

# Utility Radiological Safety Board of Ohio

## Annual Report

**FENOC**

FirstEnergy Nuclear Operating Company  
Davis-Besse NPS

**FENOC**

FirstEnergy Nuclear Operating Company  
Perry NPP

**FENOC**

FirstEnergy Nuclear Operating Company  
Beaver Valley PS



SFY 2004

July 1, 2003 - June 30, 2004



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# REPORT FROM THE CHAIRMAN





- Administration
- Bureau of Motor Vehicles
- Emergency Management Agency
- Emergency Medical Services
- Investigative Unit
- Ohio State Highway Patrol

**Dale W. Shipley**  
*Executive Director*

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## REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY

Dear Governor Taft and Members of the General Assembly:

The Utility Radiological Safety Board (URSB) is pleased to present its Fiscal Year 2004 annual report. This report addresses the actions taken by the Board in FY04 as it continues to monitor the activities of the nuclear power plants impacting Ohio and its residents.

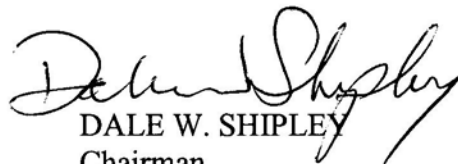
As the repercussions of the 2001 terrorist attack continue the effect on emergency preparedness activities, the URSB has responded by ensuring that Ohio's nuclear utilities continue to enhance their planning and response capabilities to meet the new challenges affecting their continued safety. A Joint DHS/NRC Homeland Security Workshop was held this fiscal year to continue this ongoing effort.

There were two major exercises conducted this fiscal year; a partial participation exercise at the Beaver Valley Power Station and an ingestion drill in the Beaver Valley Power Station planning area. The Ohio Plan for Response to Radiation Emergency at Commercial Nuclear Power Plants was reviewed, revised and distributed. Several associated Standard Operating Procedures and public information documents were also updated.

The final version of the Potassium Iodide (KI) policy was signed this year and revisions were made to plans and procedures to reflect the necessary changes. The Joint Inspection and Observation Program continues to provide for the involvement of URSB members in NRC inspections and the role of the Citizen's Advisory Council was reviewed. In addition, URSB member agencies actively participated in the U.S./Canadian Power Outage Task Force that was formed to address the August 16, 2003 catastrophic power outage.

I encourage your review of the specific activities of the URSB and its member agencies contained in the enclosed overviews. The Board continues to investigate, examine and study issues that impact Ohio's nuclear power plants and the citizens that live near them.

Sincerely,

  
DALE W. SHIPLEY  
Chairman

### 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) 889-7153.

The Board members for SFY04 and their respective designees are listed below:

Ohio Department of Agriculture  
Mr. Fred L. Dailey, Director  
Mr. Paul Panico, Designee

Ohio Emergency Management Agency  
Mr. Dale Shipley, Executive Director  
Mr. Mark Patchen, Designee

Ohio Department of Commerce  
Lt. Governor Jennette Bradley, Director  
Mr. Dean Jagger, Designee

Ohio Environmental Protection Agency  
Mr. Christopher Jones, Director  
Ms. Cindy Hafner, Designee

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

Public Utilities Commission of Ohio  
Dr. Alan Schriber, Chairman  
Mr. Dan Fisher, Designee

# URSB ACTIONS AND ACTIVITIES





## **URSB ACTIONS AND ACTIVITIES**

The Utility Radiological Safety Board (URSB) considered several nuclear power issues at its four SFY04 quarterly meetings (July 7, 2003, October 6, 2003, January 12, 2004, and April 12, 2004). 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 7, 2003 Statutory Meeting Summary**

There was an Exercise at Davis-Besse Nuclear Power Station on June 10<sup>th</sup>, 2003. The state received no findings. There was one issue with Ottawa County concerning the decontamination at Magruder Hospital. It was corrected before the final report was released. A practice ingestion exercise was scheduled for November of 2003.

The Citizen's Advisory Council (CAC) is reviewing its membership and participation. The Council has requested suggestions from the Board on how to increase their efficiency and effectiveness.

The Board Passed Resolution 2003-02 to recognize the services of Jon Harachis. Resolution 2003-03 was also passed in order to appoint a new member (Hobert Jones) and to reappoint a returning member (Neil Hoffsetter). Mr Hoffsetter was appointed as an Elected Official in the Perry Emergency Planning Zone. Resolution 2003-04 was adopted as well, stating that Robert Carlson was to be removed as an active member of the CAC due to inactivity per the Ohio Administrative Code.

The Ohio Department of Health briefed the Board on the June 17<sup>th</sup> Midwestern Radioactive Waste Committee's meeting in Lincoln, Nebraska. DOE still plans to ship two casks of spent fuel through Ohio from the West Valley Spent Demonstration Project. Security, planning and preparation procedures were discussed and reviewed. DOE is receiving pressure to maintain consistency in training for each state, regardless of the shipping campaign. The States are looking for a four month window to conduct training in advance of any shipment. The DOE Office of Civilian Radioactive Waste Management, which oversees the Yucca Mountain Project, announced its renewed participation in supporting activities of the cooperative agreement groups, e.g., the Midwestern Committee.

The Joint Inspection Observation Program (JIOP) report was presented at this meeting. There were two NRC inspections in which the State of Ohio accompanied the NRC. The NRC has released their inspection reports thereby permitting release of the State of Ohio JIOP reports. They were Perry Emergency Preparedness Program (JIOP 03-01); and Beaver Valley Strategic Performance (JIOP 03-02).

