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Submitted for the NRC Meeting of November 1, 2010 on Changes to Emergency Plans for Nuclear Power Reactors

Comments regarding``Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors," Interim Staff Guidance (ISG) NSIR/DPR-ISG-01, ``Emergency Planning for Nuclear Power Plants," and NUREG/CR 7002, ``Criteria for Development of Evacuation Time Estimate Studies."

IV.B.3 Updating of Evacuation Time Estimates
Although we agree it is good practice to update ETE when the population has increased by 10% or more, the updating of ETE does not provide for standards by which an increase of populations either 10%, 20%, 30% ore more will continue to meet ETE standards to protect public health.
It is unreasonable for the NRC to allow continued operation of nuclear facilities even though the population density surrounding the plant are significantly increased beyond acceptable citing criteria.

Locating reactors away from densely populated centers is part of the NRC's defense-in-depth philosophy and facilitates emergency planning preparedness as well as reducing potential doses and property damage in the event of a severe accident. 10 CFR Part 100, "Reactor Site Criteria," requires the following:
An "exclusion area" surrounding the reactor in which the reactor licensee has the authority to determine all activities, including exclusion or removal of personnel and property, and a "low population zone" (LPZ), which immediately surrounds the exclusion area.

The nearest distance to the boundary of a densely populated center

containing more than about 25,000 residents must be at least one and one-third times the distance from the reactor to the outer boundary of the LPZ.
Reactor sites should be located away from very densely populated centers. Areas of low population density are, generally, preferred. However, in determining the acceptability of a particular site located away from a very densely populated center but not in an area of low density, consideration will be given to safety, environmental, economic, or other factors, which may result in the site being found acceptable.

Public health and safety cannot be grandfathered in. Stakeholders assert that the NRC must apply all citing criteria throughout the life of the facility. Therefore if the population surrounding a plant increases by 10% or more the licensee must have a limited license or the license must be revoked.
The population density within the 50 mile Ingestion Pathway EPZ of Indian Point is over 21 million, the population within in the 10 mile plume exposure pathway EPZ exceeds 500,000. Indian Point is surrounded by one of the most densely populated areas in the United States; 21 million people live within 50 miles of Indian Point. Based on 10 CFR Part 100" Reactor Site Criteria" Indian Point could not be cited where is it located today in Westchester County. Therefore it is irresponsible and a violation of Homeland Security for the NRC to allow continued operation and license Indian Point for nuclear energy production.
Population density increases directly affect the ability to evacuate the communities surrounding Indian Point. At the time the plants were first site, the area was primarily farmland. The operators of the plant had the ability to mitigate the rapidly increasing population surrounding the plant, by purchasing the necessary acreage in order to maintain the require LPZ.
The combination of increased populations around a nuclear facility and the unplanned, increase and permanent storage of high level radioactive waste on site creates a dangerous situation which endangers homeland security. At Indian Point the 3,000,000 pounds of high level nuclear waste are being place into an Independent Spent Fuel Storage Installation Facility (ISFSI) which is not even bolted to the ground.

IV.C The suggested guidance regarding the site specific spectrum of accidents and job/task analysis only can be useful if plants FSAR are current and all exemptions, relaxations, and reductions in fire safety and other safety standards are completely tracked and known by staff. Currently the Indian Point exemptions, relaxations, and reductions which have been granted over the years are not known by staff or plant operators, and cannot be simply identified in ADAMS. Therefore it is impossible for a meaningful job/task analysis to be accomplished in order to evaluate levels necessary to cope with the spectrum of DBA and DBT accidents. It is true that the NRC does not have a definition for "adequate" or "reasonable", yet many standards, including the suggested guidance are being based on "adequate" and "reasonable" standards.
To insure that meaningful guidance is enacted the NRC must clearly define, in a non-circular definition both "adequate protection" and "reasonable assurance".

IV D. Alternative Facility
The reliance on an off-site facility linked with computer technology raises the concern regarding the ease at which hackers have been able to corrupt or block communication. Unless it can be proven that all parts of the communication system are made within the United States, and that the communication is 100% secure it may be impossible to protect a nuclear facility with off-site computer facility that can remotely operate emergency centers.

