U.S. Department of Homeland Security Region V 536 South Clark Street, Floor 6 Chicago, IL 60605



Mr. Charles Casto Regional Administrator U. S. Nuclear Regulatory Commission Region III 2443 Warrenville Road Lisle, Illinois 60542-4351

Dear Mr. Casto:

Enclosed is one copy of the After Action Report / Improvement Plan (AAR/IP) for the October 2 and 3, 2012, Radiological Emergency Preparedness (REP) Full Participation Plume Exposure Pathway and Ingestion Pathway Exercises for the Perry Nuclear Power Plant. The State of Ohio, Lake, Geauga and Ashtabula Counties, and the utility owner/operator, FirstEnergy Corporation, participated in this exercise. The AAR/IP was prepared by the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) Region V, Radiological Emergency Preparedness Program.

There were no Deficiencies or Areas Requiring Corrective Action (ARCAs) for the State of Ohio or the Counties of Lake, Geauga and Ashtabula. There were no previous ARCAs issued to the State of Ohio or the Counties of Lake, Geauga and Ashtabula from a past exercise that were corrected. There were no ARCAs that were successfully re-demonstrated during the exercises.

A previous Planning Issue (03-10-5.a.1-A-03), which was issued under Criterion 5.a.1 – Primary Alert and Notification, was corrected by the State of Ohio prior to the exercise through submission of an updated procedure. This Planning Issue was corrected by adding language to the Ohio Department of Natural Resources (ODNR) Division of Watercraft Lake Erie Restriction / Clearance Checklist Boating Advisories 1.1 and 1.2 that identifies the position title and agency (the Executive Director of the Ohio Emergency Management Agency) responsible for authorizing the clearing of boat traffic on Lake Erie in accordance with joint County/State Protective Action Decisions. The procedure updates were verified by the evaluator during this exercise.

There were five Planning Issues identified during the exercises, three Planning Issues for the State of Ohio, one Planning Issue for Lake County, and one Planning Issue for Geauga County.

The first Planning Issue for the State of Ohio (47-12-2e1-P-01) was issued under Criterion 2.e.1 – Timely Post-Plume Phase Relocation, Reentry and Return Decisions are Made and Coordinated, whereby the Ingestion Zone Recovery and Reentry Advisory Group (IZRRAG) procedures and Radiological Assessment Branch Director Procedure 350, dated 4/4/2012, do not provide detailed direction regarding how to design ingestion and deposition soil/vegetation sampling plans to ensure the plume disposition area is fully characterized. The State of Ohio will direct the IZRRAG member

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agencies to review and, as appropriate, revise their procedures to provide better guidance for sampling plan development. These changes will be implemented no later than March of 2014.

The second Planning Issue identified for the State of Ohio (47-12-2e1-P-02) was also issued under Criterion 2.e.1 – Protective Action Recommendations are Based on Available Data, whereby the State Dose Assessment Systems Operator Procedure 352, dated 4/5/2012, does not provide a technical description or basis for the deposition sample calculations for 1st, 2nd, and 50-year dose and the subsequent Derived Response Level (DRL). The State of Ohio will direct the IZRRAG member agencies to review the sample processing methods and procedures and determine which process best meets the needs of the IZRRAG. Once this is determined, appropriate changes will be made to the affected procedures. This process will be completed no later than March of 2014.

The third Planning Issue identified for the State of Ohio (47-12-1e1-P-03) was issued under Criterion 1.e.1 – Equipment and Supplies to Support Operations, whereby some State and County emergency planning maps showed inconsistent boundaries separating Sub-Areas 1 and 3. A review of the maps in question revealed that the State map was in error, not the County map. Map corrections will be completed no later than February 28, 2013.

The Planning Issue identified for Lake County (47-12-6a1-P-04) was issued under 3.a.1 -Implementation of Emergency Worker Exposure Control, whereby the Lake County Emergency Management Agency Radiological Emergency Response Plan does not make clear the basis upon which 20 percent of the population will be monitored and whether sufficient portal monitors can be made available in a timely manner to complete monitoring in a timely manner (i.e., within 12 hours). This issue also applied to the Geauga and Ashtabula County plans and procedures. The County response to the planning issue indicates that one evacuee can be monitored every 15 seconds, assuming there are no delays. Potential delays are not considered, and the logistics for mobilizing additional portal monitors in a timely manner are not described in the plans and procedures. The Counties agree that it will be a challenge to complete monitoring in a timely manner using current procedures. In order to enhance their ability to handle both RERP-related monitoring and any all-hazards radiological monitoring that may be needed, additional portal monitors will be obtained. These monitors will be portable and available for use anywhere within any of the Ohio RERP Counties. Additional monitors will be made available in the most populated decontamination centers in order to efficiently process evacuees. These new monitors are scheduled to be in place in 2013. The applicable Standard Operating Guides (SOGs) in each County will then be updated prior to the next biennial exercise to reflect the availability of these new monitors and the logistics for making them operational in a timely manner.

The Planning Issue identified for Geauga County (47-12-3a1-P-05) was issued under Criterion 3.a.1, whereby Steps 2 and 3 of the Dosimetry Coordinator Guide (Personal Dosimetry) and the Dosimetry Report Form in Attachment 3 of the Geauga County SOGs, list different and potentially confusing turn back values for emergency workers inside and outside of the 10-mile EPZ Eliminating the 5R value on the Dosimetry Coordinator Guide and replacing it with a blank fill-in space will provide the flexibility needed for moving into the Intermediate and the Recovery Phases of an accident. The Dosimetry Coordinator Guide will be revised to incorporate this feature, and the revision will be implemented by the end of February 2013.

Additional information can be found in Section 3 of this report, entitled "Analysis of Capabilities."

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Based on the results of the Plume and Ingestion Pathway exercises conducted on October 2 and 3, 2012, the offsite radiological emergency response plans and preparedness for the State of Ohio and affected local jurisdictions, site-specific to the Perry Nuclear Power Plant, can be implemented and are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site.

Therefore, the Title 44 CFR, Part 350, approval of the offsite radiological emergency response plans and preparedness for the State of Ohio site-specific to the Perry Nuclear Power Plant, granted on June 17, 1994, remains in effect.

Copies of this Report were transmitted to the DHS/FEMA National Office, Nuclear Regulatory Commission (NRC) Headquarters' Document Control Desk and the State of Ohio.

If you have any questions, please contact William E. King, Chairman, Regional Assistance Committee, DHS/FEMA, Region V, at (312) 408-5575.

Sincerely,

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Andrew Velasquez III Regional Administrator

Enclosure (1)