The NRC is closely monitoring Davis-Besse. They are continuing to hold public meetings through the Davis-Besse restart. The NRC has added a third resident inspector to compliment

the normal two residents at Davis-Besse. The June 10<sup>th</sup> exercise was discussed and the NRC findings were evaluated. There were no performance indicator discrepancies, even though the scenario was challenging, and was a thorough test of the Emergency Response Organization.

The Perry Nuclear Power Plant power outage duration and costs were greater than anticipated. However, the extended outage allowed for maintenance and upgrading to the plant operations. The June 30<sup>th</sup> Unusual Event, at Perry, was declared at 3:41 pm, due to 3.4 magnitude earthquake out on Lake Erie. The Technical Support Center performed a “walk-down” of the plant and the event was declared terminated at 10:33 pm.

### **October 6, 2003 Statutory Meeting Summary**

The Chairman of the Citizen’s Advisory Council (CAC) reported on behalf of the Council. Over the last couple of months, the CAC has been working with the URSB Working Group to reexamine its method of operation. It was recommended that, since the group has technical expertise, they should be used to give a technical opinion on issues in addition to their primary mission as a clearing house for public concern. The CAC will continue to work with the Working Group on this issue. Additionally, The CAC will participate in the upcoming Perry Alert and Notification audit.

The Ohio Department of Health reported on the actions for the Midwestern Committee. The Committee will meet again on December 9-11, in Chicago, Illinois. In addition to addressing security issues associated with shipments, the Committee will hear from DOE on lessons learned regarding recent shipments and an update from the Office of Civilian Radioactive Waste Management (OCRWM) on Yucca Mountain activities. Other topics discussed will be training of emergency response personnel, TRANSCOM, and transporting the Big Rock Point reactor vessel. The meeting will also include a one-day workshop, to focus on the transport of radioactive waste by rail.

A draft of the URSB Annual Report was submitted to the Board for review and approval. Further work is needed. Members of the Board will provide input to the report within two (2) weeks and a final draft will be done by the first of November. The final report will be provided to the Board Members at the January 2004 Statutory Meeting.

Ohio EMA provided a briefing on Ohio’s input to the U.S./Canadian Power Outage Task Force that was formed on August 16, 2003. The purpose of the Task Force is to seek solutions to help prevent future catastrophic power outages like the one that occurred on August 14, 2003. It is jointly chaired by the U.S. Secretary of Energy and the Canadian Minister of Natural Resources. There are 3 working groups: Electrical Systems, Nuclear Power and Security. The nuclear working group efforts consists of two (2) phases: 1) assist with determining the reason for the outage and 2) evaluate the nuclear power plant safety issues, including design issues, operating procedures and regulatory requirements that should be modified. Ohio participants in the Task Force are Alan Schriber, Chairman of the PUCO and John Overly, Director of Ohio Homeland Security and Dr. Ivan Maldonado, University of Cincinnati. Ms. O’Claire, NRC State Liaison

Officer, will assist Dr. Maldonado on the Nuclear Working Group. So far it has been determined that all nine of the U.S. nuclear power plants that experienced loss of off-site power shut down as they were designed. Of the 103 U.S. nuclear power plants, 70 detected grid disturbance and accommodated the fluctuation and stayed online.

The NRC briefed the Board on regulatory action in regards to Davis-Besse. Since the last URSB meeting, progress continued toward restart. The next monthly Davis-Besse Oversight Panel meeting is scheduled for October 7, 2003 at Camp Perry. The following meeting will be November 4 at Oak Harbor High School. There will be a public meeting scheduled prior to restart to discuss Davis-Besse's readiness for restart. That meeting has not been scheduled, but will be in the vicinity of the plant. So far, the NRC has conducted 60 public meetings, most in Ottawa County. There are several activities remaining before restart is considered.

Beaver Valley Power Station reported that their Refueling Outage is going well and that they will return to 100% power soon. On August 14, Beaver Valley experienced transient power fluctuations. Both reactors' power dropped. The operators were able to recover and bring the reactors back to 100% power. Notifications were made as per procedures.

On August 14, Perry suffered a loss of off-site power at 4:10 PM due to the major power outage that affected the United States and Canada. The shift manager declared an Unusual Event. The Unusual Event was terminated at 7:52 PM on August 15<sup>th</sup>. They also reported on a security tabletop exercise that was conducted at the Perry Joint Public Information Center (JPIC). One issue identified was how to share information before JPIC activation. The drill was well attended and proved to be very informative. Perry will start their Alert Notification System (ANS) Self-Assessment on October 7, 2003. Representatives from Perry, Beaver Valley and Davis-Besse Power Plants and Ohio EMA and the CAC will be on the assessment team.

Davis-Besse Nuclear Power Station reported that their Normal Operating Temperature/Normal Operating Pressure (NOT/NOP) test has been completed and analysis is underway. This test was to confirm that the bottom nozzles of the reactor head are not leaking. No leakage was found with either camera or visual inspections. The test objectives were met. Davis-Besse also lost offsite power on August 14<sup>th</sup> due to the major power outage. An Unusual Event was declared, but conditions returned to normal after offsite power was restored.

