

NUCLEAR REGULATORY COMMISSION

Docket No. PRM-50-85

[NRC-2007-0014]

Mr. Eric Epstein, Chairman, Three Mile Island Alert, Inc.

AGENCY: Nuclear Regulatory Commission.

ACTION: Petition for Rulemaking; Denial.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is denying a petition for rulemaking (PRM) submitted by Mr. Eric Epstein, Chairman of Three Mile Island Alert, Inc. (TMIA). The petitioner requested that the NRC amend its emergency preparedness regulations to require that all host school pick-up centers be located at least 5 to 10 miles beyond the radiation plume exposure boundary zone to ensure that all school children are protected in the event of a radiological emergency.

DATES: The docket for PRM-50-85 is closed on [insert Date of Publication].

ADDRESSES: Publicly available documents related to this petition, including public comments, the PRM, and the NRC's letter of denial to the petitioner, may be viewed electronically at <http://www.regulations.gov> (search Docket ID NRC-2007-0014) or on public computers in the NRC's Public Document Room (PDR), O-1-F21, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738. The PDR reproduction contractor will copy documents for a fee.

Publicly available documents created or received at the NRC after November 1, 1999, are also available electronically via the NRC's Electronic Reading Room at

<http://www.nrc.gov/reading-rm/adams.html>. From this Web site, the public can gain entry into the NRC's Agencywide Document Access and Management System (ADAMS), which provides text and image files of the NRC's public documents. If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the PDR reference staff by telephone at (800)387-4209 or (301)415-4737 or by e-mail at pdr.resource@nrc.gov.

FOR FURTHER INFORMATION CONTACT: Harry S. Tovmassian, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Telephone: (301)415-3092; e-mail Harry.Tovmassian@nrc.gov.

SUPPLEMENTARY INFORMATION:

The Petition

On April 11, 2007, the NRC received a PRM (ADAMS Accession No. ML071070475) from Mr. Eric Epstein, Chairman of TMIA. The NRC docketed the petition on April 17, 2007, and assigned it Docket No. PRM-50-85. The petitioner requested that the Commission amend its emergency preparedness regulations in Title 10, Part 50, "Domestic Licensing of Production and Utilization Facilities," of the *Code of Federal Regulations* (10 CFR Part 50) to require that all host school pick-up centers be located at least 5 to 10 miles beyond the radiation plume exposure boundary zone to properly ensure that all school children are protected in the event of a radiological emergency. The petitioner observed that this criterion applies to the general

population relocation centers and that the lack of such a criterion for host school pick-up centers is a “regulatory gap.”

The NRC notes that, as discussed herein, the Federal Emergency Management Agency (FEMA) distinguishes host school pick-up centers from general population relocation centers. Host school pick-up centers serve as temporary locations where school children can be held while they wait for their parents or guardians to pick them up, whereas general population relocation centers offer longer term assistance to people displaced from their homes. FEMA guidance provides for the location of host schools outside the plume exposure pathway emergency planning zone (EPZ), whereas joint NRC and FEMA guidance provides for the location of general population relocation centers at least 5 miles and preferably 10 miles beyond the boundaries of the EPZ.

Discussion

The Commission is responsible for licensing and regulating nuclear facilities as mandated by the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and other applicable statutes. These responsibilities include protecting public health and safety, protecting the environment, and protecting and safeguarding nuclear materials and nuclear power plants in the interest of national security. In June 1979, the Commission began formal reconsideration of the role of emergency planning in ensuring the continued protection of the public health and safety. This effort resulted in the issuance of emergency preparedness regulations published in the Federal Register on August 19, 1980 (45 FR 55402), and the development of onsite and offsite emergency plans within the EPZ of each nuclear power plant located in the U.S.

Although the NRC is the sole Federal agency responsible for licensing and regulating nuclear reactors, Federal oversight of radiological emergency planning and preparedness for nuclear facilities involves both FEMA and the NRC. Executive Order No.12148 – Federal Emergency Management, dated July 15, 1979, assigned FEMA the authority and responsibility to establish Federal regulations and policies and to coordinate civilian emergency planning within emergency preparedness programs. In December 1979, a Presidential Directive assigned FEMA the lead Federal responsibility for State and local emergency planning and preparedness activities with respect to jurisdictions near nuclear reactors, while assigning onsite emergency planning and preparedness oversight to the NRC. The NRC and FEMA entered into a memorandum of understanding (MOU) that delineated the agencies' roles in ensuring adequate emergency preparedness. Under the provisions of this MOU (Appendix A, "Memorandum of Understanding Between Federal Emergency Management Agency and Nuclear Regulatory Commission," to 44 CFR Part 353, "Fee for Services in Support, Review, and Approval of State and Local Government or Licensee Radiological Emergency Plans and Preparedness"), FEMA reviews State and local emergency plans and preparedness and approves them based upon its findings and determinations with respect to the adequacy of the State and local plans and the capabilities of State and local governments to effectively implement these plans and preparedness measures. Accordingly, FEMA is the lead authority concerning the direction, recommendations, and determinations regarding offsite State and local government radiological emergency planning efforts necessary for the public health and safety.

