UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
CONSOLIDATED EDISON COMPANY OF NEW YORK (Indian Point Unit 2)	)	Docket Nos. 50-247 SP 50-286 SP
	)	
POWER AUTHORITY OF THE STATE OF NEW YORK (Indian Point Unit 3)	)	April 28, 1982

UCS/NYPIRG FIRST SET OF INTERROGATORIES AND REQUEST FOR PRODUCTION OF DOCUMENTS TO CON EDISON AND PASNY

The New York Public Interest Research Group/Union of Concerned Scientists (NYPIRG/UCS) serves on Con Edison and PASNY the interrogatories and requests for production of documents that appear below. A sworn response to them must be provided to NYPIRG/UCS in accordance with the terms of 10 CFR Section 2.740(b) and 2.741(d) and in accordance with the Board's order of April 23, 1982. If the answer to any question is not known when the response is filed, the answer must be provided as soon as the missing information becomes available.

As used in the interrogatories and request for production of documents, the following definitions apply as indicated:

1. "Con Edison and PASNY" means Con Edison, PASNY, their officers, agents, employees, and consultants.

2. "Facts," include the calculational or other assumptions, if any, underlying various assertions of fact. "Including" and "include," as used in these interrogatories, mean "including but not limited to."

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3. "Document" or "documents," mean any handwritten, typed, printed, recorded or graphic matter however produced or reproduced, including material stored for use in automatic data processing systems, whether or not in the possession, custody or control of PASNY and/or Con Edison and whether or not claimed to be privileged against discovery on any ground including: reports; records; lists; memoranda; correspondence; telegrams; schedules; photographs; sound recordings; films; hand, machine and computer calculations; computer codes; data; and written statements of witnesses or other persons having knowledge of the facts.

4. "Studies or observations," include physical, empirical, calculational, assumptional, and other types of work, whether recorded in writing or not.

Please provide answers to the following questions:

1.) Identify all individual(s), that you intend to present as witnesses in this proceeding on the subject matter of any of the order's questions. The identification should include the following:

a. What is the person's full name?

b. What is the person's address?

c. What is the person's present or last known position and business affiliation?

d. What is the person's field of expertise?

e. On what date did Con Edison and/or PASNY first contact or consult the person?

f. What are the dates of all subsequent contacts or consultations with the person?

g. Were any reports made to Con Edison and/or PASNY by the person?

h. If the answer to question 1g is anything other than a simple negative, indicate for each such report:

(1) the date of the report;

(2) whether the report was written or oral; and

(3) whether the report was submitted by the person while acting in an advisory capacity, as a prospective witness, or both.

i. What is the subject matter of the witness' testimony?

j. What are the facts and/or opinions to which the witness will testify and the grounds for each fact or opinion?

2.) Provide a reasonable description of all documents that will be relied upon in the testimony presented by each witness.

3.) Identify by author, title, date of publication and publisher, all books, documents, and papers you intend at this time to employ or rely upon in conducting your cross-examination of prospective NYPIRG/UCS witnesses testifying in connection with NYPIRG/UCS contentions.

4.) Is it Con Edison and/or PASNY's position that the combined off-site emergency plans of the licensees, local and state officials are required to be in full compliance with the emergency planning measures set forth in 10 CFR 50, Appendix E and 10 CFR 50.47 which became effective on November 3, 1980, including each of the criteria set forth in NUREG-0654, Rev. 1, dated November 1980 in order for the Indian Point plants to operate?

5.) If the answer to 4 is anything other than a simple affirmative, list each requirement of the regulations which is not applicable and, for each, provide each study, observation, or documents which Con Edison and/or PASNY rely on to support that conclusion.

6.) Do(es) Con Edison and/or PASNY contend that the combined off-site emergency plans of the licensees, local, and state officials are now in full compliance with the emergency planning measures set forth in 10 CFR 50, Appendix E, and 10 CFR 50.47 which became effective on November 3, 1980, including each of the criteria set forth in NUREG-0654, Rev. 1, dated November 1980?

7.) If the answer to 6 is a simple affirmative, provide each study, observation, or document which Con Edison and/or PASNY rely on to support this conclusion including copies of the relevant licensee, local, and state emergency plans.

