicators include drill and exercise performance, drill participation and ANS reliability. The “Green” performance area response band indicates objectives under the emergency preparedness cornerstone were fully met.

### **Outages**

#### Unit 1

1R16 Refueling Outage      **October 16, 2004 – November 14, 2004**

#### Unit 2

2R11 Refueling Outage      **April 4 – April 28, 2005**

### **Alert and Notification System**

The ANS continues to meet the requirements of FEMA REP 10.

## **2004 Exercises**

Mini Drills    **March 24**  
                  **March 31**  
                  **April 7**

Dry Run Exercise            **April 20**  
FEMA Evaluated Exercise   **May 11**

MS-1 Medical Exercise      **November 18, 2004**

## **2005 Exercises**

### **Mini Drills**

**February 17**  
**March 24**  
**September 22 (Scheduled)**  
**October 20 (Scheduled)**

## **Events**

There were no declared Events.