

Commonwealth of Pennsylvania

Radiation Protection Act

Report to the General Assembly

Pursuant to Act 31 of 2007



pennsylvania

EMERGENCY MANAGEMENT AGENCY

Prepared by:

**The Pennsylvania Emergency Management Agency
Bureau of Technological Hazards**

September 30, 2020

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Pennsylvania Emergency Management Agency Nuclear Power Fees and Expense Review

Executive Summary

The Radiation Protection Act, Act 147 of July 10, 1984, (Radiation Protection Act, or Act) required the Pennsylvania Emergency Management Agency (PEMA) to establish and maintain a radiation protection program. The Act also established a related and complementary nuclear/radiological emergency response authority within the Department of Environmental Protection (DEP). After the terrorist attacks of September 11, 2001, it became necessary to provide additional transportation security of large-quantity shipments of radioactive materials moving within and through the Commonwealth. Act 31 of 2007 (Act 31) amended the Radiation Protection Act to include a fee increase and a provision that specified a review of PEMA's nuclear power plant (NPP) fees every three years beginning in 2009. PEMA administers three funds associated with fees collected in accordance with 35 Pa. C.S. § 7320, *Radiological Emergency Response Preparedness, Planning And Recovery Program*.

The Radiation Emergency Response Program (RERP) provides funding utilized by PEMA to support emergency response operations, develop and maintain emergency plans, conduct required exercises, and provide training and equipment for state and local emergency response personnel. The RERP provides two special funds which enable PEMA to carry out its responsibilities: the Radiation Emergency Response Fund (RERF) and the Radiation Transportation Emergency Response Fund (RTERF). The RERF is funded through fees directly associated with NPP. This funding provides financial assistance through direct disbursements and reimbursements to municipalities, school districts, volunteer organizations, and state agencies for NPPs' response planning, preparedness, personnel costs, training and exercises, and equipment and supplies. The RTERF utilizes fees collected from various shippers of high-level radiological materials into, within, or through the Commonwealth when escorted by the Pennsylvania State Police (PSP). These fees are used to support training and equipping state and local agencies, as well as volunteer organizations, along prescribed transportation corridors.

Act 31 increased annual fees from the NPPs to PEMA to \$350,000 per NPP site with \$200,000 allocated to RERP and \$150,000 allocated to RERF. Any unused RERF funds are returned to PEMA for re-allocation in the following fiscal cycle. PEMA's fees relative to the RTERF were established at \$2,500 per individual vehicle shipment or \$4,500 per railroad car or river barge shipment.

Act 31 also included a provision requiring PEMA and DEP to form a Working Group with the NPP representatives to review these fees on a triennial basis. During the 2014 Working Group, it was determined that a \$75,000 per year fee increase per NPP site was necessary to meet the requirements established in 35 Pa. C.S. § 7320 related to the RERP. This funding increase was due to increases in salaries and benefits, increases in costs of support services for required exercises, and replacement of aging equipment. Based on the projected increased costs, annual NPPs' fees were increased from \$200,000 to \$275,000 per NPP site effective July 1, 2015. No additional increases were requested for the RERF or RTERF.

This report is PEMA's work product based on the actual expenditures during the three-year review period of State Fiscal Years (SFY) 2016-2017, 2017-2018, and 2018-2019, with projections through SFY 2023-2024. A joint teleconference meeting of the Working Group was held on Thursday, May 28, 2020. ***Following an extensive review, the Working Group recommends no increase to the current annual NPP fees of \$425,000 per NPP site, as required by the Radiation Protection Act.***

Introduction

The Radiation Protection Act requires PEMA and DEP to:

- Establish a comprehensive radiation emergency response program supported by fees from the nuclear industry
- Establish a Radiation Transportation Emergency Response Plan and Procedures for notification of spent nuclear fuel shipments, PSP escort, and collection of fees
- Provide notification of unusual radioactivity by nuclear power facility operating licensees to the municipalities
- Develop and maintain detailed fixed nuclear site emergency response plans for areas surrounding each nuclear electrical generation facility
- Train and equip state and local emergency response personnel
- Develop and participate in required exercises
- Procure specialized equipment and supplies
- Provide financial assistance to municipalities, school districts, volunteer, and state agencies

Overview of the Radiological Emergency Preparedness (REP) Program

PEMA's Bureau of Technological Hazards, NPP Division administers the PEMA radiation protection programs; further, the Bureau conducts the day-to-day responsibilities and duties as mandated in Act 31. The Planning Administrator (also identified as the Division Chief) and support staff provide administrative oversight and technical guidance for all NPP-related program elements. The Planning Administrator is the lead point of contact for all NPP classified or non-classified events/incidents and, as such, advises the senior state officials on the implementation of emergency response actions and protective measures. The Planning Administrator administers and coordinates NPP-related activities with all PEMA departments and state agencies. These activities include, but are not limited to, response operations, planning, training, exercises, and grants management. Staff is comprised of a Planning Administrator, four Emergency Management Specialists (EMS), an administrative assistant, and one clerical support person.