FEMA provides its findings and determinations on offsite preparedness to the NRC for use in its licensing processes. The NRC reviews these findings and determinations and, in conjunction with its assessment of the onsite preparedness and capabilities, determines

whether the overall state of emergency preparedness satisfies the requirements for the issuance of operating licenses for, or for the continued operation of, nuclear reactors.

In keeping with their respective statutory authorities, the NRC and FEMA issue and maintain regulations and regulatory guidance concerning emergency preparedness. The NRC and FEMA jointly developed broadly worded planning standards that onsite and offsite emergency plans would be required to meet in order to receive a favorable determination of preparedness. The respective agency regulations codified these planning standards (see 10 CFR 50.47(b) and 44 CFR 350.5(a)), and the NRC and FEMA provided supporting guidance in the agencies' jointly-prepared NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated November 30, 1980 (ML040420012), and addenda, dated March 31, 2001 (ML021050240). Each agency has further supplemented that guidance with guidance documents addressing emergency preparedness topics within its respective cognizance — the NRC with onsite topics and FEMA with offsite topics.

Public Comments

On July 10, 2007 (72 FR 37470), the NRC published a notice of receipt of PRM-50-85 and invited interested persons to submit their comments. The NRC received 14 comment letters in response. Comment letters came from five private citizens, three representatives from State government agencies, and six public advocacy organizations. Thirteen of the comment letters supported the petition while giving varying reasons for doing so.

Comments Supporting the Petition

The NRC received 13 comment letters supporting the petition. One commenter stated that the granting of the petition is in accordance with the recommendations of the U.S. Department of Homeland Security (DHS). Another individual expressed the opinion that the current regulations allow evacuees to be taken to centers just over the 10-mile evacuation line, which could possibly have “some very bizarre results, such as children being evacuated across a street or to a neighbor’s house,” and recommended that the NRC consider this “reasonable and well thought out petition.”

While supporting the petition, a State Representative from the Commonwealth of Pennsylvania reiterated the petitioner’s observation that there is an inconsistency in the treatment of host school pick-up centers and general population relocation centers. Although host school pick-up centers may be just outside the 10-mile radiation exposure boundary zone, the commenter noted that “general population relocation centers . . . , according to NRC and DHS/FEMA regulations, are required to be at least 5 miles and recommended to be at least 10 miles beyond” the EPZ.

A representative of a public advocacy group, Beyond Nuclear, supported the TMIA petition, but stated that the relocation centers are also designed to be “decontamination centers” and “reunification locations” and should be located at least “10 to 20 miles beyond the currently designated 50 mile radius of the ingestion pathway zone.” This commenter believes that the decontamination and reunification centers should be located at least 70 to 100 miles away from the reactor accident site.

A commenter representing Pilgrim Watch submitted two comment letters that differed only in the list of organizations and individuals cited as supporting the comments submitted. In addition to supporting the TMIA petition, the commenter cited several reasons for his opinion that NRC emergency planning regulations are not soundly based. The commenter believes that the 10-mile EPZ established by the NRC is arbitrary and that the NRC has relied on outdated and inappropriate radiation plume distribution models to justify emergency planning regulations and guidance regarding the placement of relocation centers.

The Environmental Coalition on Nuclear Power and the Sierra Club Pennsylvania Chapter endorse the TMIA petition but further comment that “the additional five to ten miles of protective distance would be inadequately protective for children.” These organizations cited the magnitude of potential releases, weather and travel conditions, time of day, and other factors as conditions that should be considered in siting the collection and relocation centers.

Comment Opposed to Granting the Petition

One commenter, representing the State of Tennessee, Tennessee Emergency Management Agency Program, opposed granting the petition. This commenter believes that it is not practical or wise to extend the distance for relocating children an additional 5 to 10 miles beyond the EPZ. He noted that the same buses will be needed for the evacuation during the general emergency and that greater distances of travel for school children increase the chance for a bus accident.