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

Ohio EMA reported on the November 2003 Ingestion Zone Reentry and Recovery Advisory Group (IZRRAG)/Field Team Center drill. The IZRRAG demonstration was conducted at the State EOC and the FTC demonstration was at the Jefferson County Emergency Operations Center in Steubenville, Ohio. The reason for this demonstration was to test recently revised procedures for the two facilities. West Virginia also observed the drill due to their use of Ohio's FTC and lab during emergencies at the Beaver Valley Power Station. A federally graded exercise is scheduled for 2006 the IZRRAG and FTC will participate

The Public Utilities Commission reported on the transportation of the reactor vessel head from Three Mile Island (TMI). There were no problems with the radiation survey performed on the

vessel head, but there was a problem with the credentials of one of the drivers. The shipping company quickly provided a new driver with the proper credentials and the shipment passed through Ohio without incident.

The Ohio Environmental Protection Agency reported for the Citizens Advisory Council (CAC). At the last Board meeting, the Working Group was tasked to find alternatives for the continuation of the CAC. Currently the group is technically oriented and none of the people currently on the CAC represent the public in the way the Board originally intended. As a result, interest and attendance has been declining. Possible topics of discussion were suggested, such as moving of spent fuel, interim storage, dry cask storage.

The Midwestern Radioactive Material Transport Committee met on December 9 – 11, 2003 in Chicago, Illinois. This was a joint meeting with the Council of State Governments (CSG) Northeast High-Level Radioactive Waste Task force, the group representing that region on the same issues. The meeting focused on rail transportation with an all-day workshop addressing rail issues relative to the shipment of spent fuel.

State and regional group representatives from all four regions of the nation met with Robert G. Card, Under Secretary for DOE on November 18, 2003. Discussions were held at that time to determine the role of the states in working with DOE on development of the national transportation system for the movement of spent nuclear fuel and high-level radioactive waste to Yucca Mountain. A letter was sent to Under Secretary Card on December 4<sup>th</sup> highlighting key issues that must continue to be addressed. There is a need for balance between development of the repository and transportation in order to ensure that both activities are ready at the same time. The letter recognizes that DOE has developed a number of draft policies and documents for transportation that are being considered: however, the states want to work with DOE through the regional groups to address their concerns.

DOE has begun efforts to standardize the Department's approach to handling radioactive material shipments when the Homeland Security System threat levels change. A standardized approach will ensure that there is consistency between all DOE programs. The Midwestern Committee noted that when threat levels are elevated to Orange or Red, the DOE should halt all outbound shipments. It is also recommended that states have access to the threat assessment information and be involved in the decision-making process on what to do with the shipment.

Mr. Roland Lickus was present to provide information on NRC activities. On November 23, FirstEnergy submitted a restart report documenting the work that has been done to correct the problems that lead to the corrosion and other safety issues. They also requested that the NRC schedule a public meeting to discuss restart. As a result, the NRC scheduled 2 key inspections: The Restart Readiness Inspection and the Management and Human Performance Inspection.

On December 9<sup>th</sup>, at the request of the Governor, four NRC representatives met with him and other state officials to discuss the status of the oversight activities at Davis-Besse as it continues its activities toward restart. A number of issues were discussed. At this time 24 of the 31 items required for restart have been closed. The Governor was assured that the NRC will not allow Davis-Besse to restart until they are convinced that it can be restarted and operated safely.

Perry Nuclear Power Plant staff provided an overview of the October 3, 2003 Security Threat Tabletop exercise. Homeland Security Secretary Ridge has stated that he wants to make a statement within an hour of a major security incident. The exercise revealed that such a statement would be difficult to plan for within an hour. Mr. Lickus stated that there would need to be a flow of information from the NRC to Homeland Security.

Davis-Besse reported that there have been two recent equipment challenges at their facility: the Auxiliary Feedwater Pump Operability and Containment Spray Pump Motor bearing. An immediate investigation team and root-cause team have been established. The preliminary investigation revealed that communication and tracking of technical specification action statements need to improve. Davis-Besse representatives also related some accomplishments since the last URSB meeting. The plant continued its focus on improvements in the safety culture; heat up to Mode 3; established Cycle 14 of the Operational Improvement Plan; completed installation and testing of newly modified High Pressure Injection (HPI) pumps and inspection demonstrated Reactor Coolant System (RCS) is leak-tight. The next update meeting will be January 21, 2004. The plant hopes to schedule the Restart Readiness Inspection and the public meeting to formally request restart and then resume operations.

#### **April 12, 2003 Statutory Meeting Summary**

A new draft policy for KI has been sent to the Director of the Ohio Department of Health (ODH) for consideration. ODH does not intend to order the 65 mg. Potassium Iodide (KI) tablets recently offered by the NRC. There is an issue with the difference in shelf life between the new 65 mg. tablets and the 130 mg. tablets currently in use.

The final report from the U.S./Canada Joint Power Outage Task Force was released March 31, 2004. The report made it clear that the Blackout could have been prevented. Both the United States and Canadian governments should take steps to ensure the electrical supply has reliability standards with substantial penalties for noncompliance.

The Ohio Environmental Protection Agency (OEPA) reported that the Citizen's Advisory Council (CAC) is looking for guidance from the Board concerning their future mission. Ohio EMA will check into the background and history of the CAC and a meeting will be scheduled to discuss the matter.

The Nuclear Regulatory Commission (NRC) provided a report on Davis-Besse Oversight and NRC Lessons Learned. On March 8, they announced that their restrictions on Davis-Besse restart had been removed. A letter was sent to FirstEnergy announcing the closure of the 31 items on the NRC restart checklist. A decision will be coordinated with other federal agencies and a confirmatory order, which includes a mandatory annual independent assessment, will be issued. The five (5) year assessment will cover operations, engineering, corrective actions, safety culture and inspections of key reactor coolant pressure boundary components during the upcoming mid-cycle outage. The letter also stated that the NRC will continue an enhanced regulatory presence and oversight activities after restart. The plant achieved full power on April 4, 2004.