An EMS is assigned to each of three NPP sites: Beaver Valley Power Station (BVPS), Limerick Generating Station (LGS) and Susquehanna Steam Electric Station (SSES). The fourth EMS is assigned to two NPP sites: Peach Bottom Atomic Power Station (PBAPS) and Three Mile Island (TMI). EMS personnel routinely interface with the NPPs, DEP, numerous state agencies, local responders, and others to ensure emergency response planning and capabilities are reviewed, updated, and maintained. A great deal of effort is put into planning reviews, exercise development, and training to support this effort. Based on planning standards provided by the Federal Emergency Management Agency (FEMA), "state, local and tribal Offsite Response Organizations (OROs) must conduct joint full-participation exercises with the licensee biennially." Due to these planning standards, EMS devote a minimum of 20 weeks into planning, coordinating, and developing each federally-evaluated exercise. Three federally-evaluated exercises are conducted during even calendar years and two are conducted during odd calendar years. Each of these required exercises is preceded by a pre-exercise drill (dress rehearsal); the full-scale exercise itself requires a full activation of the Commonwealth Response Coordination Center (CRCC) and its contributing state agencies. The execution of these required exercises involves considerable time, cost in the form of travel and lodging expenses, and overtime for staffing field assignments throughout the various Emergency Planning Zones (EPZs).

There is a significant level of coordination and periodic costs funding for replacement or replenishment of aging equipment. The NPP Division's Administrative Assistant is responsible for such coordination and control of all statewide radiological equipment inventories, maintenance, and replacing of aging equipment. The Grants Administrative Officer with the Bureau of Grants Management oversees and administers the RERF Grant to the risk and support counties who support the NPP EPZs, and the Commonwealth departments and agencies in support of the REP Program. Administering this grant program requires substantial effort in the review and execution of funds. Appendix A displays figures based on the RERF actual amounts expended each year.

The NPP Division also utilizes the support of a Geographic Information System (GIS) Specialist. The GIS Specialist provides ongoing development, monitoring, and updating of geospatial information in support of evacuation planning, and produces multiple EPZ mapping data sets in-house for use by the utilities and counties, including evacuation mapping and Ingestion Pathway Zone (IPZ) maps. There are also numerous support personnel with varying levels of percentage funding needed to support response operations, communications, training, and duties associated with the formal exercise evaluation requirements. For example, the Commonwealth Watch and Warning Center personnel receive 7.5 percent of RERP funding to support training and conduct 24/7 alert and notification actions.

To ensure the Commonwealth has highly qualified and competent personnel available for exercises and real-world incidents, Pennsylvania has established a certification program for emergency workers based on nationally-recognized standards. This certification program outlines requirements for personnel engaged in radiological response efforts, including Radiological Response Technicians (RRT), Radiological Officers (RO), and Radiological Instructors (RI). Through this program, the Commonwealth has developed an enhanced operational capability to address response needs including a mechanism to provide just-in-time training for first responders during a radiological emergency. This certification program is considered a "best practice" by FEMA, as it ensures program integrity and competency. Funds derived from the RERP, RERF, and the RTERF (as this certification extends beyond the affected NPP counties) are used to support the certification program. This program continues to pay great dividends in the NPP community and elsewhere in the Commonwealth toward ensuring our preparedness for radiological emergencies.

The RTERF account is funded by fees received from various shippers of high activity radiological materials that meet established criteria for such transportation to, from, and through the Commonwealth. The RTERF account balance has risen over the past two years based on a significant number of escorted shipments from Canada, through Pennsylvania, to Georgia. These numbers have remained constant through 2019, which allows for a sustained transportation sector radiological response capability well into the future should radiological shipments fall below current levels (see Appendix A, RTERF grant spreadsheet).

The RTERF has greatly supplemented costs of training the Commonwealth's first responder community. It establishes a mechanism to provide needed funds to counties not directly impacted or benefitting from the NPP program funds. These funds have been utilized to provide training programs and support the purchase of equipment needed by agencies and organizations along prescribed transportation corridors. A major allocation of the RTERF is used to conduct the Radiological Officers' Development in Emergency Operations (RODEO), a two-day event, which in the past has been conducted every two years. However, realizing the value of this program, PEMA will now facilitate this training annually. An annual offering will provide training required for certification and re-certification of county RRTs, ROs, and RIs. RTERF funding for this activity pays for facility fees, salaries, and any travel costs needed to plan and

conduct this event. Additionally, these funds provide a grant for various counties and requesting state agencies to sustain equipment and training needs. PEMA will continue to analyze funding projections to provide any adjustments to salary or equipment needs.