NRC Evaluation

The petitioner asserted that “according to the NRC regulations listed in NUREG-0654r1, general population relocation centers are required to be located at least 5 miles beyond the radiation plume exposure boundary zone” and that the absence of such a requirement for host school pick-up centers constitutes a “regulatory gap.” The NRC does not agree with the petitioner’s statement of concern. NUREG-0654/FEMA-REP-1, Rev. 1, does not contain NRC regulations or requirements. Regulatory Guide 1.101, Revision 4, “Emergency Planning and Preparedness for Nuclear Power Reactors,” issued July 2003 (ML032020276), identifies it as an acceptable method for showing compliance with the Commission’s emergency preparedness regulations. The NRC uses the methods described in this guide, including NUREG-0654/FEMA-REP-1, Rev. 1, to evaluate emergency plans for nuclear power reactors. As with all NRC regulatory guidance, compliance is not required and applicants or licensees may propose alternative methods of complying with the requirements. Similarly, the NRC recognizes that FEMA may find alternatives used by State and local governments to be acceptable means for meeting the planning standards and the evaluation criteria in NUREG-0654/FEMA-REP-1, Rev 1.

Section II.J of NUREG-0654/FEMA-REP-1, Rev. 1, provides evaluation criteria for the planning standard in 10 CFR 50.47(b)(10), which addresses protective measures for “emergency workers and the public.” Although the NRC has not defined “public,” it is generally understood that it includes all segments of the population including school children. Section II.J.10 requires that an organization’s plan to implement protective measures may include various capabilities and resources. Evaluation Criterion II.J.10.h in

NUREG-0654/FEMA-REP-1, Rev 1, provides for the establishment of relocation centers (also known as “reception centers”) where evacuees are monitored, decontaminated (if necessary), and registered. Evaluation Criterion II.J.10.h provides that these facilities should be located at least 5 miles and preferably 10 miles beyond the boundaries of the EPZ. The NRC notes that, in the absence of exclusionary modifiers, this criterion applies to relocation centers for all segments of the population including school children. Furthermore, FEMA Guidance Memorandum EV-2, “Protective Actions for School Children,” provides for temporary sheltering *outside the EPZ* in host schools (or “host school pick-up centers” or “evacuation centers”) with no further stipulation regarding distance beyond the EPZ.

The NRC intentionally used broad language in the planning standards of 10 CFR 50.47(b) because they apply to applicants, licensees, State governments, and local governments. The planning standards do not contain prescriptive requirements but instead give the organizations the flexibility to develop plans and procedures that best fit their specific needs and the needs of the affected public that they are charged with protecting. The NRC and FEMA believe that numeric criteria, such as the minimum distance to a relocation center, properly belong in regulatory guidance. Because the existing regulatory structure already has minimum distance criteria for relocation centers for all segments of the population, including school children, no revision to 10 CFR Part 50 is necessary in response to the petitioner’s request.

In accordance with the NRC and FEMA MOU (44 CFR Part 353), the NRC forwarded a copy of this petition to, and has discussed the petitioner’s request with, FEMA. Subsequently, in a May 14, 2008, letter to Mr. Anthony C. McMurtray (NRC) (ML081570134); Ms. Vanessa E. Quinn (FEMA) stated that the Commonwealth of Pennsylvania’s current practice of designating host schools for temporary sheltering of school children at locations outside the EPZ conforms

with existing FEMA guidance. The FEMA letter clarifies that host schools are pre-designated sites outside the EPZ specifically designed to receive and provide *temporary* shelter to evacuated students outside the EPZ until their parents or guardians regain custody of them. Host schools are generally located in the same school district as the primary school to make it easy for parents or guardians to pick up their students. If a parent or guardian has not picked up his or her student, the student is then transported to a relocation center for longer term protection and care. As such, these designated sites do not serve as *relocation centers* as identified in Evaluation Criterion II.J.10.h and, therefore, do not need to meet the siting criteria that apply to a relocation center.

The NRC observes that the schools specifically identified in the petition are all located in the West Shore School District. Based upon information provided to the community in the 2008-2009 West Shore School District Handbook (ML08289047), the NRC has determined that the district encompasses communities and schools within and outside of the EPZ. The West Shore District planning designates four West Shore District schools, all located outside the EPZ, as *evacuation centers*. Students at these four schools that reside within the EPZ would remain there until their parents or guardians pick them up. For two of the four schools, students who reside outside the EPZ would be sent home when buses were available provided that it was safe to do so. Students at other West Shore District schools located within the EPZ would be evacuated to one of the four designated evacuation centers to wait for their parents or guardians to pick them up. In its May 14, 2008, letter, FEMA stated that the Commonwealth of Pennsylvania's current practice of designating host schools for temporary sheltering of school children at locations *outside the EPZ* conforms with existing FEMA guidance.

