

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Commissioners:

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In the Matter of
CONSOLIDATED EDISON COMPANY
OF NEW YORK (Indian Point 2)

POWER AUTHORITY OF THE STATE
OF NEW YORK (Indian Point 3)

Docket Nos. 50-247
50-286

May 23, 1983

SUBMISSION BY PARENTS CONCERNED ABOUT INDIAN POINT
TO THE UNITED STATES NUCLEAR REGULATORY COMMISSION
REGARDING NRC ORDER CLI-83-11, MAY 5, 1983

INTRODUCTION

Members of Parents Concerned About Indian Point and their children, most of whom live within 10 miles of Indian Point, will be required to implement any evacuation plans in case of an accident at the nuclear reactors in Westchester County, New York. Members of Parents have been and continue to be uniquely qualified to elicit information from local officials, administrators, emergency personnel, doctors, teachers and parents regarding their knowledge of the plans, their responsibilities under the plan, and their ability to implement the plan.

We have been able to uncover and point out special problems and situations within the Emergency Planning Zone (EPZ) which might adversely affect implementation of the emergency

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response plans. For these reasons, on November 5, 1981, Parents Concerned About Indian Point filed a "Petition for Leave to Intervene" in the adjudicatory hearings initiated by the Commission in its Memorandum and Order of January 8, 1981, as amended on September 18, 1981, pursuant to NRC rules of practice at 10 CFR 2.714.

Since the Commission has determined that a well designed and properly implemented emergency plan is necessary to minimize or alleviate the potentially disastrous effects of a radiation release, and since those living around Indian Point stand to lose life, good health and property if defective safety conditions result in a serious nuclear accident at Indian Point, members of Parents Concerned About Indian Point have a vital interest in Commission Questions 3 and 4 as set forth in the Memorandum and Order of January 8, 1981.

The first concern of Parents Concerned About Indian Point is our children and the future generations of life on earth. Members of Parents are not experts in health physics, but we are aware of a large body of information which exists as evidence of the fact that there is no safe "threshold" of radiation exposure, and that children and fetuses are far more susceptible to the effects of radiation than adults. We are extremely concerned about the effects of radiation on the well-being of our children and their unborn sisters and brothers.

We are aware that radiation is released into the environment at every stage of the nuclear fuel cycle through normal plant operations to waste transport and disposal, and we are further aware that the risk of adverse health effects from

radiation is dominated by a loss-of-coolant, breach of containment accident, as compared with normal operations of nuclear power plants. We agree with Dr. Daryl Bohning, a biophysicist from Westchester County who testified on our behalf during the Indian Point safety investigation when he said, "No matter how much effort and money is put into trying to contain the hundreds of billions of Curies in the Indian Point and other power plants, we are constantly reminded of its presence and its dangers, by daily routine emissions and by accidental leaks and unmonitored pathways...The people in the power industry are only human, and things get fouled up just as much in their industry as it does in any other. In my opinion we would be wise to devote our talents and resources to developing ways of operating society that don't depend on trying to bottle up 50-100 billion Curies of radioactivity twenty-five miles from one of the great population centers of the world."

The actual health effects of the relatively minor release of radiation at Three Mile Island are not known, but Parents Concerned About Indian Point are aware of data that suggests a higher rate of neonatal death and stillbirth in Harrisburg, Pennsylvania, in the few months just after the accident.

Parents is also aware that the Rogovin and Kemeny Commission reports each concluded that inadequate emergency planning was a contributory factor in the confusion which attended the accident at TMI.

Given these facts, Parents Concerned About Indian Point considers it an absolute, bottom line requirement that

emergency planning for the vicinity of Indian Point be extremely well-developed and detailed, with a special emphasis on careful planning for the health and safety of children in the area. Unfortunately, our experience has been that the needs of children as well as other transportation-dependent populations surrounding Indian Point have been ignored by emergency planners, and that these special needs would go completely unaddressed except for the vigilant insistence of groups such as Parents representing the interests of all in the affected area who care for children and are concerned with their well-being.