Outputs by Program Area

RERP – 9.0 Full Time Equivalent (FTE)

- The Director, Bureau of Technological Hazards oversees the NPP Division.
- Five NPP Division staff (one Planning Administrator and 4 EMS personnel) provides direct participation in meetings, planning and training for plume, ingestion phase, and hostile action-based tabletops, rehearsals, and functional exercises. Staff also provides coordination and oversight of the Medical Services (MS-1) Program that includes 16 Pennsylvania hospitals and a third-party contractor that develops, revises, and provides training to emergency medical services and pre-identified hospitals that would provide care to injured and potentially contaminated patients as a consequence of an incident at any one of our NPPs.
- The NPP Division's Administrative Assistant provides inventory control for radiological equipment inventories and calibration records, and supports PEMA's Training and Exercise Division with training requests, logistics, and validation of training records for certification.
- GIS Specialist provides ongoing development, monitoring, and updating of geospatial information in support of evacuation planning.
- One clerical person is assigned to support the NPP Division.
- Commonwealth Watch and Warning Center personnel receive 7.5 percent of RERP funding for training and to conduct 24/7 alert and notification actions.
- All PEMA personnel assigned to support the NPP drills and exercises receive time and expenses paid through RERP.

RERF – 1.0 FTE

- An Administrative Officer from the Bureau of Grants Management provides year-round monitoring and administrative support of the RERF Grant.
- The four NPP Division EMS personnel provide oversight and review of the RERF Grant.
- Grants are provided to each of the 26 NPP affected risk and support counties for annual training obligations and equipment purchases in support of the REP Program.
- Multiple state agencies are provided grant funding in support of REP program needs. Recipients of grant monies included the Pennsylvania Department of Corrections, Department of Health, Department of Military and Veterans Affairs, Department of Agriculture, and the Pennsylvania State Police. Monies were used by these recipients to provide radiological training, radiological equipment (e.g., survey meters and dosimeters), printing services, and travel expenses in support of REP program activities.

RTERF – 0 FTE

- Currently, no full-time expenditure is assigned to the administration of this funding stream.
- Funding has been used to support the RODEO expenses and to offset non-use of RERP salaries.
- Funding has been used for equipment and training purchases not expressly RERP-related.

- RTERF funds will be used for non-RERP related salaries as it relates to transportation program needs; further analysis is required.
- Future RTERF grant funding to counties and requesting state agencies will be made available for non-RERP specific training and equipment needs; further analysis is required.

Program Issues and Efficiencies

PEMA's top priority is protecting the health and safety of the citizens of Pennsylvania. PEMA continues to be good stewards of the funds provided by the NPPs, as well as those funds received through the RTERF, by implementing and maintaining an outstanding program acknowledged by our federal partners and adjacent REP states with whom PEMA shares EPZs. Further, PEMA strives for efficiency through careful utilization of these multiple funding streams to strengthen the RERP program. To that end, the following program efficiencies have been utilized:

- Significant effort is placed in minimizing NPP exercise expenses through careful staffing assignments to reduce travel and overtime costs.
- PEMA has utilized these funding streams, particularly the RTERF, to offset/reduce the impact on the RERP Fund. For example, the RODEO was conducted, and necessary equipment was acquired using RTERF funds.
- Traditional non-REP PEMA personnel contributing to the drills and exercises are poised to address and assist many county and municipal unmet needs.
- PEMA's GIS Specialist produces multiple EPZ mapping data sets in-house for use by the utilities and counties, including evacuation mapping and IPZ maps.

Financial Summaries for RERP, RERF and RTERF

The Financial Summaries are attached in Appendix A to this justification. Below is a summary of total expenditures by SFY showing previous years actual, planned and projected spending for each funding stream.

RERP Actual Spending

| SFY 2016-2017 | SFY 2017-2018 | SFY 2018-2019 | SFY 2019-2020 |
|----------------------|----------------------|----------------------|----------------------|
| \$1,519,855 | \$1,312,653 | \$1,583,414 | \$1,735,602 |

RERP Planned Spending

SFY 2020-2021 – \$1,400,000

RERP Projected Spending

For the purposes of this justification, planned expenditures are documented through the end of SFY 2020-2021. The RERP has made an estimated projection of expenses through SFY 2023-2024. This projection has assumed a simple three percent annual increase of labor and expenses, predicated on an adjusted base SFY 2020-2021 spending. Increased costs are being projected forward to address planning processes to update Annex E, the Commonwealth Radiological/Nuclear Plan, hostile-action based exercises, purchase of personal reading dosimeters, and replacement of aging equipment. These projected carryover costs are essential to advancing and maintaining the RERP program. Any excess carryover of

funds beyond completion of the above items serve as a buffer for increased labor and services costs, as well as meeting unexpected financial challenges.

| SFY 2021-2022 | SFY 2022-2023 | SFY 2023-2024 |
|---------------|---------------|---------------|
| \$1,500,000 | \$1,500,000 | \$1,500,000 |

RERF Actual Spending

| SFY 2016-2017 | SFY 2017-2018 | SFY 2018-2019 | SFY 2019-2020 |
|---------------|---------------|---------------|---------------|
| \$721,583 | \$782,556 | \$707,282 | \$788,554 |

RERF Planned Spending

SFY 2020-2021 – \$750,000

RERF Projected Spending

Actual expenditures are documented through the end of SFY 2019-2020. The RERF estimates projection of expenses through SFY 2023-2024. This projection has assumed no increases in the grant to counties and requesting state agencies. It further assumes no returns of unspent grant dollars needed for subsequent reallocation in succeeding years.

