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Report from the Chair
Utility Radiological Safety Board of Ohio

REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY

Governor Mike DeWine and Members of the Ohio General Assembly:

The member agencies of the Utility Radiological Safety Board (URSB) of Ohio - Departments of Agriculture, Commerce, Emergency Management, Environmental Protection, Health and the Public Utilities Commission are pleased to present the 2021 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 details the actions of the Board toward the accomplishment of these goals.

During SFY2021, the URSB held four statutory meetings. The URSB board meetings were held virtually utilizing Microsoft Teams on: July 13, 2020, October 13, 2020, January 11, 2021 and April 12, 2021.

There were no classifiable events in SFY2021 for nuclear power plants affecting Ohio.

There were three Federal Emergency Management Agency evaluated exercises in SFY2021 at Davis Besse Nuclear Power Station, Beaver Valley Power Station and Perry Nuclear Power Plant. These exercises were held virtually due to COVID-19. The exercises were a success with no findings or recommendations for improvement.

The URSB continues to monitor nuclear power issues that could have a direct effect 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,

SIMA S. MERICK
Chair

SSM/pr
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 of 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 Nuclear Regulatory Commission (NRC) 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.

Board meetings are held quarterly at the offices of the Ohio Emergency Management Agency at 2855 West Dublin-Granville Road, Columbus, Ohio, or, when allowed by authorization of the General Assembly, can be held virtually utilizing Microsoft Teams, with public access via the URSB website. The meetings are open to the public.

To find out more information concerning the URSB and its members, please refer to the URSB homepage at http://www.ursb.ohio.gov/index.stm or contact the URSB Secretary at (614) 889-7150. The Board members for SFY21 and their respective designees are listed below:

<table>
<thead>
<tr>
<th>Ohio Department of Agriculture</th>
<th>Ohio Emergency Management Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Dorothy Pelanda, Director</td>
<td>Ms. Sima Merick, Director</td>
</tr>
<tr>
<td>Ms. Terri Gerhardt, Designee</td>
<td>Mr. Chris Salz, Designee</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ohio Department of Commerce</th>
<th>Ohio Department of Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Sheryl Maxfield, Director</td>
<td>Dr. Bruce Vanderhoff, Director</td>
</tr>
<tr>
<td>Mr. John Sharier, Designee</td>
<td>Ms. Rebecca Fugitt, Designee</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Ohio Environmental Protection Agency</th>
<th>Public Utilities Commission of Ohio</th>
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</thead>
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<tr>
<td>Ms. Laurie A. Stevenson, Director</td>
<td>Ms. Jenifer French, Chair</td>
</tr>
<tr>
<td>Mr. James Sferra, Designee</td>
<td>Mr. John Williams, Designee</td>
</tr>
<tr>
<td>Mr. Bradley Mitchell, Designee</td>
<td>Mr. Alan Martin, Designee</td>
</tr>
</tbody>
</table>
URSB Actions and Activities
SUMMARY OF URSB ACTIONS AND ACTIVITIES

Statutory Meetings:

During SFY2021, the URSB held four statutory meetings. The URSB board meetings were held virtually utilizing Microsoft Teams on: July 13, 2020, October 13, 2020, January 11, 2021 and April 12, 2021.

At each meeting member agencies report on planning, training, drills, and exercises which have been conducted in support of Radiological Emergency Preparedness (REP) for response to incidents at a nuclear power facility that could impact Ohio.

The Nuclear Regulatory Commission (NRC) state liaison attends and will make a report on any inspections conducted by NRC resident inspectors and by inspection teams through the NRC nuclear power oversite program. The liaison also reports any findings and any additional inspections required because of those findings.

The Federal Emergency Management Agency (FEMA) Region V representative attends and reports on any FEMA REP Program updates.

A liaison of the nuclear utility also reports on any activities and incidents that occurred at the power plants affecting Ohio, and any future inspection and maintenance evolutions which the URSB may wish to observe have questions on. Additional details from these meetings are available by contacting the URSB Secretary at 614-889-7150, or on the URSB website at http://www.ursb.ohio.gov/index.stm.

Recommendations Received by the Board:

There were no recommendations received for action by the board in state fiscal year 2021.