SCHOOL PLANNING

The history of radiological emergency response planning for a school in session scenario is a prime example of the carelessness which has characterized planning as it affects children. The plan prepared by Parsons, Brinckerhoff, Quade and Douglas and submitted in January, 1981, provided that children in school would be bused out of the 10 mile EPZ to reception centers outside the 10 mile zone. This plan was submitted without the knowledge or approval of the school officials involved, and certainly before parents had been notified of the proposed procedures. This lack of input by the people directly affected was evident in many unrealistic expectations included in the plan. Some of the inadequacies in the plan were pointed out by parents, teachers, and school officials:

No attempts have been made to determine whether or not a voluntary emergency work force would be available for driving and supervising school children, and until provisions for voluntary service are made, school districts cannot state that a feasible plan is in place for safe-guarding the interests of our children.

School reception centers were not contacted in advance to make arrangements for their use as such, and in most instances administrators were not aware that they had been so designated until informed by concerned parents and staff. There has been little or no information disseminated to staff and parents of children at receiving schools concerning their role in a nuclear emergency response. Research for the Parsons, Brinckerhoff plan was so poor that several schools which had been closed and/or sold were included as reception centers. Emergency planning brochures were sent to households in spring of 1982 directing evacuees to these buildings, at least one of which was rented to a day care center caring for 400 pre-school children of working parents.

Evacuating parents and children separately in the face of threatening disasters confronts children with an overwhelming sense of loss. Without the presence of a parent to help a child cope, the child will feel a sense of panic, fear of permanent loss and disappointment that the parents have let him or her down at such a crucial time. A plan that does not incorporate the need for children and their parents to be evacuated together is unrealistic, psychologically unsound, and carries the great potential for damaging the child and his or her relationship to the parents and other important adults.

Even in the face of massive opposition from all sectors of the affected school population in Westchester County, emergency planners did not undertake a systematic review and revision of the plans with participation of teachers, parents, and administrators based on a survey of the attitudes and knowledge of the residents of the area. Rather, in early 1983, Westchester County Executive Andrew P. O'Rourke announced via a news conference that Westchester County policy would be to advise schools within the EPZ to send school children home early rather than to reception centers in case of a radiological emergency at Indian Point. At present the school plan is in chaos.

School districts have early dismissal plans as part of their normal operations. However, of the 8 school districts

within the 10 mile EPZ in Westchester County, 5 have not used emergency early dismissal procedures within the last 5 years. As one superintendent said, "We believe the children are safer in school than out on the slippery roads in bad weather. We give the town a chance to clear the roads and send the children home at regular school closing time." The children will be even less safe outside during an accident at Indian Point than during a snow storm! Snowstorms are not events which trigger in parents a response of terror and urge to flight. Quite the contrary: most parents would not be alarmed at the idea of their children playing outside during a snowstorm in the suburbs, or taking refuge at the home of friends. Emergency dismissal plans are required in case of a malfunction of equipment at the school itself, for example a leaky roof or a boiler failure. In such cases, which are very rare, only one school building is involved, and sending the children home removes them from the area of danger or discomfort. The circumstances would be altogether different during an accident at Indian Point with a potential or actual offsite release of radiation. In that case, 28,500 school children would be involved in Westchester County alone, and school officials might be sending children into unsupervised, possibly locked, homes and right into the danger.

In all 8 school districts, some children normally walk to and from school. In at least 2 districts over 50% are walkers. In all districts the drivers make 2 or 3 trips to transport the school children in their charge. Parents Concerned About Indian Point insist that very clear procedures be worked

out to assure that NO CHILDREN are walking home during an accident involving a potential release of radiation. This is especially important since many parents in the affected area have severe doubts about the Licensees' ability to recognize and respond immediately to conditions which signify the onset of an accident.

Even if early dismissal procedures are begun during the "alert" stage (which has not been clearly articulated to parents), extra buses would be required to transport the walkers. The definition of an "alert" stage involves a potential offsite dose of up to 1 Rem to the whole body or 5 Rem to the thyroid. School officials have informed Parents Concerned About Indian Point that it takes about 3 hours from the time the decision is made to dismiss school early until the children reach home. During this time the emergency could progress to a state where greater potential offsite releases occur or are projected.