| SFY 2021-2022 | SFY 2022-2023 | SFY 2023-2024 |
|---------------|---------------|---------------|
| \$750,000 | \$750,000 | \$750,000 |

RTERF Actual Spending

| SFY 2016-2017 | SFY 2017-2018 | SFY 2018-2019 | SFY 2019-2020 |
|---------------|---------------|---------------|---------------|
| \$20,622 | -\$3.00 | \$513 | \$14,688 |

RTERF Planned Spending

SFY 2020-2021 – \$80,000

RTERF Projected Spending

For the purposes of this justification, planned expenditures are documented through the end of SFY 2020-2021. The RTERF has made an estimated projection of expenses through SFY 2023-2024. This projection assumes an approximate \$100,000 in annual revenue increase carryovers through the end of the fiscal period due to the projected Canadian shipping campaign schedule. Additional analysis is being conducted to determine adjustments to offset salary and equipment costs, and the issuance of an RTERF grant to develop and sustain radiological transportation response training and equipment to counties and affected state agencies.

| SFY 2021-2022 | SFY 2022-2023 | SFY 2023-2024 |
|---------------|---------------|---------------|
| \$115,000 | \$115,000 | \$115,000 |

Explanation of RERP Financial Summary Table

The following is an explanation of the financial summary table to express noted details of the expenditures therein:

NPP-Related Salaries and Benefits

This number comes from actual timesheets coded to NPP-related work codes in the Commonwealth's SAP enterprise accounting system. It includes health benefits, Social Security, Medicare, life insurance, workers compensation, leave payouts, and retirement. Actual benefit rates for future years are not available. Additional fluctuations are based on overtime required to support the biennial exercise preparations, including training and auditing of offsite response organizations and cycling three exercises in the even years and two in the odd years.

Operational Expenses

Operational expenses consist of overhead, which include but are not limited to: electricity, phone, information technology (IT), postage and administrative indirect costs; MS-1 exercises and contractor training costs; travel and vehicle costs; REP drills and exercises; equipment purchases; and meetings and conferences. Substantial operational costs are related to the planning and execution of all the required federally-evaluated exercises. The execution of these required exercises involves considerable time and cost in the form of travel and lodging expenses, including overtime for staffing field assignments for the various EPZs. As most of these exercises are conducted in the evenings, overtime costs are also expended for personnel assigned to the CRCC. Technology costs associated with these exercises are incurred for personnel and satellite time needed to demonstrate broadcast capability. NPP exercise expenses are averaged at \$35,000 per exercise. Below are notable elements under Operational Expenses:

Overtime for NPP-Related Training Rehearsals/Drills

Union contract-covered staff are compensated for off-hours participation in training, drills, and exercises. Supervisors and managers are generally not currently compensated for REP-related activities and events.

Travel/Training

Since the last triennial review, the NPP Division encountered staff turn-over. NPP Division employees are required to attend emergency response/NPP-radiological specific training.

All REP personnel in the Bureau are required to complete Incident Command System (ICS) 100, G-191, IS-2200, NIMS IS-700, NRF IS-800 and encouraged to complete IS-300 and IS-400. Staff is further required to complete and maintain competencies through the following courses: REP Core Concepts, REPP Exercise Evaluation, Modular Emergency Radiological Response Transportation Training (MERRTT), Radiation Emergency Assistance Center/Training Site (REAC/TS) and Homeland Security Exercise and Evaluation Program (HSEEP). Staff is also encouraged to seek advanced training through the completion of Radiological Emergency Response Operations (RERO), Advanced Radiological Incident Operations (ARIO), and other advanced course instruction as may be available, if at all possible.

Communications Enhancements

PEMA has invested in upgrading systems hardware and software in support of NPP communications, moving from analog to digital interfaces.

Indirect Costs

Indirect costs include leases, utilities, general office information technology, and other shared operational expenses, as well as shared interagency expenses, e.g., Civil Service, Payroll Operations, etc.

Explanation of RERF Financial Summary Table

NPP-Related Salaries and Benefits

This data is derived from actual timesheets coded to NPP-related work codes in the Commonwealth's SAP enterprise accounting system for one FTE for services provided by personnel in the Bureau of Grants Management. It includes health benefits, Social Security, Medicare, life insurance, workers compensation, leave payouts and retirement. Actual benefit rates for future years are not available. Any fluctuations are based on overtime required to support the RERF Grant processing and deadlines commitments.

Operational Expenses

These expenses represent miscellaneous office supplies needed to support grants processing.

Grant Expenses

Funds are administered under the RERF to counties and state agencies on an annual basis. The annual revenue for the RERF is \$750,000, of which 85 percent (\$637,500 typically) is for grants to NPP affected counties, 5 percent (\$35,000 typically) is for state agencies, and 10 percent (\$75,000 typically) is for the administration of the grants. Appendix A shows figures based on the RERF actual amounts expended each year. Deviations in Grant Expenses and Ending Balance are based on unspent funding which is returned for re-allocation in the following year.