Board Resolutions:

There were no resolutions made by the board in state fiscal year 2021.

Board Requested Testimony:

The board did not request any specific testimony by any individual, or the utility in state fiscal year 2021.

Questions from the Public:

There were no questions from the public in state fiscal year 2021.
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 (NRC) 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 Perry Nuclear Power Plant (PNPP) and Davis-Besse Nuclear Power Station (DBNPS). Under “adjacent state observation” status, a second agreement with NRC Region I allow JIOP participants to observe NRC inspections at the Beaver Valley Power Station (BVPS). A guideline 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 JIOP. The URSB JIOP Goals and Objectives are delineated below.

In State Fiscal Year 2021 the URSB JIOP participants partially observed five NRC inspections virtually using Microsoft TEAMS as most inspections were completed offsite due to COVID-19.

**URSB JIOP Goals and Objectives**

1. To observe NRC inspections at Ohio nuclear power facilities and BVPS.
   - 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 inspections, in accordance with NRC protocol.
   - To communicate with the NRC resident, regional, and national inspectors.

2. 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.

3. To inform the URSB about which inspections were observed during each quarter.
JIOP INSPECTIONS FY2021 (July 1, 2020 to June 30, 2021)

<table>
<thead>
<tr>
<th>JIOP Number</th>
<th>Date(s)</th>
<th>Inspection</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021-PNPP-001*</td>
<td>July 20-24, 2020</td>
<td>Radioactive Gaseous &amp; Liquid Effluent</td>
<td>ODH</td>
</tr>
<tr>
<td>2021-DBNPS-001*</td>
<td>September 21-25, 2020</td>
<td>Radiation Monitoring Instrumentation; Performance Indicator (PI) Verifications</td>
<td>ODH</td>
</tr>
<tr>
<td>2021-PNPP-002*</td>
<td>October 26–30, 2020</td>
<td>Radiation Monitoring Instrumentation</td>
<td>ODH</td>
</tr>
<tr>
<td>2021-DBNPS-002*</td>
<td>February 22–24, 2021</td>
<td>Occupational Dose Assessment</td>
<td>ODH</td>
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<tr>
<td>2021-DBNPS-003*</td>
<td>April 26–30, 2021</td>
<td>Occupational ALARA Planning &amp; Controls; In-plant Airborne Radioactivity Control &amp; Mitigation</td>
<td>ODH</td>
</tr>
</tbody>
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*No observation at the site. ODH participated in entrance and/or exit meeting via Microsoft Teams along with a few other virtual meetings.
Financial Report
## FINANCIAL REPORT

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SFY17</th>
<th>SFY18</th>
<th>SFY19</th>
<th>SFY20</th>
<th>SFY21</th>
</tr>
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<tr>
<td><strong>Appropriations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Management</td>
<td>$1,235,241</td>
<td>$1,157,386</td>
<td>$1,188,475</td>
<td>$1,206,973</td>
<td>$1,234,341</td>
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<tr>
<td>Health</td>
<td>$1,127,707</td>
<td>$1,144,546</td>
<td>$1,157,262</td>
<td>$1,270,842</td>
<td>$1,288,894</td>
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<tr>
<td>Environmental Protection</td>
<td>$306,164</td>
<td>$332,403</td>
<td>$352,430</td>
<td>$276,500</td>
<td>$206,023</td>
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<td>Agriculture</td>
<td>$125,176</td>
<td>$91,400</td>
<td>$96,038</td>
<td>$92,610</td>
<td>$101,130</td>
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<tr>
<td>Commerce*</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Public Utilities Commission*</td>
<td></td>
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<tr>
<td><strong>Total Appropriation</strong></td>
<td>$2,794,288</td>
<td>$2,725,735</td>
<td>$2,794,205</td>
<td>$2,846,925</td>
<td>$2,830,388</td>
</tr>
</tbody>
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| Expenditures                 |           |           |           |           |           |
| Emergency Management         | $1,045,058 | $990,309  | $1,154,278 | $1,043,074 | $942,868  |
| Health                       | $1,127,707 | $1,144,546 | $1,157,262 | $1,208,328 | $1,172,764 |
| Environmental Protection     | $252,056  | $125,229  | $276,984  | $174,774  | $127,981  |
| Agriculture                  | $109,731  | $91,310   | $95,124   | $92,610   | $86,857   |
| Commerce*                    |           |           |           |           |           |
| Public Utilities Commission* |           |           |           |           |           |
| **Total Expense** (Year-end Balance) | $2,534,552 | $2,351,394 | $2,598,036 | $2,518,786 | $2,330,470 |

♦ Denotes agency does not receive funding from Energy Harbor
Agency Overviews
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. ODA also promotes 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, crops, and processed foods 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 provides emergency response information.