On February 11, 2004, the NRC staff completed an end of cycle performance assessment on Perry Nuclear Power Plant. Overall, the plant operated in a manner that preserved public health and safety. They met all cornerstone objectives with a moderate degradation in safety performance. During the most recent quarter, the Perry was in the degraded cornerstone of the NRC action matrix based on two findings in mitigating systems and 1 in the emergency preparedness (EP) cornerstone. There are supplement inspections scheduled in May 2004 for those cornerstones.

Director Morckel, Director of the Ohio Department Public Safety, John Overly, Deputy Director of Homeland Security of Ohio and Dale Shipley, Mark Patchen, Carol O’Claire and Robert Glenn received a tour of Perry. A tour of Davis-Besse is being planned.

**The following is a summary of the status of the URSB Working Group initiatives at the end of SFY04:**

1. BEAVER VALLEY POWER STATION PARTIAL EXERCISE (EMA) - The Beaver Valley Power Station (BVPS) exercise was conducted on May 11, 2004 with dry run on April 20. This was a partial participation exercise for the State of Ohio and a full participation for Columbiana County. State activity demonstrations included assessment, executive decisions/direction and control, communications, public information. The critique for the graded exercise was conducted on May 14 at the Columbiana County Emergency Operation Center (EOC). Results indicated no findings for the State and Columbiana County. FEMA final report was released on June 24, 2004.
2. PERRY NUCLEAR POWER PLANT FULL PARTICIPATION EXERCISE – A full participation exercise is scheduled for the Perry Nuclear Power Plant (PNPP) on October 5, 2004 with dry run on September 15. The Nuclear Regulatory Commission (NRC) site team and NRC Headquarters will participate in this exercise to include communication with the State. The NRC will also provide a State outreach meeting, on September 14, 2004, to discuss their role and the support available to the State. The extent-of-play agreements were submitted to FEMA for review. Upcoming training includes Perry systems on August 11, and assessment and field monitoring training on August 31.
3. 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.
4. AFTER ACTION PLAN ACTIVITIES – The Exercise After-Action Committee continued to correct problems identified during radiological exercises. This fiscal year they focused on the Ingestion Zone Recovery/Reentry Advisory Group (IZRRAG) and Field Team Center

(FTC) procedures. Comments resulting from the May Beaver Valley exercise were also addressed.

5. DAVIS-BESSE UPDATE - Davis-Besse has been on the grid at or near 100 percent power since April 4, 2004. The URSB Working Group continues to monitor activities of the Davis-Besse plant including attending NRC Oversight Panel meetings, and observing continuing inspections.
6. 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 equipment continues to be reviewed. GPS units will be demonstrated during the Perry full-scale exercise in October 2004. Two vendor (Thermo Electron and Canberra) demonstrations of automatic gross gamma and continuous air monitoring are scheduled for later this year. The working group will be assessing the needs for consistent plant data in the Assessment Room, and then First Energy will attempt to meet this need.
7. STATE DOSE ASSESSMENT - A revised version of RASCAL is expected to be released in late 2004 and an evaluation of the revision will be conducted by the Working Group. A comparison of RASCAL to the current dose assessment program was performed during the BVPS dry-run and exercise in May 2004. The results from RASCAL were somewhat consistent with the current assessment program, a report was developed for review, and the comparison will be repeated during the PNPP exercise. RASCAL training will be available on August 24-25, 2004 in Chicago.
8. JIOP CLARIFICATION - An agreement between FENOC and the State of Ohio is being drafted by FENOC that details the requirements for unescorted site access for the Joint Inspection Observation Program (JIOP). FENOC provided a draft outline for unescorted access guidance document for the State JIOP inspectors, and the working group members reviewed the requirements and provided feedback and requests for the MOU/Agreement to First Energy in March 2004.
9. RADIOACTIVE WASTE TRANSPORTATION ISSUES - The URSB Working Group will continue to track these issues as they relate to nuclear power plant transport of spent fuel and radioactive waste.
10. KI FOR THE GENERAL PUBLIC - ODH has finalized a revised policy concerning administration of KI, to include new criteria for administration of KI to members of the public. The revision to the policy generally states that ODH will recommend the public, emergency workers, and institutionalized take KI at the same time, and for the same sub-areas that are recommended to evacuate or shelter. The FDA issued a revised shelf-life requirement for 130 mg KI tablets in June 2004, changing it from five (5) to seven (7) years.
11. ASME – The Board will continue to monitor to ensure that Ohio based nuclear power plants fulfill their responsibilities to maintain a program which will demonstrate conformance to the requirements of the ASME Section XI, Rules for In-service Inspection of Nuclear Power

Plant Components. 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 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.

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) 889-7153.



## URSB RESOLUTIONS LOG

Resolution Number	Description of Action	Date Signed
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.

The CAC studies issues ranging from the radiation protection programs for nuclear facilities, public health and safety, and environmental protection. They report their findings as recommendations to the URSB for further action. The URSB gives careful consideration to the work of the CAC and considers it to be an important resource.

CAC membership consists 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. Except for the student members, who serve one-year terms, the members of the CAC serve staggered two-year terms. The staggered terms serve to maintain balance and continuity on the council. Terms of membership start and end with the State Fiscal year, beginning in July of each year.

