Entergy

August 28, 2003

The Honorable George E. Pataki
Governor of the State of New York
Executive Chamber
The Capitol
Albany, NY 12224

Dear Governor Pataki:

I am writing to you in response to Assemblyman Richard Brodsky's letter to you of July 2, 2003, regarding the Evacuation and Emergency Plans for the Indian Point Energy Center.

The Assembly Committee on Corporations, Authorities, and Commissions recently issued a report titled *Comparison of the Evacuation Time Estimates for the Indian Point Nuclear Generating Facility: 1994 versus 2003*, dated July2, 2003. The conclusion of the Committee's report was that the revised and updated Evacuation Time Estimate (ETE) study for the Indian Point Energy Center is inadequate to protect public health and safety. Regrettably, this report is not an accurate interpretation of the (ETE) study and does not reflect expert opinion on evacuation analysis or traffic management.

Entergy has invested over $ 4 million dollars in the past two years to improve the emergency response infrastructure, quality of training and public information and outreach. An updated Evacuation Time Estimate was recently released titled *Indian Point Energy Center Development of Evacuation Time Estimates.* This study was prepared by KLD Associates, Inc., an internationally recognized leader in the development of computer simulation models for use in traffic, transit and transportation planning activities. This study included the concept of shadow evacuation, and is one of the most comprehensive in the United States. Additional information on the qualifications and experience of KLD Associates, Inc. can be found online at http://www.kldassociates.com.

Entergy, with assistance from KLD Associates, Inc., reviewed the Corporations Committee report. In short, a multitude of flaws were identified, including errors in fact,

b-3

misquotes, erroneous assertions and definitions, and selective omissions of the Evacuation Time Estimate study text, which resulted in their unsupported conclusions and alleged deficiencies. Attached is a summary document, which provides a sample of what we consider to be the deficiencies in the report, and a brief explanation as to why the report's conclusions lack credibility.

On July 25, 2003, after much deliberation, FEMA announced its determination that the emergency plans for the area around the Indian Point nuclear power plants are adequate to protect the public health and safety. The Nuclear Regulatory Commission then found that Indian Point emergency preparedness provides reasonable assurance of adequate protection in a nuclear emergency.

There is overwhelming evidence from comprehensive assessments, and evaluations by experts in emergency preparedness, that emergency plans for Indian Point adequately protect the public health and safety. We strongly believe that emergency planning must remain separate from unscientific speculative concerns, political aspirations and fear mongering of those who would like to shut down the Indian Point plants.

Entergy will continue working with Federal, State, County, and local officials to improve the emergency plans for Indian Point so that they will be a model for the nation. To that end, we have a partnership with Rudolph Giuliani and his firm to provide expert advice and resources in emergency planning and security. We will continue the pursuit of excellence with all of our partners to address the safety concerns of the public in implementing effective emergency plans.

Sincerely,

James Knubel
Vice President, Operations

Attachment

cc: SEMO, Edward Jacoby, Jr., Director
SEMO, Andrew Feeney, Deputy Director
NRC, Hubert J. Miller, Regional Administrator
NRC, Robert J. Bores, State Liaison Officer
FEMA, Joseph F. Picciano, Acting Regional Director
FEMA, Michael Beeman, Public Information Officer

ATTACHMENT

Summary Response to Corporations Committee Report Assertions Regarding the Updated Evacuation Time Estimate Study for the Indian Point Energy Center Emergency Planning Zone

1. Issue: The 2003 Evacuation Time Estimate (ETE) study shows a 50 % increase in the time to evacuate the entire Emergency Planning Zone(EPZ).

   Response: Although the latest study shows a 50% increase in the evacuation time estimate for the entire EPZ, it is not expected that all of the 305,000 people in this 10-mile zone will need to be evacuated. In a major release, everyone within a two-mile radius would be evacuated, with a more limited evacuation of people in the down-wind corridor. It is expected that most of the people within the Emergency Planning Zone who are not within the down-wind corridors will be advised to shelter in place.

   There is no time limit for evacuation. Evacuation time estimates are merely tools that are used in the process of making a protective action decision, to recommend evacuation and/or sheltering.

2. Issue: Technological advances in communications such as the use of cell phones are not addressed.

   Response: The use of cell phones is addressed briefly in the ETE study. Specifically, the use of cell phones by evacuees to report traffic conditions due to disabled vehicles or other blockages is anticipated in the ETE report. While not mentioned elsewhere in the ETE, the use of cell phones has the potential to improve and expedite the mobilization process. However, moderate changes in mobilization time would have no material effect on the evacuation time estimate for Indian Point, since the ETE primarily reflects the constraints of highway capacity within the EPZ. The Committee report makes no "claims" relative to cell phones.

3. Issue: Arbitrary and inadequate use of shadow evacuation.

   Response: The Committee offers no specifics as to the factors that make the selected shadow region "arbitrary and inadequate." Consistent with the guidelines from the Nuclear Regulatory Commission (NRC), the ETE study considers a shadow region solely to quantify the impact if trips initiated within that region impede the movement of evacuees from within the EPZ. These NRC guidelines are silent on the subject of shadow evacuation and focus exclusively on the evacuation of the population from within the EPZ. The selected shadow evacuation region was based on an assessment that any movement of traffic beyond the interstate highways that form the boundary of this region would not materially influence the time to evacuate the population from within the EPZ.