**Nuclear Power Plant Emergency Planning**

ODA attends quarterly Nuclear Emergency Planning Advisory Committee (NEPAC) meetings and After Action Group meetings.

ODA continues to participate in monthly Nuclear Power Plant Emergency Preparedness (NPPEP) meetings to review and revise the Ohio Plan for “Response to Radiation Emergencies at Commercial Nuclear Power Plants,” procedures, and advisories, in preparation for nuclear power plant training, exercises, or related emergencies.

**Other Related Items**

The Ohio Agriculture Brochure was reviewed and updated and distributed by ODA in the spring of 2021. The brochure is distributed to Ohio food producers, processors, and distributors located within a ten-mile radius of a nuclear power plant, and the brochure is made available to counties within a fifty-mile radius of those plants. The brochure is also available electronically on the ODA website and via links on URSB member agency sites.

ODA also participated on applicable committees in support of the URSB.
OHIO DEPARTMENT OF COMMERCE
Division of Industrial Compliance

The Ohio Department of Commerce focuses on assisting businesses in their efforts to comply with Ohio laws and regulations and helping to ensure the safety of Ohioans. The Division of Industrial Compliance is one of eight operating divisions that make up the Ohio Department of Commerce. The Division has a wide variety of programs and responsibilities within its purview, including:

• The Division reviews building plans for the construction and renovation of commercial and public building projects; conducts inspections of plumbing, electrical, and structural systems;

• The Division inspects mechanical systems including steam engines and boilers, hydronics, escalators, elevators, and the lifts inside structures for wind turbines;

• The Division provides testing and inspection of bedding, upholstered furniture and stuffed toys; annual inspection of ski lifts and roller-skating rinks;

• The Division investigates complaints related to the Ohio minimum wage, prevailing wage, and the employment of minors in Ohio;

• The Division regulates the installation of manufactured homes, the licensing and inspection of manufactured home parks, and the certification of manufactured home installers and inspectors.

The Division of Industrial Compliance also works closely with:

• The Board of Building Standards, which sets the building code for the State of Ohio and provides training and certification for local building authorities across Ohio;

• The Board of Building Appeals, which adjudicates variance requests that pertain to the Ohio Building Code;

• The Ohio Construction Industry Licensing Board, which provides testing and licensure of certain trades within the commercial construction industry.

URSB Involvement

The Ohio Department of Commerce is a member of the Ohio Utility Radiological Safety Board (URSB). The Department is committed to helping ensure the safety of the citizens of and visitors to Ohio by monitoring the Davis-Besse Nuclear Power Station (DBNPS) and Perry Nuclear Power Plants' (PNPP) quality assurance programs.
Agency-Specific Activities

The Ohio Revised Code requires an owner of a nuclear power plant to maintain the plant and to safely and expeditiously return the plant to service following plant outages. As part of this requirement, owners of nuclear power plants must develop and implement a quality assurance program that includes regular examinations, testing, and inspections.

The program must also:

(a) Provide access in the design and arrangement of the plant to conduct the examinations and tests;

(b) Develop plans and schedules for the examinations, tests, and inspections, including detailed examination and testing procedures for filing with the enforcement and regulatory authorities having jurisdiction at the plant site;

(c) Conduct the examination and tests, including system leakage tests, hydrostatic pressure tests, and in-service tests of pumps and valves;

(d) Create records of the results of the examinations and tests, including any corrective actions required and any remedial steps taken.