In State Fiscal Year 2004, the CAC determined that there were no major issues that required its review outside of the other public processes going on for the Davis Besse NRC part 350 meetings involving that plants extended maintenance outage. The members of Citizen Advisory Council included:

Mr. Gary Bolender, Emergency Response in a Planning Zone  
Mr. Peter Cybulskis, Independent Research Facility  
Ms. Amy Drummer, Citizen from the Davis Besse EPZ  
Mr. Howard Elson, Institute of Higher Education  
Ms. Gretchen Farnung, Citizen At Large  
The Honorable Karl Koebel, Public Official from Davis-Besse  
Mr. Jon Harachis, Student Member  
The Honorable Neil C. Hofstetter- Public Official from Perry  
Mr. Bill Thomas, Non Power Nuclear Industry

A review of the CAC operations is underway to better serve the Mission of the CAC to reflect the concerns of the general public and to encourage public involvement in the group.

# 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 SFY03, 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) 889-7153 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>
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
01-05	10/29-11/2/01	BVPS	NRC Radiation Protection	ODH
01-04	8/13-16/01	PNPP	Emergency Preparedness Program	EMA
01-03	8/13-17/01	BVPS	Emergency Preparedness Program	EMA
01-02	2/5-8/01	PNPP	Emergency Preparedness Program.	EMA
01-01	1/29/01-2/2/01	DBNPS	NRC Radiation Protection Inspection	ODH

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

# FINANCIAL REPORT



## FINANCIAL REPORT

DESCRIPTION	SFY00	SFY01	SFY02	SFY03	SFY04
Appropriations					
Emergency Management	\$751,974	\$754,614	\$840,000	\$876,000	\$1,020,068
Agriculture	\$50,084	\$62,281	\$68,879	\$71,555	\$66,550
Environmental Protection	\$188,075	\$189,208	\$219,080	\$243,675	\$232,000
Health	\$740,801	\$761,900	\$761,900	\$793,000	\$799,267
Commerce					
Public Utilities Commission					
<b>Total Appropriation</b>	<b>\$1,730,934</b>	<b>\$1,768,003</b>	<b>\$1,889,859</b>	<b>\$1,984,230</b>	<b>\$2,117,885</b>
Expenditures					
Emergency Management	\$629,610	\$779,799	\$844,131	\$918,234	\$1,020,068
Agriculture	\$48,850	\$55,758	\$45,000	\$48,000	\$66,550
Environmental Protection	\$155,076	\$165,725	\$185,552	\$185,854	\$182,752
Health	\$708,488	\$656,406	\$671,439	\$751,680	\$799,267
Commerce					
Public Utilities Commission					
<b>Total Expense (Year-end Balance)</b>	<b>\$1,542,024</b>	<b>\$1,657,688</b>	<b>\$1,746,122</b>	<b>\$1,903,768</b>	<b>\$2,068,637</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.

The Radiological Branch is part of the Technical Support Division of Ohio EMA. With the assistance of the other sections of EMA, it is responsible for radiological incident response, accident assessment, instrument maintenance, training, planning, exercises and drills, and facilitation of the URSB. In addition, the Radiological Branch works with the Department of Energy (DOE) and other URSB agencies to monitor activities relating to high-level radiation shipments across Ohio.

### **Emergency Planning**

Ohio EMA completed the annual revision of The Ohio Plan for Response to Radiation Emergencies at Commercial Nuclear Power Plants in January 2004. The major emphasis of the planning effort this fiscal year was to add a Recovery Section for the Ingestion Zone Reentry and Recovery Advisory Group to employ in the intermediate and later phases of an emergency, to add clarification of when to request Federal emergency and disaster declarations, and to add FEMA-REP-22 guidance for use of CDV instruments for personnel and equipment monitoring. The FEMA-REP-22 guidance will now allow State and local responders to use counts per minute in lieu of radiation dose rates, and will enable monitoring equipment to be fitted with larger surface area probes, resulting in faster personnel and equipment frisking for contamination.

The Agricultural Brochure was also reviewed by stake holders, revised and distributed this fiscal year. The brochure is distributed annually to agricultural processors, producers and distributors in the power plants 10-mile planning zones. It is also available on the internet at [http://www.ema.ohio.gov/PDFs/Ag\\_Brochure.pdf](http://www.ema.ohio.gov/PDFs/Ag_Brochure.pdf).

### **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 SFY04, there was one federally graded exercise. The exercise was conducted for the Beaver Valley Power Station (BVPS) on May 11, 2004. The States of Ohio, Pennsylvania and West Virginia participated. The exercise was considered a partial participation for Ohio this year; meaning that Field Monitoring Teams were not activated and the State Emergency Operating Center (EOC) was not fully activated. Ohio had representatives in the plant Emergency Operations Facility, the Joint Public Information Center, and the Columbiana County EOC. Columbiana County conducted Traffic and Access Control, Backup Route Alerting, Emergency Worker Decontamination, and Public

School System demonstrations. The Federal Emergency Management Agency evaluation team found no Areas Requiring Corrective Action during the exercise.

Ohio EMA also facilitated an Ingestion Drill this fiscal year. The drill involved the activation of the Ingestion Zone Recovery Reentry Advisory Group and the Field Team Center. The purpose of the drill was to test newly revised procedures. Additional Ingestion Drills will be held next fiscal year to help prepare for the major ingestion exercise scheduled for the fall of 2006.

Numerous un-graded mini-drills and communications tests were also conducted with the three FENOC utilities throughout the year to maintain and test the adequacy of procedures.