8.) If the answer to 6 is anything other than a simple affirmative, list each requirement of the regulations which is not currently complied with, and for each, provide each study, observation, or documents which Con Edison and/or PASNY rely on to support this conclusion.

9.) For each of the requirements listed in 8, provide a schedule which sets forth the date when Con Edison and/or PASNY believe the non-compliance will be corrected.

10.) Is it the position of Con Edison and/or PASNY that the ten-mile (radius) EPZ for the plume exposure pathway is appropriate for Indian Point?

11.) If the answer to 10 is a simple affirmative, provide each site-specific and generic site study, observation, or document on which Con Edison and/or PASNY rely to support this conclusion with regard to the following considerations:

a. Demography

b. Meteorology

c. Topography

d. Land use characteristics

e. Access routes

f. Local jurisdictional boundaries

g. Release time characteristics

12.) If the answer to 10is anything other than a simple affirmative, provide the dimensions and a detailed diagram and description of the plume exposure pathway EPZ that Con Edison and/or PASNY believe is appropriate for Indian Point.

13.) For the plume exposure EPZ set forth in12, provide each site-specific and generic site study, observation, or document which PASNY and/or Con Edison relies on to support this conclusion, with regard to the following considerations:

a. Demography

b. Meteorology

c. Topography

d. Land use characteristics

e. Access routes

f. Local jurisdictional boundaries

g. Release time characteristics

14.) Does Con Edison and/or PASNY contend that a 50-mile (radius) ingestion pathway EPZ is appropriate for Indian Point?

15.) If the answer to 14 is a simple affirmative, provide each site-specific and generic site study, observation, or document which PASNY and/or Con Edison rely on to support this conclusion, including all of the preceding which address

the following:

a. Demography

b. Meteorology

c. Topography

d. Land use characteristics

e. Time of year of release

16.) If the answer to 14 is anything other than a simple affirmative, provide the dimensions and a detailed diagram and description of the ingestion pathway EPZ that Con Edison and/or PASNY believe is appropriate for Indian Point.

17.) For the ingestion pathway EPZ set forth in 16, provide each site-specific or generic site study, observation, or document which Con Edison and/or PASNY rely on to support this conclusion, including all of the preceding which address the following:

a. Demography

b. Meteorology

c. Topography

d. Land characteristics

e. Time of year of release

18.) With regard to the responses provided by Con Edison and/or PASNY to the above fourteen interrogatories who are the persons, if any, on whose opinions and/or knowledge of facts Con Edison and/or PASNY

a. now relies; and

b. expects to rely during the Indian Point hearings?

Following the substantive response to each of the subsequent interrogatories posed by NYPIRG/UCS, identify all documents and studies relied upon by you in providing the answers to that interrogatory. The identification should be specific to the portion of the document or study relied upon. Studies shall include observations, calculations, literature and other types of work, whether recorded in writing or not, which consist of an examination or analysis of a phenomenon.

Following the substantive response to each of the subsequent interrogatories posed by NYPIRG/UCS, identify by name and affiliation each individual who has knowledge which served as the basis for the answer to that interrogatory.

19.) What letters of agreement, other than those listed in the August, 1981 version of the plans, have been obtained from individuals and organizations, both public and private, assigned duties in the plans?

20.) Have any other methods been used to determine the willingness and ability of the above-mentioned individuals and organizations to participate as outlined in the plans? If so, please specify the methods and the full extent of their application.

21.) What criteria will be used for determining the most efficient and most productive use (in terms of protecting the public health and safety) of available services and resources should such services and resources become wholly or partially unavailable or should such services and resources be inadequate to respond to a particular emergency situation?

22.) Have resources recommended and available ever been tabulated against any specific hypothetical accident consequence scenario to

determine adequacy? If not, how were resource baselines determined?

23) Has any study been done of phone capacity in the EPZ to determine the likelihood of phone overload during a massive emergency?

24.) What percent of the population within the 10-mile EPZ would require mass care?

25.) What percent of the population within the 10-mile EPZ is in some way handicapped (i.e. blind, deaf, mentally impaired, emotionally impaired, or physically impaired)? How were these figures determined?

26.) What percent of the at-risk population is non-English speaking?

27.) What arrangements have been made for notifying and communicating with the non-English speaking sector of the population?

28.) Has the prompt notification system, including all tone alerts, been fully installed, tested and determined adequate?