The Ohio Department of Commerce is charged with verifying that nuclear power plant owners are complying with all the requirements of the Ohio Revised Code and Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code. The Department’s Authorized Nuclear In-service Inspector (ANII) is responsible for doing such verification, and during SFY21, the Authorized Nuclear In-service Inspector:

• Witnessed pressure tests

• Reviewed nondestructive examination procedures and repair programs

• Verified that the visual examinations and tests on pumps and valves had been completed and the results recorded

Future Activities

The Ohio Department of Commerce’s staff will continue to monitor DBNPS and PNPP and provide technical assistance to the URSB when questions arise regarding the requirements for boilers and related mechanical systems under Ohio law or the ASME Boiler and Pressure Vessel Code.
The Ohio Department of Health (ODH) is designated the Ohio radiation control agency in accordance with Ohio Revised Code 3748.02. The Ohio Department of Health, Bureau of Environmental Health and Radiation Protection (ODH-BEHRP) provides support to the Utility Radiological Safety Board (URSB) through its statutory functions in matters of radiation protection. ODH-BEHRP serves as the lead state agency on all health physics and agreement state issues within Ohio, monitors the radiological performance of the nuclear power plants, provides emergency response personnel and dose assessment team leadership in the event of a radiological emergency, observes the evaluation of hospitals abilities to treat contaminated injured people, ensures radiological environmental monitoring outside of commercial nuclear power plant boundaries, and provides input for working groups.

Nuclear Power Plant Emergency Response Exercises

ODH-BEHRP staff regularly participates in nuclear power plant exercises, however due to COVID-19 the exercises followed a virtual format using the Microsoft Teams platform. ODH participated in the September 2020 Perry Nuclear Power Plant (PNPP) evaluated exercise, the November 2020 Beaver Valley Power Station (BVPS) evaluated exercise, and the May 2021 Davis-Besse Nuclear Power Station (DBNPS) evaluated exercise. The Field Monitoring Team and Sample Screening evaluated activities were postponed and will be conducted next state fiscal year, 2022, when returning to in-person activities.

ODH-BEHRP provided key personnel to the executive room channel, dose assessment room channel, emergency support function (ESF) 8 and 10 in the ops floor channel, along with liaison positions with the utility operations facility, and the utility joint information channel. In preparation, staff attended several virtual training sessions including new platform Teams training, plant-specific systems training, and dose assessment training, along with annual web-based training. ODH-BEHRP rotates staff members through different positions to broaden staff skills and allow flexibility in assigning response personnel. ODH-Office of Communications helped staff the State Joint Information Center (SJIC) public inquiry lines. ODH-Office of Health Preparedness helped staff the ESF-8 desk.

Medical Service (MS-1) exercises are routinely observed by ODH-BEHRP staff at designated hospitals inside the 10-mile Emergency Planning Zone. In state fiscal year 2021 (SFY2021), ODH-BEHRP staff observed one MS-1 exercise. The evaluated MS-1 drill was for DBNPS on November 17, 2020. The hospital and transport were determined to be adequately prepared to treat an injured individual contaminated with radioactive material.
Emergency Preparedness Activities

ODH BEHRP staff attended all the monthly Nuclear Power Plant Emergency Planning (NPPEP) meetings virtually. ODH-BEHCP staff attended quarterly Nuclear Emergency Planning Advisory Committee (NEPAC) meetings. These meetings provide an opportunity to collaborate with URSB member agencies, as well as utility and local government representatives for planning purposes, resolution of common issues, and identification and tracking of corrective actions documented during exercise activities.

ODH-BEHCP regularly joins with other state agencies and Energy Harbor in development and training activities. SFY 2021 included virtual attendance at the Beaver Valley Power Station (BVPS) Offsite Agency Training Session (OATS) in August 2020.

Joint Inspection Observation Program (JIOP)

ODH-BEHCP staff participates with the United States Nuclear Regulatory Commission (NRC) in the Joint Inspection Observation Program (JIOP) inspections. Five JIOPs covering five topic areas were completed by NRC inspectors with limited ODH virtual participation in SFY 2021. The details of the topics can be found in the URSB Joint Inspection Observation Program section of this annual report. Findings from these inspections may be found on the NRC website.