### **Joint DHS & NRC Homeland Security Workshop**

The Ohio EMA, Radiological Branch Chief attended the Joint DHS & NRC Homeland Security Workshop in Washington, D.C. The purpose of the Workshop was to provide information to state representatives (NRC liaison officers, homeland security advisors, and radiological health directors) on the goals/missions of the Nuclear Regulatory Commission and the Department of Homeland Security as they relate to security events involving nuclear/radioactive materials. Keynote speakers included NRC Chairman Dr. Nils Diaz and DHS Under Secretary for Science and Technology Dr. Charles McQueary. Much of the discussion centered around the draft National Response Plan whose development was mandated by the President to “integrate Federal Government domestic prevention, preparedness, response, and recovery plans into one all-disciplined, all hazard plan”. It is anticipated that the NRP, currently in draft, will encompass all federal plans to include the present Federal Response Plan (FRP) and the Federal Radiological Emergency Response Plan (FRERP). In addition, a scenario involving a security event at a fictitious nuclear power plant allowed for interaction between NRC, DHS and state representatives in open discussions regarding possible state responses and state concerns. Many of the states had already conducted similar tabletops. Ohio conducted a security tabletop in January of 2002. One of the major state concerns was interoperability—what should be in place to allow effective communications between federal, state, local and affected nuclear facility in a security event. Also what mutual aid agreements exist between states to allow for sharing of equipment and manpower? It is expected that this Workshop will be offered on annual basis.

### **Joint U.S./Canadian Power Outage Task Force**

On Aug. 14, 2003, the northeastern U.S. and Canada experienced a wide spread electrical power outage affecting an estimated 50 million people. Both the Perry Nuclear Power Plant and the Davis-Besse Nuclear Power Station declared Unusual Events due to loss of offsite power. A Joint U.S./Canadian Power Outage Task Force was established to identify the causes of the power outage to seek solutions to help prevent future outages. The U.S. members of the Task Force were Tom Ridge, Secretary of Homeland Security; Pat Wood, Chairman of the Federal Energy Regulatory Commission; and Nils Diaz, Chairman of the Nuclear Regulatory Commission. The Canadian members are Deputy Prime Minister John Manley; Kenneth Vollman, Chairman of the National Energy Board; and Linda Kenn, President and CEO of the Canadian Nuclear Safety Commission. There were three working groups under the Task Force: Electric System Working Group, led by experts at the Energy Department and the Federal Energy Regulatory Commission along with Natural Resources Canada, focusing on transmission

infrastructure and its workings and management; Nuclear Power Working Group, managed by the Nuclear Regulatory Commission and the Canadian Nuclear Safety Commission, looking at how nuclear power plants in the affected area performed during the outage; and the Security Working Group, managed by the Department of Homeland Security and the Canadian government's Privy Council Office, looking at all the security aspects of the incident, including cyber security. The Ohio participants to the Nuclear Working Group include Dr. Ivan Maldonado, Associate Professor, University of Cincinnati, and Carol O'Claire, Ohio State Liaison Officer to the Nuclear Regulatory Commission. The Task Force issued its Final Report to the President of the United States and the Prime Minister of Canada on March 31, 2004. The Final Report includes both the causes of the blackout and recommendations to prevent future blackouts. The Report makes clear that the August blackout could have been prevented and that immediate actions must be taken in both the United States and Canada to ensure that the electric system is more reliable. First and foremost, compliance with reliability rules must be made mandatory with substantial penalties for non-compliance. In addition, a number of technical and organizational improvements are urgently needed to assure efficient and well-coordinated operations across the North American power grid. Failure to implement the Report's recommendations could threaten the reliability of the electricity supply that is critical to the economic, energy, and national security of both Canada and the United States. The Report is available at <https://reports.energy.gov/BlackoutFinal-Web.pdf>.

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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 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 Beaver Valley Power Station emergency preparedness dry run on April 20th and the graded-exercise on May 11th, 2004. Preparations included revisions to associated emergency response procedures and delivering training to personnel. Personnel also participated in the BVPS tabletop training event as well as the BVPS systems overview training session during March 2004. Nine 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).

Bureau staff evaluated a medical drill (MS-1) at Salem Hospital on November 6, 2003. The purpose of this drill is to demonstrate the capabilities of the emergency response organizations in Columbiana County in handling a contaminated, injured person. The exercise is designed to

satisfy Salem Hospital's requirement for an emergency drill and the Federal Emergency Management Agency's Guidance Memorandum MS-1, "Medical Services".

ODH participated in a non-graded ingestion tabletop exercise on November 6<sup>th</sup>, 2003 involving the IZZRAG, Field Team Center, and agency sampling teams. The After-Action Group has incorporated lessons learned from this exercise in preparation of the 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 IZZRAG 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 conditions for plant restart. This past year, ODH Bureau of Radiation Protection (BRP) staff participated with the U.S. NRC in the Joint Inspection Observation Program (JIOP) inspections at the Davis-Besse Nuclear Power Station (DBNPS). As part of the NRC readiness restart review, the inspection's objective is to observe the NRC follow-up inspection of the Management and Human Performance Assessment and Corrective Actions". ODH utilizes the Joint Inspection Observation Program (JIOP) and stated protocols to participate in this process. The investigation included a review of the survey method utilized by the licensee, independent verification of the licensee's results, assessment of the data analysis, and analysis of corrective actions used by the licensee. We issued our inspection report, JIOP Report 2004-02 on June 11<sup>th</sup>.