29.) Have "deaf spots" in the above system been identified?

30.) If the answer to the above questions is yes, how will these deaf spots be covered? Has it been determined how many personnel will be required to accomplish complete notification of this sector?

31.) List the significant equipment and the staffing to be in place in the Technical Support Center and the Emergency Operations Facility during an emergency. Which of this equipment and staffing will be in place before an emergency?

32.) What has been done to improve the administration of the on-site emergency preparedness program since Boyce Grier's (Director, NRC Region 1) August 21, 1981 letter calling such administration ineffective?

33.) How have the on-site emergency facilities been otherwise upgraded since the above-mentioned letter?

34.) What protection is available for emergency workers in order for those workers to safely perform accident assessments and other activities which require direct exposure to radiation?

35.) What study has been done of the sheltering capabilities of buildings within the plume EPZ? Specifically, what analysis was done of the sheltering factor of the structures at Ossining State Prison in order to determine the preclusion of evacuation under any circumstances?

36.) What methods, if any, for permanent record-keeping of emergency response personnel radiation exposures have been developed?

37.) Describe the decontamination facilities available. Where are they? How are they presently equipped?

38.) Identify the transportation resources available to transport irradiated and contaminated persons to appropriate medical or decontamination facilities. Have agreements been made with the drivers of the vehicles that are to carry such contaminated individuals?

39.) What is the method to be employed for periodically estimating the total population exposure to radiation during an emergency?

40.) Are there any objective criteria upon which to base decisions regarding the return of the general public to areas affected by a nuclear power plant accident at Indian Point?

41.) What provisions are there for updating evacuation time estimates to account for new construction, long-term unavailability of major routes due to repair work, changes in the population, etc?

42.) State whether any protective gear has been purchased to protect National Guardsmen and other emergency personnel in the event of an emergency.

43.) Provide an accurate estimate of the population of all livestock in the ten, twenty, and fifty mile radius of Indian Point, providing the population for each major species of livestock. Describe in detail the source of the data used in compiling such estimates. Provide an estimate of the economic value of the above livestock.

44.) Describe in detail the process relied upon by licensee in computing the probability of any given accident sequence. Provide detailed and thorough justification for this computational method, paying particular attention to the repective role of human (operator) error as compared to roles of equipment and instrumentation information malfunction. For each of the above-identified three components of error (operator, equipment, and instrumentation-information) demonstrate the extent to which the assumed probabilities are based on past experience is used as a basis for probability estimates, state whether the estimate is based on past experience with identical reactors and control room designs to Indian Point, if not, state what methods are relied upon to take into account the specific reactors and control room-dependent characteristics of Indian Point, as well as the quality and effectiveness of operator training and emergency procedures at Indian Point; if there is no such consideration of Indian Point -- specific perimeters of probability in determining accident probability, provide a full and thorough justification why such consideration is not needed. If estimates other than those based on past experience are utilized in calculating probabilities, provide a detailed justification and basis for these estimates.

45.) In the event that voluntary personnel did not respond to your requests for aid in times of an emergency, please state how you would respond to the situation.

46.) Specifically state the premises and grounds on which Licensee answered the proceeding interrogatory. If there are studies available, please indicate the existance of those studies and attain a copy of the studies that you have in your possession.

47.) How will the public beyond the 10 mile EPZ be informed of the travel of a plume?

48.) How has the emergency plan addressed the protection of the population beyond the 10 mile EPZ, for instance the sheltering suggested in NUREG-0396?

49.) How will movement of evacuees through the 50 mile EPZ affect the ability of the people in this area to implement their own protection in the event of exposure to the plume?

50.) For each agency or organization with which Licensee has a letter of agreement and understanding, provide documents which specify what assistance is to be rendered and list mutually acceptable criteria for the implementation of these types of assistance.

51.) Provide documentation indicating the qualifications of hospital and medical personnel who are relied upon by Licensee to provide emergency services to accomodate radiological emergencies, especially to injured persons who may also be radioactively contaminated.

52.) What assurance is there that licensee Emergency Action Levels constitute a sufficient set of perimeters and action levels for all possible accidents?

53.) What assurance is there that the licensee Emergency Action Levels adequately account for the lead times necessary to implement those protective actions which will be necessary in response to the emergencies which caused the EAL's to be declared?