Dose Assessment Activities

A second set of emergency response procedures were written and implemented for virtual response where applicable. Worksheets/forms were converted to PDF fillable documents to accommodate the current virtual protocol. ODH-BEHCP continues to see the benefit of participating in the power plant integrated drills. In SFY 2021, ODH-BEHCP participated in a total of 4 integrated drills with the power plants.

Staff participated in a webinar held on October 30, 2020 related to the Federal Radiological Monitoring and Assessment Center (FRMAC) software, TurboFRMAC.

Potassium Iodide (KI)

ODH issued an extension for the prior lot of KI on November 4, 2019, which provided additional time during pandemic conditions to distribute KI before the extension expires on December 31, 2021. The new lot of KI arrived in July 2020 and the plastic bags and inserts for separation from the original packaging arrived in October 2020. The emergency worker KI has been delivered for distribution with the yearly equipment exchange. However, due to pandemic conditions, the local health districts requested a delay in the distribution of the general public KI, which will be distributed late summer 2021.
Radiological Environmental Monitoring Activities

ODH-BEHRP staff performs offsite radiological environmental monitoring activities at the DBNPS, PNPP, and BVPS. Surface water, potable water, bottom sediment, fish, produce, and air samples are collected by local health districts (under contract with ODH) and analyzed by the ODH Public Health Laboratory. All sample results collected during the report period indicated that radioactivity levels are at or near the Lower Limit of Detection (LLD) and well below the NRC release criteria.

All calibration verifications of the dry gas meters are currently scheduled for calibration verification in early SFY 2022. No equipment was replaced for the two locations evaluated in this fiscal year. The inventory needs of each contractor continued to be met throughout the year as supplies necessary for the continued collection of samples were provided to the contractors. All environmental contractor audits for SFY 2021 were completed.

RadResponder

RadResponder is a network used to manage, record, and share radiological data. The system is a collaborative effort of the Department of Energy (DOE), the Federal Emergency Management Agency (FEMA), and the US Environmental Protection Agency (US EPA). The State of Ohio has adopted RadResponder and through training and documentation has received the qualification of being “RadResponder Ready”. One ODH employee has earned the RadResponder Train-the-Trainer Certificate in all four modules: Data Collections, Event Management, Organization Administrator, and RadResponder General and is now qualified to teach these modules. This staff member trains other state agencies on the use of RadResponder.

RadResponder is also being incorporated for use in all types of Radiological incidents/exercises within Ohio.

Other Related Items

A member of the ODH-BEHRP staff virtually attended the FEMA Region V Scheduling Conference in November 2020. The conference featured speakers from FEMA Region V, FEMA Headquarters, NRC, and various states.

Due to COVID-19, the National Radiological Emergency Preparedness (NREP) Conference was again cancelled for 2021.

ODH-BEHRP virtually observed the Fermi Nuclear Power Station Reentry, Relocation, and Return (RRR) exercise in May 2021 to learn from other states.
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 activities to mitigate, prepare for, respond to and recover from disasters. 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 (State EOC), data links to nuclear power plants, and multiple communications links to federal, state, and county organizations. The Ohio EMA implements federal and state policies and programs, and supports county emergency management agencies.

The Executive Director of Ohio EMA supervises the day-to-day operations of the agency’s professional and technical support personnel and serves as the chair of the Utility Radiological Safety Board (URSB).

The Radiological Branch Chief serves as the State Liaison Officer to the Nuclear Regulatory Commission for the State of Ohio.

The Ohio EMA is organized into five Divisions: Communications, Operations, Preparedness, Administration, and Fiscal, which work together, to accomplish its mission. The Communications Division and Fiscal Division operate independently. The Preparedness Division consists of the Radiological, Logistics, Public Affairs, and Planning Training and Exercise Branches. The Administration Division consists of Grants, Mitigation, and Recovery Branches. The Operations Division consists of the Watch Office, and Regional Operations Branches and has responsibility for the State Emergency Operations Center (SEOC). 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 radioactive waste, coordinates the transport of spent fuel and high-level radioactive materials across Ohio, and is the coordinating agency for the Ohio Radiological Nuclear Detection (RND) program.