This JIOP inspection team determined through this follow-up inspection, that the licensee's evaluation of survey data and corrective actions were appropriate. Based on the results of this follow-up and the previous three-phase inspection of Management and Human Performance, the inspection team concluded that the licensee's efforts in root cause analysis and corrective actions in these areas were appropriate and that the corrective action titled *Adequacy of Organizational Effectiveness and Human Performance, Effectiveness of Corrective Actions*, of the "Davis-Besse Restart Checklist" be closed. The inspection team presented their findings to the licensee's senior management staff on February 12, 2004. The licensee's management representatives acknowledged the inspection findings. The NRC inspection team also presented their findings at a public meeting at Camp Perry in Port Clinton, Ohio on the evening of February 12.

### **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**

The Ohio Department of Health issued revision 1 of its KI policy titled, *“Distribution and Use of Potassium Iodide for the 10-mile emergency Planning Zone Population”*.. The policy was approved by the Director of Health and signed with an effective date of April 9, 2004. The revision to the previous policy involved changing to a recommendation that all populations (i.e., public, institutionalized, emergency workers) be recommended to administer their KI at the same time and for the same areas that are recommended to evacuate, or to shelter, during the declaration of a general emergency.

Specifically, the policy recommends that *“the administration of KI to the general public, emergency workers, and institutionalized individuals within the 10-mile emergency planning zone (EPZ) in accordance with U.S. Food and Drug Administration (FDA) approved-dosage guidance provided by the manufacturer during the declaration of a nuclear power plant general emergency. This recommendation for KI administration is for all categories of individuals (i.e., general public, emergency worker and institutionalized) to take their potassium iodide (KI) tablets at the same time and for the same sub-area(s) that are recommended to evacuate or shelter”*.

During 2002-03, the Department coordinated the state and local efforts to distribute KI to the public within the three 10-mile emergency planning zones in Ohio. In October, 2002, the department repackaged approximately 580,000 KI tablets into baggies containing two individual tablets, with each tablet individually sealed in an aluminum packet. These contents, along with the manufacturer’s insert, were placed into baggies containing pre-printed, FDA-approved labels and shipped to local health districts in Columbiana, Lake, and Ottawa Counties. These counties in turn, distributed KI to, or for, Ashtabula, Geauga, and East Liverpool Health Departments, as well as for their own residents. The department assisted the local health departments by providing KI literature, advisories, and informational posters for public education purposes. Between January 20<sup>th</sup> and April 30<sup>th</sup>, the local health districts within the 10-mile emergency planning zones, distributed over 40% of the KI received, to the general public, schools, and employers. Not all eligible residents elected to pick-up their allotted KI tablets. The remaining KI will either be stored at local health districts for new residents, and/or stored at evacuation/care centers for transients and others, who do not have KI.

## **Radiological Environmental Monitoring**

ODH staff conducts a variety of radiological environmental monitoring activities in the vicinity of the Davis-Besse Nuclear Power Station (DBNPS), the Perry Nuclear Power Plant (PNPP), and the 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.

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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 SFY04. 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 SFY04.

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 SFY04.

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.

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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.

When an incident occurs, ODA assesses and deals with problems impacting agriculture and its related industries. ODA, in coordination with the Ingestion Zone Recovery and Reentry Advisory Group 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.

### **The Ohio Plan**

ODA reviewed the proposed requirements in the August 19, 2003 Federal Register regarding Radiological Emergency Preparedness: Planning and Preparing for a Fast-Breaking Event. The Ohio Plan was revised regarding the sheltering of animal advisory. In a Fast-Breaking Event, the sheltering of animals advisory would not be issued at site-area-emergency.

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

ODA participated in a non-graded Ingestion Zone Tabletop exercise on November 6, 2003. The IZRRAG, Field Team Center and agency sampling teams were involved in the exercise. ODA provided the West Virginia Department of Agriculture a copy of its sampling procedures to assist them with their ingestion zone exercise held in May 2004. A representative from ODA traveled to Wheeling, West Virginia on May 13, 2004 to observe the Field Team Center demonstration in conjunction with the Beaver Valley graded exercise.

### **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 mailed to those individuals and businesses within a ten mile radius of each nuclear power plant.



During SFY04, ODA attended monthly URSB Working Group Meetings, quarterly URSB Board Meetings and After-Action Working Group 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 SFY04, 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 SFY04, 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 also participates in the Ohio High Level Radioactive Waste Routing Task Force on the routing of radiological shipments from, within, and outside of Ohio.

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 14 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.

#### Related Utility Issues

The PUCO and the Ohio EMA were directly involved in the US/Canadian investigation of the August 14, 2003 power outage that occurred in eastern parts of both countries. PUCO Chairman Alan Schriber was appointed to the Electric Energy Systems Working Group while Carol O'Claire, OEMA and State Liaison Officer to the Nuclear Regulatory Commission was involved with the task force Nuclear Power Working Group. The U.S.-Canada Power System Outage Task Force released its final report on April 5, 2004

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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 SFY04.

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### DAVIS-BESSE NUCLEAR POWER STATION



#### **Davis-Besse prepares for spring 2004 restart**

FirstEnergy Corp.'s Davis-Besse Nuclear Power Station, near Oak Harbor in Ottawa County, continues working through late 2003 to return the plant to service, with a restart target of spring 2004. Nuclear Regulatory Commission (NRC) approval for restart is required before the plant can resume operations.

The plant has been off line since February 16, 2002, when it was shut down for refueling, maintenance work and inspections, including a NRC-mandated inspection of the Control Rod Drive Mechanism (CRDM) nozzles on the reactor head. Subsequently, that inspection revealed corrosion on the reactor head near one of the 69 CDRM nozzles, which had leaked boric acid through a crack.