Because emergency early dismissal is such a drastic and infrequently used option, our "school handbooks" do not contain information on the early dismissal practices and policies of the school districts. Each district has a different plan. For example, one district will call only parents of elementary children and parents of middle school students who request to be notified. To date no school district has sent so much as a letter to parents advising us of what they would do with our children in case an emergency at Indian Point occurs during school hours. We still have the emergency planning booklets distributed in 1982 reassuring us that our children will be taken out of the area on buses to reception centers outside the emergency zone.

To the few parents who inquire directly, school officials respond that parents would be notified of early dismissal due to a radiological emergency at Indian Point by the PTA/class mother telephone chain. Those of us who have agreed to participate in the phone chain were not informed that our duties would include being the prompt notification system for the Indian Point Licensees. The experience of parents of school children is that the efficiency of the class mother phone chain varies greatly from class to class. Under the conditions of a radiological emergency it is unreasonable to expect that each mother will continue calling until she makes arrangements for each of the 5-10 families that have been assigned to her to call. Considering the volume of calls required to locate a responsible adult for 28,500 school children in Westchester County, it is reasonable to expect that telephone lines will be busy. The few mothers who are at home will be too busy making their own emergency preparations to persist in making calls. The addition of school closing calls to the telephone system at the beginning of a radiological emergency at Indian Point will certainly affect the notification and mobilization of emergency workers, which must be done almost exclusively by phone.

TRANSPORTATION COMPONENT

The Westchester County Department of Transportation has been severely critical of the plan developed by Parsons-Brinckerhoff and has pointed out particular defects which render the transportation component unworkable. Although the Licensees' transportation consultants assured bus personnel that all designated roads were negotiable by bus, the actual experience of drivers during the March, 1982, exercise revealed places where a bus could not maneuver, dead end roads, a direction to go the

wrong way on a one-way street, and at one point not much more than a footpath next to a pond. Furthermore, the route maps developed by the Licensees' consultants were in many cases incorrect, incomplete, and hard to follow. During the 1983 exercise, all 5 bus routes in Westchester County were pre-selected, which obviously minimized the possibility that drivers would encounter any surprises or difficulties. Even so, the FEMA Post Exercise Assessment reports on p. 30 regarding Westchester County bus evacuation simulation: "Despite the guidance that was given prior to the exercise, it was evident that additional training is necessary to insure that the bus dispatchers and drivers are properly acquainted with the evacuation procedures, the routes they should follow to pick up evacuees, and the location of reception centers."

As a result of the deficiencies in the Parsons, Brinckerhoff plan, Westchester County has insisted on an independent transportation study to provide Westchester County with an evacuation management system. The proposed work would begin with an assessment of the public's attitudes and their perceived needs regarding emergency transportation and continues through several stages including designing routes, identifying resources, testing the new plan, informing the public, and devising a method of maintaining the evacuation system. Planners expect that the project would take 12 months from the time the contract is signed. Although the New York Times reported on Tuesday, May 17, that the Licensees have agreed to pay \$241,725 toward such a project, Parents Concerned About Indian Point is unaware that any contract for the work has been signed.

In any event, the transportation plan for Westchester County will not be completed for several months, at the least, and no real involvement of bus companies and bus drivers can take place until the paper plans are ready. Only at that point could implementation begin in order to achieve an adequate level of preparedness. At that point, drivers could be trained regarding their particular responsibilities under the revised plans, the public could be informed, and detailed contracts could be worked out regarding insurance, compensation, equipment, and radiological exposure control for the drivers.

It has been reported, again in the New York Times of May 17, that New York State has pledged to supply the Westchester bus operators with 1000 dosimeters and 1000 bottles of potassium iodide. Until these pieces of equipment have actually been distributed, the state of preparedness remains inadequate.

Westchester County Executive Andrew P. O'Rourke has received extensive publicity by announcing that bus driver unions had agreed to allow drivers to attend a two hour course on "radiation emergency response procedures." The course is an introductory explanation of what would be expected from the bus drivers in light of the dangers as evaluated by the Licensees who will prepare and present the lecture. Parents Concerned About Indian Point predicts that the lecture will minimize the dangers of ionizing radiation, will assure drivers that they would have plenty of time to complete their mission before any radiation is released, will brush off logistical questions, and will assert that the drivers can expect a helpful, compliant public response. Of course, the Licensees will stress their view of the risk of a major release of radiation at Indian Point.