While travel time outside the EPZ is certainly important to those involved, such travel does not expose them to any significant radiological releases.

4. Issue: Limited analysis of shadow evacuation finds that, among other things, it would take 11 hours to evacuate the entire region surrounding Indian Point.

   Response: The Committee report is mistaken in this statement. Using the assumption of 30 % evacuation applied to the population within the shadow region outside the EPZ, the ETE report shows that the evacuation time for the population within the EPZ and within the shadow region surrounding the EPZ is 9 hours and 45 minutes -- not 11 hours. This estimate of 30% is based upon a review of evacuation behavior elsewhere; the source of this estimate is Dr. Dennis Mileti of the University of Colorado, a nationally recognized expert in human behavior in emergency events. For example, in a study of Hurricane Floyd by the Kennedy School of Harvard University, it was stated that the shadow evacuation was on the order of 22% to 23% of the population beyond the area advised to evacuate.

   The ETE study shows that if this percentage of 30% of those within the shadow region electing to evacuate were raised to 60%, the ETE for those evacuating from within the EPZ would rise to 10:00 hours and for those within the EPZ plus those within the shadow region, combined, would rise to 11:30.

5. Issue: Omission of major sections in the report such as the Traffic Management Strategy and descriptions of roadways.

   Response: The authors of the ETE study agreed with the Counties to withhold publication of the Traffic Management Strategy pending its review by county and local officials, primarily law enforcement. Calculation of evacuation times is based upon the premise that effective traffic management strategy is in place after the advisory to evacuate is announced. The proposed traffic management strategy is currently under review by the various police departments within the four counties.

   Additionally, Appendix K of the 2003 ETE consists of more than 50 pages of detailed tabular description of each and every roadway link in the evacuation network.

6. Issue: The Plan needs to consider family separation.

   Response: Family separation is specifically addressed in the 2003 Evacuation Time Estimate. One assumption is that parents with access to vehicles will pick up their children from school, affecting at least half of all school children. The telephone survey revealed that 60% of households would have access to private vehicles in the event the emergency occurred while schools were in session. Discussions held in other areas with parents indicated that all would hasten to

school to gather their children if they had a car available. It is seen that the 50% estimate, while anecdotal, it is consistent with the cited results of the telephone survey. Another assumption, based on results of a telephone survey of 1,000 households, is that about 60 % of families would await the return of commuters before evacuating.

7. Issue: The population increased by 10%.

   Response: This is accurate and properly factored into the estimates.

8. Issue: There was a 300% increase of people commuting daily into the EPZ.

   Response: This is accurate and was properly factored into the estimates.

9. Issue: There are issues with respect to population movement and mobility, as well as information secrecy.

   Response: This issue was previously raised before FEMA and was rejected. FEMA concluded as follows:

   > It is true that one of the early actions that might be taken for the school population is a precautionary transfer of the students to an appropriate host facility. It should be noted that this is not an evacuation as generally understood and it does not imply that there is a need to evacuate or shelter the general population. The action is often taken to free up resources that are needed for a general public evacuation if one becomes necessary. The State and local officials have, for a considerable time, resisted the activation of the Alert and Notification system for precautionary actions.

10. Issue: The evacuation notification does not discuss the effects of language barriers.

    Response: The impact of language barriers is addressed in public education and information carried out by the Counties. Brochures are issued in various languages. The Evacuation Time Estimate study assumes the Counties are effectively addressing this issue and that it will not influence the mobilization time materially. For those relatively few people whose language barriers lie outside the languages addressed by the counties, it is reasonable to expect that their social contacts would enable them to respond to the emergency condition within a reasonable time frame. Even if there is a moderate increase in mobilization time for these people due to their language barriers, its impact on evacuation time would not be material.

11. Issue: The use of other types of transportation for evacuating the population, e.g. trains, are not considered.

Response: The use of trains for evacuation was evaluated and determined not to be an attractive option. Westchester County emergency management personnel concurred with this conclusion. There is no provision in the Westchester County plan to employ trains within the EPZ to evacuate people.

12. **Issue**: Terrorist attacks.

Response: The Committee report asserts, without any factual basis, that a terrorist caused release would have significantly different characteristics and effects than those anticipated by the ETE study. The assumption is that a terrorist-induced radiological release would occur faster than the emergency response organizations' ability to react to accident conditions. Contrary to this assertion, the ETE does address emergency response for a rapid radiological release. Furthermore, the Evacuation Time Estimate assumes mobilization response begins immediately after the Advisory to Evacuate has been announced.

13. **Issue**: Spent Fuel Pool Releases

Response: The Committee report asserts that terrorist action against the spent fuel pool storage facility could result in a catastrophic failure of the containment system. The sole source cited to support this assertion is a Nuclear Regulatory Commission (NRC) Staff Technical Study of Spent Fuel Pool accidents, a study that does not address operating nuclear plants and finds the risk to be very low (on the order of one in a billion per year). Regardless of whether or not there is an elevated risk to fuel pools the radiological emergency plans are capable of responding because they are symptom based, not event based. The NRC Staff evaluated, and rejected a similar claim. The Staff determined that the design of the spent fuel pools at Indian Point and the ease with which compensatory measures can be taken in the event of loss of water level in the pools minimized the likelihood of a terrorist attack causing any offsite radiation release. The claim that a terrorist attack on an Indian Point spent fuel pools would result in serious radiological consequences is erroneous and unsupported by any credible analysis.