FirstEnergy Nuclear Operating Company (FENOC), the FirstEnergy subsidiary which operates the plant, replaced the damaged reactor head in the fall of 2002, put into place a new management team, restructured the organization to bolster future operation of the plant, and made numerous improvements to operating programs, systems and equipment.

Significant restart activities completed in 2003: a normal operating pressure and temperature test—which required heating the reactor to Mode 3 temperature—to assure that reactor cooling

system, including the reactor head the instrumentation nozzles on the bottom of the reactor, were not leaking; calibrating and testing the new Flus leak monitoring system on the bottom of the reactor vessel; and completing and testing the newly modified High Pressure Injection Pumps. Other restart work, completed or under way, included improvements to the plant safety culture, creating an Operational Improvement Plan to assure ongoing improvement in plant operations, completing an NRC inspection of the site's safety conscious work environment and conducting a self-assessment of operations readiness.

Prior to restarting the plant, FENOC will conduct a full pressure test of the plant's reactor coolant system, complete any remaining restart-related work and schedule a Restart Readiness Inspection with the NRC. Based on activities in the restart schedule, the plant is expected to return to service in spring 2004.

Other significant 2003 activities include successful completion of the June 10<sup>th</sup> Emergency Response Organization evaluated exercise and the activities related to the August 14, 2003, blackout. State, county and plant emergency organizations successfully met all 30 exercise objectives, as well as the 10 performance indicators related to the emergency notification process. Regarding the blackout: offsite power ceased shortly after 4 p.m. and backup power was provided by the plant's emergency diesel generators. As per plant procedures, an Unusual Event was declared, all appropriate local, state and federal notifications made and the plant emergency plan initiated. The Technical Support Center, Operations Support Center, Emergency Operations Facility and Joint Public Information Center were staffed. After grid stability was restored on August 15, offsite power resumed and the Unusual Event status was rescinded.

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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 FirstEnergy Corporation and operated by the FirstEnergy 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, 2003 to June 30, 2004 the Perry Plant Emergency Planning Organization conducted three integrated team drills and the plant Emergency Response Organization (ERO) performance for these drills was satisfactory. County and State of Ohio participation were included in the plant drill testing tested key communication and public information functions, Protective Action Recommendation (PAR) protocols and decision-making procedures.

An unannounced off-hours drill was conducted to test the response of ERO members during evening and early morning hours on March 18, 2004. The drill did not meet response expectations and resulted in corrective actions. Additional drills were conducted following training sessions and enhancement of notification methods and confirmed personnel and facilities were successfully manned within their respective response times.

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.

In January, 2004, the Nuclear Regulatory Commission (NRC) determined that a late classification of an Alert that occurred on April 24, 2003, during the last refueling outage, was a performance deficiency of low to moderate significance resulting in a White finding. There was no radiological impact to the general public as a result of this event as indicated by area surveys and plant radiation monitors. The Perry Plant staff conducted a thorough review of the organizational response leading to the late classification was conducted and effective corrective actions were implemented. A NRC inspection reviewing this event and the Perry Plant corrective actions was conducted closing this issue in May 2004.

Two actual emergency plan events occurred during the reporting period, both from external plant events. The emergency responses for both events were effective with good coordination and communication between plant, State, and county response organizations.

- Perry Plant declared a Notice of Unusual Event as a result of a 3.4 magnitude (Richter scale) earthquake on June 30, 2004. The Emergency Plan was effectively implemented, all onsite actions, offsite notifications were appropriately made and there was no affect on plant structures, systems and components from the event.
- Perry Plant declared an Alert due to the loss of offsite power event that affected the Northeastern United States and parts of Canada on August 14, 2004. The emergency

response organization responded well to the event and the plant was maintained in a safe shutdown and stable condition until it was safely restarted and returned to the electrical grid. There was one equipment failure that occurred during the loss of power that was determined by the NRC to be a finding of low to moderate significance, White finding.

Perry Plant was in the Regulatory Response band of the Nuclear Regulatory Commission Reactor Oversight Process at the end of June 2004.

Other noteworthy items completed in the last 12 months are as follows

- Critical evaluation of the siren system around the Perry Plant - the assessment team included members from a member of the Citizens Advisory Committee in addition to members from FENOC. Results of the assessment were favorable on the maintenance and availability of the siren system for public notification.
- A security tabletop exercise pertaining to public information and media response was conducted involving many federal as well as State of Ohio, county, and plant personnel. The exercise was productive towards a better understanding of the responsibilities, protocols, and information needs of the various participants.

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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 FirstEnergy Corporation and operated by its subsidiary FirstEnergy 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 objectives under the emergency preparedness cornerstone were fully met.

## **Outages**

### Unit 1

1R16 Refueling Outage      Scheduled to Start      October 16, 2004

### Unit 2

2R10 Refueling Outage      September 13, 2003 – October 11, 2003

## **Alert and Notification System**

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

## **2003 Exercises**

Mini Drills      July 16  
                         August 13

MS-1 FEMA Evaluated Medical Exercise      November 6

## **2004 Exercises**

Mini Drills      March 31  
                         April 7  
                         April 14  
                         May 25

Dry Run Exercise                      April 20  
FEMA Evaluated Exercise      May 11

MS-1 Medical Exercise              Scheduled      November 18, 2004

## **Events**

There were no declared Events.

The NRC issued a White Finding on Emergency Response Organization (ERO) Augmentation. This finding was “Self Identified” by BVPS during an Unannounced Activation Drill. After the drill, immediate corrective actions were put in place by BVPS. The Finding was closed by the NRC in June 2004