After this introduction, volunteers will be identified who are willing to receive further training and possibly to participate in an emergency response effort in case of an accident at Indian Point. The drivers who volunteer for further training are not necessarily committing themselves to drive during a radiological emergency, since the unions' health and safety committees plan to evaluate the training, and agreements have not been reached regarding the compensation of drivers during a radiological emergency. The introductory explanation has not begun to date.

School bus drivers are part-time employees. Many are housewives and/or have second jobs. They are laid off during the summer months and the turnover rate is high. In order to maintain an acceptable level of preparedness, volunteer drivers will have to be identified and trained at least once a year. Westchester County transportation officials have pointed out the deficiencies in the "discussion of risk and control measures" which was given to the few drivers who participated in the 1982 exercise: "all felt that the presentation was too long; too technical; did not address what a bus driver is likely to encounter and most important would not have enlisted volunteers from the group to participate in a real emergency." (Raymond Jurkowski, Deputy Commissioner of Transportation, prefilled testimony, ASLB hearings)

TRAINING

Training of other emergency workers has been less than satisfactory as well. There is no pre-testing or post-testing to determine how well the information is assimilated by the trainees. There is no periodic retraining; training is not routine

and on-going but sporadic and inconsistent. Sheriff Daniel P. Guido, Commissioner of Public Safety of Westchester County, has characterized the training as "rudimentary" and "merely introductory." Don McGuire, Deputy Director of the Office of Emergency Services for Rockland County has also criticized the incomplete training curriculum.

New York State through Donald Davidoff of the Radiological Emergency Preparedness Group has said "many times" that the state would provide training to all emergency workers, but Anthony Marasco, Director of the Westchester County Office of Disaster and Emergency Services, takes issue with Mr. Davidoff's judgement that the state does and is able to provide sufficient training.

Training has been geared to participation in the annual radiological emergency planning exercises. Training sessions have been crowded, hastily arranged, and have left trainees with many unanswered questions. Trainees have reported that the instructors make unsupported assertions about the scenario during a radiological emergency at Indian Point, such as:

Only five or six emergency workers are expected to require decontamination at the Personnel Monitoring Center (PMC).

Radiation levels would be no more threatening than those associated with charcoal-broiled steak and peanut butter.

Prompt response by all emergency workers, even those coming from afar, will not be hampered by traffic or communications conditions.

There would be 2 hours warning before core melt.

During the March, 1983, exercise, employees of local government were sent out to do emergency work without adequate training in dosimetry. Since barely a fraction of the police officers, fire fighters, ambulance personnel, health care and social service workers in Westchester County have been trained to date, ad hoc training measures would be the rule rather than the exception if an accident at Indian Point were to occur in the near future. There are currently no plans to train town and village employees in local departments of parks, highways, and public works, although the Westchester County Radiological Emergency Response Plan calls on these employees to clear parks, remove debris, and set up traffic barricades.

Department of Health employees who have been given training in radiation monitoring and decontamination report that the training was more appropriate for small, localized emergencies such as a transportation spill. They do not feel confident that they could handle the responsibility of a large scale accident involving a significant release of radiation. During one training session, the lecturer admitted, under pressure, that in the event of a breach of containment accident, health care workers could do little to mitigate the disaster, given present facilities and resources and the large population which would be affected.

MEDICAL AND PUBLIC HEALTH SUPPORT AND EXPOSURE CONTROL

In light of the fact that children are more susceptible to the effects of ionizing radiation than adults, Parents Concerned About Indian Point have paid careful attention to the plans regarding medical and public health support and exposure control in case of a radiological emergency at Indian Point. It has been clear

from the beginning that no special planning is being done to minimize the danger to children. After a long battle, the New York State Department of Health finally agreed that potassium iodide would be recommended for emergency workers and "captive populations" such as prisoners and nursing home patients. But schools and households do not have access to the drug which might prevent the uptake of radioactive iodine in the vulnerable thyroid glands of children.