54.) Provide a detailed summary of any and all documents that have been prepared or commissioned by Licensee concerning the manangement ability of Licensee. (In particular, for each such document, identify the author(s) and their qualifications, and describe any evidence in such documents that points towards evidence of lack of adequate management ability on behalf of licensee.)

55.) What determinations has the Licensee made, if any, as to the existance in the environs surrounding Indian Point of conditions such as demography, topography, climate, land characteristics, access routes, and local jurisdictional boundaries that warrant departure from a circular EPZ defined uniformly by a 10 mile radius from the plant?

56.) Describe fully the instrumentation the licensee intends to install in its off-site Emergency Operations Center in terms of the specific items of information (i.e. radiation monitoring; essential plant status perimeters such as pressure and temperature) such information will be able to furnish.

57.) Identify the provisions in the licensees' Emergency Plans which either singularly or collectively are intended to prevent damage to property such as livestock in the area surrounding the plant site. Explain how each contributes to the achievement of this goal.

58.) Identify each step that must be taken from the time an off-site radiation monitoring survey team is dispatched to the time the findings of such a monitoring effort are made available for ose assessment calculations.

a.) How much time is required for the above-described process to take place?

b.) How would the answer be affected by the installation of off-site monitoring devices that could be remotely read either onsite or at the Emergency Operations Facility?

c.) Explain the basis for the Licensees' belief that offsite monitoring devices that cannot be remotely read onsite provide adequate accident assessment capability.

59.) What arrangements are necessary for special deliveries of gasoline to service stations along evacuation routes?

60.) Do such arrangements presently exist?

61.) For each of the four (4) "at risk" counties describe the communications system presently in effect between the county emergency operations center and local EOC's.

62.) Describe the extent to which any such system is not operable (i.e., local contact not available) on a 24-hour basis.

63.) What is the time required for the removal of seats from the buses which will be used to evacuate nursing home wheel chair patients?

64.) What is the time required for the evacuation of each of the hospitals located within a 10-mile radius of Indian Point? Explain fully the reasons for the time given in each case.

65.) Identify all assumptions used in arriving at evacuation time estimates, such as road capabilities and traffic volume over given egress routes.

66.) How would such estimates be affected by each of the following conditions: (1) Inclement weather, including snowstorm, (2) Rush-hour congestion, and (3) traffic accidents?

67.) Identify any and all documents that have been prepared or commissioned by or for the licensees to investigate the credibility, as perceived by the public within the general vicinity (whether that be a ten mile radius, surrounding townships or counties, or other boundary) of Indian Point, of Licensee, or agents of Licensee, whether that credibility be of a general nature, or specifically in respect to the accuracy of reported occurances, offsite radiation levels, etc.

Identify the authors of each such document, and their qualificatio..

68.) Identify any and all reports known to the Licensee, including reports in newspapers and media in the Indian Point area, that show evidence that there is, or ever has been, any substantial lack of public trust in the credibility of the Indian Point licensees.

69.) How have the differences of nuclear emergency from other kinds of disasters been defined and evaluated in assessing public performance in a real nuclear disaster?

70.) Will the public relations efforts of utilities to gain acceptance of nuclear power have an effect on the willingness of the public to evacuate during various stages of an emergency?

71.) Does the Licensee consider "spontaneous" evacuation outside the 10 mile EPZ a possibility?

72.) If the answer to the above question is yes, have the Licensees, or their agents, done any research into the effects of such a "spontaneous" evacuation on the evacuation efforts within the EPZ? Is so, what are the results of this research.

73.) Do the emergency response plans take into consideration the likelihood of "spontaneous" evacuation outside the 10 mile EPZ?

74.) To what extent are the evacation time estimates dependent on the assumption of prior mobilization and stationing of emergency forces from the state and counties? If it is assumed that no prior mobilization and stationing, or only partial mobilization and stationing is possible prior to the evacuation order going out, how much longer could the evacuation require?

75.) Have Licensees' emergency plansand implementing procedures been reviewed regarding the ability of Licensee to collect environmental radiation samples under adverse weather conditions? How many 4-wheel drive vehicles, snowmobiles, boats, and helicopters does Licensee possess?