Local Emergency personnel
Page 18-19 Additionally in many communities, including those surrounding Indian Point, much of the emergency personnel relied upon in the communities are volunteers. Relying on volunteers at a nuclear facility for emergency situations is problematic. It should be required that the operator employ all emergency workers necessary to for secure emergency operations.
The Mutual Aid Agreements and MOU are often meaningless. For example Entergy still relies on bus companies to supply buses to transport school children in the event of an emergency based on MOU's with prior owners of the plant, ConEd. Con Ed had agreed to supply drivers in the event of an emergency. No such drivers exist today, and school bus drivers cannot be guaranteed to drive buses into a radioactively contaminated zone in the event of release.

Drills

Certainly without annual drills reliance on volunteer workers and bus drivers cannot be counted upon by the NRC as adequate protection giving reasonable assurance to the public.

Annual actual drills of portions of the EPZ should be required in order for emergency plans to be meaningful. Professional emergency planners agree that actual drills are the only way to insure preparedness. That is why fire drills are regularly performed in school and office buildings. By using table top drills, of which most of the public is unaware, the NRC is not providing for functional preparedness and is leaving the public unprepared and unprotected.

The NRC staff's acceptance of NEI 06-04 for Evaluation Criterion N.1.a. without a drill including off-site release of radiation is meaningless and does indicate a functional response that can be relied upon by the plant or community.

Sirens

The decibel levels of new sirens which have been installed in the EPZ surrounding Indian Point are significantly too low to be heard indoors or even inside cars, and are therefore useless. Although many residents in our region have complained of the ineffective new siren system the NRC and FEMA have approved it.

Sheltering in Place

The idea suggested of keyhole alerting on page 47 disenfranchises the population from protecting itself. Sheltering in Place is a totally unacceptable method of protecting the public.

The NEI's recommendations that all or part of the surrounding population be sheltered-in-place exposes individuals to potentially more than 25 rem of radiation and does not adequately protect the public. The vast majority of home and buildings are wood frame and only provide less than 40% protection from airborne radioactive contamination.

FEMA recognized this concern in their February 21, 2003 report on emergency preparedness at Indian Point. On page 6 of Attachment B of the report, FEMA states:

NUREG -0654, Appendix 1 issued in 1983 and enhanced in 1996, in the NRC Supplement 3 to NUREG-0654.FEMA-REP1 "Criteria for Protective Action

Recommendations for Severe Accidents. States that, "Since the publication of the original guidance extensive studies of severe reactor accidents have been performed. These studies clearly indicate that for all but a very limited set of conditions, prompt evacuation of the area near the plant is much more effective in reducing the risk of early health effects than sheltering the population in the event of severe accidents. In addition, studies have shown that except for very limited conditions evacuation in a plume is still more effective in reducing health risks than prolonged sheltering near the plant. The NRC and FEMA recommend that the population near the
plant should be evacuated."

Therefore based on Entergy's own recent traffic study and the inadequacy of sheltering in place there can be no reasonable assurance that public health and safety will be protected during an additional 20 years of operation, which is in direct contradiction with the NRC and FEMA regulations. Schools, reception centers, and hospitals are not equipped with food, medicine, water, decontamination equipment, and basic supplies necessary for even short term sheltering.

Local and State Certification of Emergency Plans•

Local elected officials and New York State authorities have refused to certify these unworkable emergency plans for since 2002. The adequacy of the Emergency Plans must be required before continued operation of a facility is allowed or a new license can be approved.
If the local and state authorities do not certify the evacuation plans as workable then FEMA and the NRC are negligent in approving them as functional and workable evacuation emergency plans.

"For operating power reactors, 10 CFR 50.54(s)(2)(ii) requires that "If
... the NRC finds that the state of emergency preparedness does not
provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency ... the Commission will determine whether the reactor shall be shut down until such deficiencies are remedied or whether other enforcement action is appropriate."

Adequate Emergency Plan is a requirement and an important part of the issuance of a nuclear plant operating license. as per § 50.47, "Emergency Plans," of 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," paragraph (a)(1) which states no operating license for a nuclear power reactor :
“will be issued unless a finding is made by the NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.” If the circumstances under which the license was originally issued have changed to make it unsafe to operate it is negligent for the NRC to allow continued operation and it is negligent for the NRC to approve a new superseding license for an additional 20 years if the criteria for a new license are not met.

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