The emergency planning basis provided in NUREG-0654/FEMA-REP-1, Rev. 1, summarizes the considerations that went into the establishment of the 10-mile EPZ. This basis provides that it would be unlikely that any protective action would be required beyond the EPZ and that the detailed planning for the EPZ would provide a substantial base for expansion of response efforts in the event of a highly unlikely worse case accident. The location of the relocation center that is stipulated in Evaluation Criterion II.J.10.h is generally based on avoiding the need to evacuate a relocation center in the unlikely event that it became necessary to expand protective actions beyond 10 miles. Host schools are not similarly affected because they are only a temporary arrangement until parents or guardians pick up their students. As such, the petitioner's request to apply the numeric criteria of Evaluation Criterion II.J.10.h to host schools that are used solely as evacuation pick-up sites is unwarranted.

The petitioner asserted that host schools that are located close to the EPZ do not provide the same level of protection as would facilities that are located further beyond the EPZ. Although the NRC agrees that radiation exposure decreases with increasing distance, the impact of the exposure on the persons exposed to the radiation is also a function of the duration of the exposure. As indicated in the May 14, 2008, FEMA letter, host school pick-up centers are only pick up points, and any students whose parents or guardians have not picked them up would be transported to a reception center. Thus, the duration of the students' stay at a host school is expected to be short, after which their parents or guardians would evacuate them further to the relocation center or to other individually arranged locations (*e.g.*, residences of friends, hotels). The NRC notes that these host schools are located in residential communities outside of the EPZ. According to NUREG-0654/FEMA-REP-1, Rev. 1, protective actions would not likely be required beyond the EPZ. Thus, students in these host schools would be afforded the same level of protection as that of the other residents in that community. As noted on the

Pennsylvania Emergency Management Agency's website at <http://www.pema.state.pa.us/pema/cwp/view.asp?A=566&Q=254894>, school children are usually relocated before the evacuation of the general public as a precautionary measure, which further increases the likelihood that parents or guardians will have picked up their school children before the onset of a radioactive release.

Based upon this evaluation of the petitioner's request and in consultation with FEMA, the NRC has found no sufficient basis to question the adequacy of FEMA guidance and findings regarding the adequacy of the protective action arrangements for school children. This finding, in conjunction with the finding that the existing regulations and regulatory guidance are adequate, is the basis for the Commission's decision to deny the petitioner's request.

Consistent with the reasons provided above for denying the petition, the NRC finds that the commenters do not present evidence to compel the NRC to consider seeking changes to the existing regulatory structure. In addition, commenters raised two issues that concern the size of the EPZ and the distance of the host schools from the EPZ that is required to provide adequate safety to school children. The NRC notes that although these issues exceed the scope of the petition, the existing regulations and guidance provide reasonable assurance of adequate protection for all members of the public in the event of a radiological incident at a nuclear power plant.

One commenter stated, without providing specific examples, that "many host pick-up schools are located within [the EPZ]." The petition does not make this claim and includes information from the West Shore School District explaining that all of the host school pick-up centers "are outside the ten[-]mile zone from TMI [Three Mile Island]."

Another commenter identified an implementation issue that may be encountered in the event that host school pick-up centers are sited an additional distance beyond the EPZ. Because FEMA reviews the adequacy of offsite emergency plans and preparedness and the capabilities of State and local governments to effectively implement these plans and preparedness measures and because the NRC reviews FEMA findings and determinations, the current regulatory structure already addresses the issue highlighted by the commenter.

Reason for Denial

The Commission is denying PRM-50-85 submitted by Mr. Epstein of TMIA. Current NRC regulations and NRC and FEMA regulatory guidance provide reasonable assurance of adequate protection of all members of the public, including school children, in the event of a nuclear power plant incident. Because it is prescriptive in nature and existing regulations and guidance already cover the petitioner's request, PRM-50-85 is hereby denied.

Dated at Rockville, Maryland, this _____ day of _____, 2008.

For the Nuclear Regulatory Commission.

Annette Vietti-Cook,
Secretary of the Commission.

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Dated at Rockville, Maryland, this _____ day of _____, 2008.

For the Nuclear Regulatory Commission.

Annette Vietti-Cook,
Secretary of the Commission.

EDATS: NRR-2008-0025

ADAMS ACCESSION NO.: ML082470078(Package); ML082470087(FRN) *via e-mail **via memo

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