In the event of a major release of radiation from Indian Point, Parents Concerned About Indian Point would expect that our children would be provided with the best possible diagnosis and treatment of contamination. The reality, we conclude based on paper plans, surveys of health related facilities, and observation of the emergency planning exercises, is that the monitoring, decontamination, and further treatment of victims will be minimal. There is NO PLAN to monitor internal contamination with whole body counters or to take blood counts or nasal wipes. There is not enough equipment presently in place to monitor individuals on any but the most token level. This was clear during the 1983 exercise when 2 of 3 geiger counters at the Fox Lane High School (Westchester County) monitoring and decontamination center went dead after one hour, and at the PMC in Westchester County, 2 of 4 monitoring devices were not in working order. The potassium iodide distributed to the police officers in Ossining, New York, had an expiration date of June, 1981. If these are the conditions which obtain during a simulation when participants have been coached and coaxed into readiness for weeks in advance and all equipment had been recently checked, it is not reassuring

to Parents Concerned About Indian Point to consider the effectiveness of monitoring and decontamination during the stress and confusion of a real emergency.

FEMA reports on p. 32 of the Post Exercise Assessment, § 2.4.8 (regarding Westchester County) that "The control of water that becomes contaminated as a result of decontaminating the general population, emergency workers, and vehicles was simulated at the PMC and reception centers." This statement is extremely misleading and must have been written by someone who does not know the current status of the Westchester County Radiological Emergency Response Plan regarding the disposal of contaminated liquid waste. During the bi-weekly meetings of the "120 day clock Task Force" in October and November of 1982, state and local health officials admitted that there is NO FEASIBLE WAY to collect and properly dispose of contaminated water. FEMA acknowledged this and the current plan is to allow the water to enter the sewers or to run-off into the ground. Parents Concerned About Indian Point is not reassured by the assumption that the degree of concentration and effect to the environment will be minimal. Environmental effects, whatever they are, will show up first in children.

The problem of contaminated water is only one example of the insurmountable difficulties involved in protecting the health and safety of the public in the face of a significant release of radiation at Indian Point. It is also an example of how FEMA deals with identified deficiencies. FEMA's "Interim Findings" of July 27, 1983 identified waste disposal as part of the significant deficiency in Planning Standard K, but when

it is clear that nothing can be done to correct the deficiency, the subject is quietly dropped.

SPECIAL NEEDS POPULATIONS

Area residents who are members of special needs populations and/or who have responsibility for handicapped, elderly, or bedridden people have repeatedly pointed out deficiencies in planning and preparedness for sheltering or evacuating them.

For example:

No provisions have been made for notifying the deaf through visual alarms.

Administrators of sheltered workshops for the mentally retarded have had no response to their requests for special transportation.

Self-identification is a very poor way to locate the special needs populations requiring help during an emergency, and no outreach program has been developed to identify such persons.

Even those who have mailed in the postcard requesting special help have not received a reply.

Realistically, it must be expected that many elderly people or nursing home residents would be advised to shelter rather than undergo the trauma of evacuation, but Westchester County officials have very little information about the adequacy of sheltering in buildings within the 10 mile EPZ.

The plans for special needs populations are extremely inadequate, but they are only deficient, according to FEMA, to the extent that there are no contracts with bus companies! The fact is, if there is a radiological emergency at Indian Point, there will be "evacuation by triage." Able bodied people with cars at their disposal will have a chance to escape, while the elderly, handicapped, and home-bound will be left to inadequate ad hoc measures.

PREPAREDNESS OF LOCAL GOVERNMENTS

On p. 1024, Vol. II, Part 3 of the Rogovin Report, the Commission is advised that "The ability to carry out any evacuation around a nuclear powerplant depends more on the existence of adequate county and local emergency plans than on the existence of an NRC-approved State plan. As Oran Henderson, the Director of PEMA, told us:

I could prepare you the most beautiful State plan that I assure you NRC would approve, but if the plan isn't disseminated and the subordinate county and local municipal plans prepared that dovetail (with the State plan) and take the guidance in the State plan, you still don't have anything. It's the local government and the county government that are going to have the capability to execute any evacuation, if evacuation were necessary."