Detailed Explanation of RTERF Financial Summary Table for Discussion with NPP Representatives

Salaries and Benefits

This data is derived from actual timesheets coded to RTERF-related work codes in the Commonwealth's SAP enterprise accounting system for services provided by personnel as assigned. It includes health benefits, Social Security, Medicare, life insurance, workers compensation, leave payouts, and retirement. Actual benefit rates for future years are not available. Any fluctuations are based on assigned support to RTERF activities.

Operational Expenses

A major allocation of the RTERF is used to conduct the RODEO, a two-day event conducted every two years, which provides training for certification and re-certification of county RRTs, ROs and RIs. RTERF funding for this activity provides facility fees, salaries, supplies, and any travel costs needed to plan and conduct this event. RTERF funding is also utilized to conduct and facilitate training of jurisdictions along the major radiological transportation corridors. Additional analysis is being conducted to determine adjustments to offset salary and equipment costs, and the issuance of an RTERF grant to develop and sustain radiological transportation response training and equipment to counties and affected state agencies.

Program Changes

Three Mile Island (TMI) Generating Station Unit 1, owned by Exelon Corporation, ceased power operations on September 20, 2019. Exelon removed all fuel from the TMI Unit 1 reactor on or before September 26, 2019. TMI's license issued by the Nuclear Regulatory Commission (NRC) is now a use and possession facility license which no longer authorizes Exelon to operate TMI Unit 1. By the end of January 2021, response activities from OROs will no longer be required as the EPZ will shrink significantly to a 2,000 foot Exclusion Area Boundary. It is projected that all spent fuel will be stored on site in dry cask storage by the end of 2022. Due to these projections, Exelon strongly favors eliminating certain agency fees, paid to PEMA, pursuant to the Radiation Protection Act.

Section 402 of the Act requires PEMA to charge and collect agency fees for those nuclear power reactor sites which possess the following three criteria: spent nuclear fuel stored onsite, not fully dismantled and decommissioned pursuant to applicable Federal laws and regulations, and not been granted license termination by the NRC. 35 P.S. § 7011.402(c)(1.1)(i.1).

Exelon/TMI currently meets the three criteria listed in Section 402 of the Act, mandating PEMA to charge and collect nuclear facility and transport fees from Exelon. Though ORO response and emergency plans are no longer required, PEMA intends to conduct tabletop exercises (including hostile action-based scenarios and fuel bundle drop scenarios) and to incur staff costs and expenditures paid in part by those Section 402 fees.

PEMA and DEP's Bureau of Radiation Protection (BRP), held a conference call with Exelon on August 10, 2020. During the call, PEMA agreed to convene a working group with Exelon, other Utilities, and BRP outside of the triennial working group, to explore the possibility of changing the language in the Act to account for fees in several stages, most notably to include a level fee for operating reactors and a different level fee for decommissioning reactors. This group will meet periodically within the next three years to begin that process. However, PEMA will continue to charge and collect the fees until Exelon/TMI no longer meets the three criteria of Section 402, or upon an amendment to the language of Section 402 of the Act through legislation.

Program Recommendation

Under the current fee schedule, planned PEMA spending will not exceed expected revenue plus carryover funds before the end of SFY 2023-2024. *Therefore, no NPP fee increase is recommended at this time.*

The Working Group for this fee review in accordance with the Radiation Protection Act is as follows:

| NAME | TITLE | AFFILIATION |
|---------------------|--|-----------------------|
| Sean Zalesny | Manager | Energy Harbor Nuclear |
| David Linkimer | EP Supervisor | Energy Harbor Nuclear |
| Ronald Remsky | EP Superintendent | Talen Energy |
| Megean Brown | Sr. Nuclear EP Coordinator | Talen Energy |
| Dennis Moore | Sr. Manager EP | Exelon Nuclear |
| Sara Schmidt | EP Specialist | Exelon Nuclear |
| Krishnan Ramamurthy | Deputy Secretary | PA DEP |
| David Allard | Director | PA DEP |
| Rich Janati | Chief, Division of Nuclear Safety | PA DEP |
| David Nitsch | Director for the Bureau of Technological Hazards | PEMA |
| David Wightman | Fiscal Management Specialist | PEMA |
| Sandra Silva | Acting Division Chief | PEMA |

EP – Emergency Preparedness

Sr. – Senior

– End of Report –

APPENDIX A

FINANCIAL SUMMARIES:

**RADIOLOGICAL EMERGENCY RESPONSE PLANNING
RADIATION EMERGENCY RESPONSE FUND
RADIATION TRANSPORTATION EMERGENCY RESPONSE FUND**