**Nuclear Power Plant Incidents**

Ohio EMA in conjunction with the Ohio State Highway Patrol Dispatch is the initial point of notification for all declared incidents concerning the nuclear power plants that affect Ohio. In SFY 2021, there were no classifiable events.
Events of Potential Public Interest

Ohio EMA is also the point of contact for the nuclear power plants for Events of Potential Public Interest (EPPI), which are events that are not classified under the Emergency Classification Levels, but may still rise to the level of public concern. Ohio EMA disseminates these events to the member agencies, Nuclear Regulatory Commission (NRC), Federal Emergency Management Agency (FEMA), and other concerned parties. There were fifteen EPPIs in SFY 2021, the majority of which were for emergency medical service for non-work related conditions.

Nuclear Power Plant Exercises and Drills

Ohio EMA is responsible for the design, coordination, and execution of Radiological Emergency Preparedness (REP) Evaluated Exercises in Ohio. These FEMA evaluated exercises are a required part of the REP program. In addition to the large graded exercises there are numerous drills conducted throughout the year to ensure that the State of Ohio and the counties surrounding our nuclear power plants are prepared at and above FEMA standards.

There were three successful FEMA evaluated exercise in SFY2021 with no findings or recommendations for improvement:

- Beaver Valley Power Station (BVPS) Plume Exposure Pathway Exercise on November 10, 2020.
- Davis-Besse Nuclear Power Station (DBNPS) Full-Scale Exercise on May 4, 2021.
Ohio EMA participated with applicable counties in the following integrated drills and dry runs. Some of the scheduled drills were cancelled/postponed due to COVID-19 restrictions:

- **PNPP:**
  - 08/12/2020 – Exercise Dry-Run
  - 06/09/2021 – Integrated Drill (Cancelled)
- **BVPS:**
  - 07/16/2020 – Integrated Drill
  - 10/15/2020 – Exercise Dry-Run
  - 11/19/2020 – Integrated Drill
  - 02/04/2021 – Integrated Drill (Cancelled)
  - 03/35/2021 – Integrated Drill
- **DBNPS:**
  - 08/04/2020 – Integrated Drill (Cancelled)
  - 08/25/2020 – Integrated Drill (Cancelled)
  - 10/06/2020 – Integrated Drill (Cancelled)
  - 02/23/2021 – Integrated Drill
  - 03/30/2021 – Exercise Dry-Run
- **Field Monitoring Team (FMT) Drills:**
  - 05/13/2020 – FMT Dry-Run (Postponed)

**Radiological Instrumentation Maintenance and Calibration**

The Radiological Maintenance and Calibration Laboratory (RIMC) continues to repair and calibrate radiological response instruments, meters, and equipment used by emergency services personnel in both the State of Ohio and out-of-state agencies.

The RIMC Laboratory maintains the FMTs that respond to nuclear power incidents in the State of Ohio.

The RIMC Laboratory has successfully moved into its new Laboratory at Ohio EMA.

**Emergency Planning**

The 2021 State REP Plan revision was submitted to FEMA for review in March 2021. In addition to the state plan, the plans for counties were submitted along with their supporting Standard Operating Procedures.

Ohio EMA Radiological Branch continues to facilitate quarterly Nuclear Emergency Planning Advisory Committee (NEPAC) and monthly Nuclear Power Plant Emergency Planning (NPPEP) meetings that include Local, State and Federal partners.

The National Radiological Emergency Preparedness Conference (NREP) 2021 conference was cancelled due to COVID-19.
**Common Dose Assessment**

Members of the Radiological Branch continue their training as Federal Radiological Monitoring and Assessment Center (FRMAC) Assessment Scientists with continuing education quarterly with the Department of Energy’s Emergency Operations Training Academy. Maintaining FRMAC certification will enable the State of Ohio to integrate with the FRMAC scientists in the event of an incident.

**Regulatory Review**

The Radiological Branch of Ohio EMA reviews hundreds of documents from the NRC, FEMA, Energy Harbor Nuclear (EHN), and other State, County and Federal agencies every year.

**Personnel Changes**

Steve Bertonaschi, Radiological Analyst Supervisor, has accepted a new position with the Federal Government.

Bart Ray, Columbiana County Resident Radiological Analyst, has retired.

Pete Hill has accepted the Columbiana County Resident Radiological Analyst position.