Local town and village officials in the 10 mile EPZ have repeatedly pointed out the lack of preparedness on the front-line level of emergency response. Supervisors, councilmen, police chiefs, village trustees, all have called for more detailed planning and a greater infusion of resources at the local level. Recently the Town of Ossining took the drastic step of approving a resolution to pull out of the emergency plan if their concerns are not addressed within 90 days. The Village of Croton passed the attached resolution calling for a shutdown of the reactors while local plans are improved. The Town of Yorktown has submitted a letter and a packet expressing deep reservations about their ability to respond adequately to a radiological emergency. Here are a few quotes from the prefiled testimony of several local officials:

"Our department's manpower would be unsure. We don't know how many men would report to work and how many would take care of their families and leave. I haven't any power to force them to work." Fred Seeger, Superintendent of Highways, Clarkstown, NY.

"The safe evacuation of Haverstraw Village residents in the event of a nuclear mishap at the Indian Point Nuclear Power Plant is ...NOT POSSIBLE...at this time. The dangerous conditions existing at the Route 9W intersections and railroad crossings in the Village of Haverstraw plus the hazardous tunnel on Gurnee would prevent adequate and safe traffic flow." Thomas R. Ryder, Jr. Director of Civil Defence, Village of Haverstraw

"I can't count on an informed public - the brochures are written in English only, but this is a multi-language town. Thirty-five percent of our people are hispanic, we have people who speak/read only French, Russian, Chinese." Michael Holland, Chief of Police, Village of Haverstraw

"Our police force will do a good job with what they have, but the point is that it is above and beyond the capacity of our department to respond to the kind of emergency contemplated by the radiological emergency response plan. Our entire on-duty police staff gets tied up when a one-car accident occurs." Richard Wishnie, Supervisor, Town of Ossining

"The radio frequency at the Police Station only reaches Briarcliff, Ossining, and Croton. It should also reach Buchanan, the State Police, Peekskill and Yorktown. There is no back-up to the "hot-line" phone in case phone lines went out." Reginald Lambruschi, Chief of Police, Village of Croton-on-Hudson

"At the present time a viable educational and training program has not been put into place. No evacuation plan can possibly succeed without an intensive program for everyone from government officials to ordinary citizen." Nancy Elliott, Supervisor, Town of Yorktown

"Bottlenecks which might develop on two of the evacuation routes listed for Croton (Routes 9 and 129) invite a chaotic situation to occur in the event of a mass evacuation." Richard Herbeck, Village Manager, Village of Croton-on-Hudson

"We must consider the human factor. What assurances do we have that those actually involved in the plan will completely follow their assignments?" Myles Lavelle, Councilman, Town of Stony Point

"There is little need to remind the Commission if an evacuation was called the result would be utter confusion and extremely dangerous." Lucien Conklin, Supervisor, Town of Stony Point

"Evacuation via the Parkway during one of these congested times may prove impossible over any reasonable length of time." Kenneth Ingenito, Rockland County Legislator from Stony Point

At present the finances and other resources of local governments are severely strained by the requirement that they participate in radiological emergency planning efforts. Area residents will not be satisfied with paper plans that meet with NRC or FEMA approval. We will insist that problems which we have identified be corrected, and we do not feel that our local taxes should be devoted to the benefit of the Licensees.

CONCLUSION

In conclusion, Parents Concerned About Indian Point would urge the Commission to evaluate the emergency planning situation at Indian Point from the point of view of a parent responsible for the well-being of the future generation of Americans. In the most densely populated area of the country, emergency plans must be very thorough and demonstrably workable. If there is to be error in these deliberations, let it be on the side of conservatism: if the position of Parents Concerned About Indian Point is wrong, the consequences will be a temporary suspension of the operating licenses of the Indian Point plants. If we are correct in our conclusion that the plans remain seriously deficient in many respects in addition to the two significant deficiencies identified by FEMA, the health and safety consequences of an accident at Indian Point are likely to take an unconscionable and disproportionate toll on the children of the area.

The Commission has recognized the importance of emergency planning as a measure to protect the health and safety of the people affected by the operation of nuclear power plants. In light of the facts and arguments presented here by Parents Concerned About Indian Point, the operating licenses of the Indian Point reactors must be suspended while all problems are corrected.

Respectfully submitted,

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