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Pennsylvania Emergency Management Agency
Radiological Emergency Response Planning (RERP)

| | FY 2015 /2016 Actual | FY 2016 /2017 Actual | FY 2017 /2018 Actual | FY 2018 /2019 Actual | FY 2019 /2020 Actual | FY 2020 /2021 Planned | FY 2021 /2022 Projected | FY 2022 /2023 Projected | FY 2023 /2024 Projected |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|----------------------------|----------------------------|----------------------------|
| Carryover balance | \$ 583,553 | \$ 847,166 | \$ 764,318 | \$ 888,672 | \$ 740,812 | \$ 440,764 | \$ 481,764 | \$ 422,764 | \$ 363,764 |
| Revenue | | | | | | | | | |
| (5 @\$275,000 Each) | \$ 1,375,000 | \$ 1,375,000 | \$ 1,375,000 | \$ 1,375,000 | \$ 1,375,000 | \$ 1,375,000 | \$ 1,375,000 | \$ 1,375,000 | \$ 1,375,000 |
| Other revenue | \$ 58,158 | \$ 62,007 | \$ 62,007 | \$ 60,554 | \$ 60,554 | \$ 66,000 | \$ 66,000 | \$ 66,000 | \$ 66,000 |
| Total Revenue | \$ 1,433,158 | \$ 1,437,007 | \$ 1,437,007 | \$ 1,435,554 | \$ 1,435,554 | \$ 1,441,000 | \$ 1,441,000 | \$ 1,441,000 | \$ 1,441,000 |
| Expenditures | | | | | | | | | |
| Nuclear Power Plant Related | | | | | | | | | |
| Salaries and Benefits | \$ 990,177 | \$ 1,102,677 | \$ 1,120,943 | \$ 1,253,411 | \$ 1,059,738 | \$ 1,100,000 | \$ 1,200,000 | \$ 1,200,000 | \$ 1,200,000 |
| Operational Expenses | \$ 179,368 | \$ 417,178 | \$ 191,710 | \$ 330,003 | \$ 675,864 | \$ 300,000 | \$ 300,000 | \$ 300,000 | \$ 300,000 |
| Total Expenditures | \$ 1,169,545 | \$ 1,519,855 | \$ 1,312,653 | \$ 1,583,414 | \$ 1,735,602 | \$ 1,400,000 | \$ 1,500,000 | \$ 1,500,000 | \$ 1,500,000 |
| Ending Balance | \$ 847,166 | \$ 764,318 | \$ 888,672 | \$ 740,812 | \$ 440,764 | \$ 481,764 | \$ 422,764 | \$ 363,764 | \$ 304,764 |
| Operation expenses include: Travel, Telephone recurring cost, Vehicles, Shared Services (Media Services), Equipment. Power Plant Exercise expenses: Estimated at 35,000 per exercise. | | | | | | | | | |

Pennsylvania Emergency Management Agency
Radiological Emergency Response Fund (RERF)

| | FY 2015 /2016 Actual | FY 2016 /2017 Actual | FY 2017 /2018 Actual | FY 2018 /2019 Actual | FY 2019 /2020 Actual | FY 2020 /2021 Planned | FY 2021 /2022 Projected | FY 2022 /2023 Projected | FY 2023 /2024 Projected |
|--------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|----------------------------|----------------------------|----------------------------|
| Carryover balance | \$ 72,104 | \$ 16,793 | \$ 45,210 | \$ 12,654 | \$ 55,372 | \$ 16,818 | \$ 16,818 | \$ 16,818 | \$ 16,818 |
| | | | | | | | | | |
| Revenue | | | | | | | | | |
| (5 @\$150,000 Each) | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 |
| | | | | | | | | | |
| Total Revenue | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 |
| | | | | | | | | | |
| Expenditures | | | | | | | | | |
| Nuclear Power Plant Related | | | | | | | | | |
| Salaries and Benefits | \$ 76,411 | \$ 57,427 | \$ 67,879 | \$ 44,680 | \$ 74,000 | \$ 75,000 | \$ 75,000 | \$ 75,000 | \$ 75,000 |
| Operational expenses | \$ 3 | \$ 953 | \$ (951) | \$ 79 | \$ - | | | | |
| Grant Expenses | \$ 728,897 | \$ 663,203 | \$ 715,628 | \$ 662,523 | \$ 714,554 | \$ 675,000 | \$ 675,000 | \$ 675,000 | \$ 675,000 |
| | | | | | | | | | |
| | | | | | | | | | |
| Total Expenditures | \$ 805,311 | \$ 721,583 | \$ 782,556 | \$ 707,282 | \$ 788,554 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 |
| | | | | | | | | | |
| Ending balance | \$ 16,793 | \$ 45,210 | \$ 12,654 | \$ 55,372 | \$ 16,818 | \$ 16,818 | \$ 16,818 | \$ 16,818 | \$ 16,818 |
| | | | | | | | | | |