Holly Welch, Administrative Director, has accepted a position with the Ohio Attorney General’s Office.

Tony Davis has accepted the Columbus Radiological Analyst position.
The Ohio Environmental Protection Agency (Ohio EPA) regulates emissions to the environment to ensure clean air, clean water, and the proper disposal of solid and hazardous waste, and enforces management standards in order to protect Ohio citizens and the environment.

In broad terms, nuclear plants are regulated by the National Pollutant Discharge Elimination System (NPDES), hazardous waste rules, air permitting rules, etc. As with other industries in the State, Ohio EPA divisions receive compliance information on permitted activities and tracks that performance.

Regarding the Davis Besse Nuclear Power Plant (DBNPS) and the Perry Nuclear Power Plant (PNPP), all required reports have been submitted to the Ohio EPA and there are no compliance issues identified in the reporting period. Additional compliance history and information can be obtained by contacting Ohio EPA’s Northwest and Northeast District Offices respectively.

During exercises for nuclear power plant emergency and in the event of an actual incident involving the release of radioactive material, Ohio EPA has a Radiological Assessment Team that is trained to collect environmental samples to assist other State resources to assist determining the extent of any contamination. In addition to providing field sampling teams for environmental media, Ohio EPA also provides assistance at the State Emergency Operations Center (SEOC).

Ohio EPA participates in power plant evaluated exercises and drills with other state agencies. From July 2020 to June 2021, Ohio EPA participated in scheduled drills and exercises including after action discussions:

- **Beaver Valley Power Station (BVPS)**: Ohio EPA participated in both the Integrated Drill and a Dry Run Exercise.
- **PNPP**: Ohio EPA participated in both the Dry Run Exercise and Exercise.
- **DBNPS**: Ohio EPA participated in Integrated Drills, systems training, dose assessment, Dry Run Exercise and Exercise.

Ohio EPA has participated in the Nuclear Power Plant Emergency Planning (NPPEP) Meetings, Nuclear Emergency Planning Advisory Committee (NEPAC) Meetings, Utility Radiological Safety Board (URSB) Meetings, and Radiological Technology Working Group Meetings that were held throughout this reporting year.
Ohio EPA RAT Members have completed a variety of online trainings associated with radiological preparedness and emergency response throughout this reporting year. Of note, Ohio Department of Health provided an extensive 5-day RadResponder Train-the-Trainer to Ohio EPA. The course was very well-received, and Ohio EPA was RadResponder Certified on April 1, 2021.
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 transportation, electric, natural gas, telecommunications, and water/wastewater companies operating in the State of Ohio. 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 railroad transportation of hazardous materials, including radioactive materials. PUCO staff are 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 route-controlled quantities of radioactive materials shipments using the CVSA Level VI, 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. The Federal Motor Carrier Safety Administration requires all highway route-controlled quantities of Class 7 materials pass a CVSA Level VI inspection as specified in 49 CFR 385.415(b)(1).

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, signals, and operating practices.
PUCO personnel often work closely with Ohio Emergency Management Agency (Ohio EMA), and Ohio Department of Health (ODH) personnel to coordinate and conduct inspections of high level and special interest radioactive materials shipments. This includes radioactive industrial sources and shipments of radioactive waste. PUCO personnel inspect and escort all US DOT regulated highway route-controlled quantities and as applicable quantities of concern shipments that enter or travel through Ohio.

FY 2020 Accomplishments:

- Maintained a “Rad” coordinator to manage the PUCO’s collective involvement and multiagency efforts dealing with radiological safety and training.
- Active participant with Ohio EMA Nuclear Power Plan Emergency Planning (NPPEP) working group to include representing the PUCO during FEMA evaluated exercises as well as the agency’s integration into WebEOC.
- Participated in RadResponder Radiological Technology Working Group from the Ohio Department of Health.
- Began updating RadResponder Ready application to meet new Department of Energy standards.
- Continued to fine tune the dose assessment/monitoring program using the Instadose Bluetooth enabled whole body badges.
- Attended the Midwestern Radioactive Materials Transportation Committee (MRMTC) spring meeting.
- Two PUCO field staff selected/scheduled for Level VI instructor certification.