76.) Identify any and all medical facilities known to the Licensees that are within 75 miles of Indian Point, and that possess the capability to accept and treat persons who might become exposed to radioactive contamination (and other injuries) resulting from an accident at Indian Point. For each such medical facility, provide an estimate of the number of such persons who could be treated; describe the radiological measuring instruments available; describe the contingency plans that have been prepared by that facility for a radiological accident at Indian Point; describe the capability -- e.g. staff, appropriate supplies, etc. that are available for such treatment; and identify the chief medical officer of each facility.

77.) Identify any and all facilities for Radioactive decontamination of persons who might be exposed to an accident at Indian Point, and are beyond 75 miles from the plant.

a. For each such facility, provide an estimate of the number of such persons who could be treated; describe the radiological measuring instruments available; describe the contingency plans that have been prepared by that facility for a radiological accident at Indian Point; describe the capability - e.g. staff, appropriate supplies, etc. that are available for such treatment; and identify the chief medical officer of each facility. Summarize the contingency plan for transportation of persons from within the EPZ to the decontamination facility.

78.) Please provide the draft report(s) by Parsons Brinckerhoff explaining how evacuation times in the preparedness plans were obtained.

79.) Please provide the basis for Parsons Brinckerhoff's conclusions, regarding the method used to convert population to passenger car equivalents and how the numbers of passenger car equivalents changed as a function of time of day.

80.) Please provide the numerical assumptions utilized by Parsons-Brinckerhoff to convert buses to passenger car equivalents.

81.) Please provide the assumptions utilized by Parsons Brinckerhoff in formulating the time estimate studies regarding how and where the population was loaded on the network, particularly assumptions about rate of loading.

82.) Please provide the assumptions utilized by Parsons Brinckerhoff about "terminal" time and/or the time needed to reach the network.

83.) Please provide the choices made and assumptions utilized by Parsons-Brinckerhoff about evacuation routes and road capabilities.

84.) Please provide the estimates of the percentage of persons evacuated from the EPZ and each ERPA as a function of time.

85.) Describe any and all information in the possession of the licensees pertaining to the intervenor organizations and to individual members of intervenor organizations and describe the measures by which such information was obtained. Also describe the purpose for which such information was obtained.

86.) Describe any and all public information, public relations, and advertising programs currently underway to inform or reassure the public about the risk of accidents at Indian Point, the potential consequences of accidents, and the adequacy of emergency preparedness to mitigate these consequences.

87.) Describe any and all visits the licensees, their attorneys, or any representative of the licensees and/or their attorneys have made to the offices of the intervenors, and for what purpose. Please identify the names of those people.

88. What is the licensees' position on the probability of an accident as described in the scenario of the Indian Point joint exercise of March 3, 1982?

89. Provide all notes, reports, and documents relating to the licensees' preparation for and assessments of drills preceding the Indian Point joint exercise of March 3, 1982.

90. Provide all drafts, letters, documents, etc. used in the licensees' role in the preparation of the scenario used for the joint exercise of March 3, 1982. Identify personnel involved and provide their credentials.

91. What is the licensees' position, and what has it been, on the necessity of sounding the sirens during the joint exercise of March 3, 1982? Provide detailed information on the post-exercise testing program of the sirens.

92. Provide all notes, reports, documents, etc. presented in all meetings participated in by the licensees and their consultants in preparation for and subsequent to the Indian Point exercise of March 3, 1982.

93. What was the total cost to licensee ratepayers of licensee personnel's and their consultants' paricipation in all activities relating to the Indian Point exercise of March 3, 1982?

94. What is the licensees' position on improvements needed for

future exercises at the Indian Point site?

95. Identify all licensee personnel, their consultants and lawyers, who participated in or observed the Indian Point exercise of March 3, 1982. Include their credentials.

96. Provide all notes, reports, documents, etc. relating to licensees' participation in and observation of the March 3, 1982 exercise, including all contributions by licensee personnel, consultants, and attorneys.

97. What is licensees' position on the adequacy of public information brochures at the time of the exercise? Provide all drafts, letters, documents, etc. used in preparation of the current brochure. If considered inadequate, what is licensees' timetable for improving and redistributing the brochures?

98. What was the timetable for alerting and mobilizing licensee personnel during the exercise?

99. What is the licensees' position on the adequacy of public and media relations as demonstrated in the exercise, and if inadequate, what is its timetable for educating the press and public?

Dated: April 29, 1982
New York, New York

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