Pennsylvania Emergency Management Agency
Radiation Transportation Emergency Response Fund (RTERF)

| | FY 2015 /2016 Actual | FY 2016 /2017 Actual | FY 2017 /2018 Actual | FY 2018 /2019 Actual | FY 2019 /2020 Actual | FY 2020 /2021 Planned | FY 2021 /2022 Projected | FY 2022 /2023 Projected | FY 2023 /2024 Projected |
|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|----------------------------|----------------------------|----------------------------|
| Carryover balance | \$ 233,644 | \$ 252,855 | \$ 309,733 | \$ 507,236 | \$ 666,723 | \$ 767,035 | \$ 787,035 | \$ 772,035 | \$ 757,035 |
| | | | | | | | | | |
| Revenue | | | | | | | | | |
| | \$ 72,500 | \$ 77,500 | \$ 197,500 | \$ 160,000 | \$ 115,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 |
| | | | | | | | | | |
| Total Revenue | \$ 72,500 | \$ 77,500 | \$ 197,500 | \$ 160,000 | \$ 115,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 |
| | | | | | | | | | |
| Expenditures | | | | | | | | | |
| Salaries and Benefits | \$ 25,289 | \$ 7,046 | \$ (3) | \$ 275 | \$ 9,129 | \$ 5,000 | \$ 15,000 | \$ 15,000 | \$ 15,000 |
| Operational Expenses | \$ 25,958 | \$ 13,576 | \$ - | \$ 238 | \$ 5,559 | \$ 75,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 |
| Fixed Assets | \$ 2,042 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | | | | | | | | | |
| | | | | | | | | | |
| Total Expenditures | \$ 53,289 | \$ 20,622 | \$ (3) | \$ 513 | \$ 14,688 | \$ 80,000 | \$ 115,000 | \$ 115,000 | \$ 115,000 |
| | | | | | | | | | |
| Ending Balance | \$ 252,855 | \$ 309,733 | \$ 507,236 | \$ 666,723 | \$ 767,035 | \$ 787,035 | \$ 772,035 | \$ 757,035 | \$ 742,035 |
| | | | | | | | | | |

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APPENDIX B

CONCURRENCE LETTERS FROM NUCLEAR POWER PLANTS UTILITY OPERATIONS



168 East Market St.
Akron, Ohio 44308

June 26, 2020

Ms. Sandra Silva
Bureau of Technological Hazards
PA Emergency Management Agency
1310 Elmerton Avenue
Harrisburg, PA 17110

Dear Ms. Silva:

Energy Harbor has reviewed the Pennsylvania Emergency Management Agency (PEMA) triennial report information that was provided by PEMA and reviewed during our teleconference meeting held on May 28, 2020. We concur with your analysis and recommendation.

It is our understanding that no fee adjustment will be needed to adequately fund the PEMA emergency preparedness activities. Specifically, the RERP annual fee will remain at \$275,000 per nuclear power plant site and the RERF will remain at \$150,000 per site effective for the next three years.

Please let me know if you have any questions or require additional information.

Regards,

A handwritten signature in black ink, appearing to read "Sean A. Zalesny".

Sean A. Zalesny
Manager, Fleet Emergency Preparedness
Energy Harbor



Exelon Generation

June 17, 2020

Ms. Sandra Silva
Bureau of Technological Hazards
PA Emergency Management Agency
1310 Elmerton Avenue
Harrisburg, PA 17110

Subject: Review of Pennsylvania Emergency Management Agency Triennial Report Information

Dear Ms. Silva:

Exelon has reviewed the draft "Commonwealth of Pennsylvania Radiation Protection Act Report to the General Assembly Pursuant of Act 31 of 2007," Rev. 1 (referred to as the "Draft Report") prepared by the Pennsylvania Emergency Management Agency ("PEMA"). Details concerning this Draft Report were the subject of discussions at the Triennial Report Working Group Meeting held via teleconference on May 28, 2020.

Exelon understands that PEMA has not requested a fee adjustment to adequately fund PEMA's Radiation Emergency Response Program ("RERP") or Radiation Emergency Response Fund ("RERF") for Fiscal Years 2021/2022, 2022/2023, and 2023/2024. Specifically, PEMA has requested that the annual fees set forth in Section 402(c)(1.1)(i.1) for the RERP remain at \$275,000 per site and for the RERF remain at \$150,000 per site. On that basis, PEMA notes in the Draft Report that "the Working Group recommends no increase to the current annual NPP fees of \$425,000 per NPP site, as required by the Radiation Protection Act." As a member of the Working Group, Exelon agrees with this representation because the PEMA fees charged pursuant to Section 402 and 402(c) of the Radiation Protection Act no longer apply to one of Exelon's sites (Three Mile Island Unit 1 ("TMI Unit 1")). If, however, there is any disagreement as to whether the PEMA fees charged under Section 402 and 402(c) apply to TMI Unit 1, then Exelon disagrees with this representation in the Draft Report insofar as it does not exclude or otherwise include a fee reduction for TMI Unit 1, and Exelon requests that the Draft Report be updated to reflect Exelon's recommendations, as required by Section 4.02(c)(5) of the Radiation Protection Act, 35 P.S. § 7110.402(c)(5).

The "Nuclear facility and transport fees" set forth in Section 402 apply to "[p]ersons engaged in the business of producing electricity utilizing nuclear energy" to "cover the costs of the programs related to their activities" 35 P.S. § 7110.402(a). Exelon acknowledges that it is a "person" that is "engaged in the business of producing electricity utilizing nuclear energy." However, the fees payable to PEMA as described in Section 402(c)(1.1)(i.1) are per "site," not per "person." Exelon permanently shutdown TMI Unit 1 on September 20, 2019 and removed all of the fuel from the reactor by September 26, 2019. The license issued by the Nuclear Regulatory Commission ("NRC") is now a use and possession facility

license and no longer authorizes Exelon to operate TMI Unit 1, and TMI Unit 1 is no longer capable of "producing electricity utilizing nuclear energy." Moreover, for the fees in Section 402 to apply to TMI Unit 1, PEMA must incur "costs of the programs related" to activities at or for TMI Unit 1. And, for the fees in Section 402(c)(1.1)(i.1) to apply, Exelon must hold a "current nuclear power reactor . . . operating license from the NRC for a site." Exelon no longer possesses a NRC operating license (it now holds a use and possession facility license) for, and the license no longer authorizes Exelon to operate, TMI Unit 1. And, for the reasons that follow, PEMA and the non-agencies receiving fees under Section 402(c) will not incur program costs for TMI Unit 1. As such, the fees set forth in Section 402 no longer apply to TMI Unit 1. And, even if Section 402 and 402(c)(1.1)(i.1) apply to TMI Unit 1, the fees for the TMI site should be reduced to zero commensurate with the level of support that will be provided by PEMA beginning in fiscal year 2021/2022 forward.

As Exelon explained during the Working Group Meeting, the shutdown of TMI Unit 1 has decreased, and will significantly decrease going forward, the amount of resources required and expenses incurred by PEMA and the local municipalities, school districts, volunteer organizations, and state agencies (referred to as the "non-agencies") to develop and maintain emergency response plans, conduct exercises and training, and purchase and maintain equipment. When Exelon permanently shutdown TMI Unit 1 and permanently defueled the reactor in September 2019, Exelon implemented a Permanently Shutdown Emergency Plan and Technical Specifications for TMI Unit 1. In the first quarter of 2021, during PEMA's fiscal year 2020/2021 covered by Exelon's June 2020 payment, TMI Unit 1 will implement its Permanently Defueled Emergency Plan ("PDEP"). The PDEP is based on the fact that there is no credible event that could occur at TMI Unit 1 that could, under any circumstances, result in an offsite release of radiation or any appreciable release onsite. As a result, the Plume and Ingestion Pathways and associated Emergency Planning Zones will be eliminated, the Exclusion Area Boundary (2,000 feet) will become the new Emergency Planning Zone, and any onsite emergency will be handled exclusively by Exelon's onsite Emergency Response Organization. These broad and substantial reductions in risk also eliminate the need for a FEMA Radiological Emergency Plan for TMI, which means that there will no longer be a need for non-agency personnel to support emergency planning and the Agency functions under 35 Pa. C.S. § 7320 will no longer apply to TMI Unit 1. Therefore, as of Fiscal Year 2021/2022, PEMA will no longer incur any costs under Section 402(c) of the Radiation Protection Act for TMI Unit 1.

Removing TMI Unit 1 from the fees required by Section 402(c) is consistent with how PEMA and the General Assembly have treated fees associated with the other nuclear power reactors in the Commonwealth that have been permanently shutdown. Pursuant to Section 402(b.2) of the Radiation Protection Act, the other shutdown units -- Peach Bottom Unit 1 and Three Mile Island Unit 2 -- are not covered by the PEMA fees in Section 402(c). Exelon proposes that TMI Unit 1 be treated the same as these other shutdown reactors.

Ms. Sandra Silva
June 17, 2020
Page 3

We look forward to further discussion with you on these issues. In the meantime, please let me know if you have any questions or require any additional information.

Respectfully,

A handwritten signature in black ink, appearing to read "Dennis M Moore", with a long horizontal flourish extending to the right.

Dennis M Moore
Senior Manager, Exelon Emergency Preparedness
Exelon Generation Company, LLC

James Gorman
Manager-Nuclear Security and Emergency Preparedness

Susquehanna Nuclear, LLC
769 Salem Boulevard
Berwick, PA 18603
Tel. 570.542.1677



June 22, 2020

Sandra B. Silva, Acting Division Chief
Bureau of Technological Hazards
PA Emergency Management Agency
1310 Elmerton Avenue
Harrisburg, PA 17110

SUSQUEHANNA STEAM ELECTRIC STATION
PEMA Triennial Report Approval Letter
PLE-0026270

Talen Energy has reviewed the Pennsylvania Emergency Management Agency (PEMA) triennial report information that was provided by PEMA. Details concerning this report were the subject of discussions during the PEMA/Bureau of Radiation Protection (BRP) and PA Nuclear Utilities Triennial Fee Review Meeting on May 28, 2020.

Talen Energy understands that no fee adjustment will be needed to adequately fund PEMA's Radiation Emergency Response Program (RERP) or Radiation Emergency Response Fund (RERF). Specifically, the annual fee RERP is expected to remain at \$275,000 per nuclear power plant site and the RERF is expected to remain at \$150,000 per site effective for the next three years.

Please let me know if you have any questions or require additional information.

Respectfully,

A handwritten signature in black ink, appearing to be "JG", written over a circular stamp or seal.

James Gorman
Manager, Nuclear Security & Emergency Preparedness
Talen Energy

JG:ld

cc: Megean Brown, Supv., Emergency Preparedness