

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
GENERAL ELECTRIC COMPANY	)	Docket No. 70-1308
	)	(Renewal of SNM-1265)
(GE Morris Operation Spent Fuel Storage Facility)	)	

NRC STAFF INTERROGATORIES TO, AND  
REQUEST FOR THE PRODUCTION OF  
DOCUMENTS FROM, THE STATE OF ILLINOIS

The Nuclear Regulatory Commission (NRC) Staff hereby requests that the State of Illinois, pursuant to 10 CFR § 2.740b and in accordance with the Atomic Safety and Licensing Board's Order Extending Schedule for Discovery of June 23, 1980, answer separately and fully, in writing under oath or affirmation, the following interrogatories.

For each response to the interrogatories set forth below, identify the person or persons who prepared or substantially contributed to the preparation of the response.

The NRC Staff further requests that the State of Illinois, pursuant to 10 CFR § 2.741, provide copies of, or make available for Staff inspection and copying, the documents designated by the State in response to certain of the accompanying interrogatories.

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I. General Interrogatories<sup>1/</sup>

G-1 State whether or not you intend to call any person or persons as witnesses in this proceeding in support of

- (a) Contention 1
- (b) Contention 2
- (c) Contention 3
- (d) Contention 4
- (e) Contention 5
- (f) Contention 6
- (g) Contention 7

and provide the names, addresses, educational backgrounds and professional qualifications of those persons you intend to call.

G-2 Indicate which of those persons identified in response to Interrogatory G-1 will appear voluntarily and which persons you intend to subpoena.

G-3 Provide summaries of the views, positions, or proposed testimony on

- (a) Contention 1
- (b) Contention 2
- (c) Contention 3

<sup>1/</sup> Interrogatories in this section should be answered with respect to each contention. The contentions referred to are those contentions raised by the State as modified, renumbered and admitted by the Licensing Board in its Order Ruling on Contentions of the Parties issued on June 4, 1980.

- (d) Contention 4
- (e) Contention 5
- (f) Contention 6
- (g) Contention 7

of all persons named in response to Interrogatory G-1 that you intend to present during this proceeding.

G-4 Identify by author, title, date of publication and publisher, all books, documents and papers that you intend to employ or rely upon in presenting your direct case on

- (a) Contention 1
- (b) Contention 2
- (c) Contention 3
- (d) Contention 4
- (e) Contention 5
- (f) Contention 6
- (g) Contention 7

and provide copies of, or make available for Staff inspection and copying, those items.

G-5 If the representations made in

- (a) Contention 1
- (b) Contention 2
- (c) Contention 3
- (d) Contention 4

(e) Contention 5

(f) Contention 6

(g) Contention 7

are based in whole or in part on any documents prepared by the Licensee or NRC Staff which you contend are deficient, identify the documents and specify the particular portions thereof you regard as deficient and explain why they are deficient.

G-6 Identify by author, title, date of publication and publisher, all books, documents or papers that you intend to employ or rely upon in conducting your cross-examination of prospective NRC Staff witnesses testifying in connection with

(a) Contention 1

(b) Contention 2

(c) Contention 3

(d) Contention 4

(e) Contention 5

(f) Contention 6

(g) Contention 7

(h) Board Question 1 as set forth in the Order Ruling on Contentions of Parties, dated June 4, 1980.

II. Interrogatories Related to Specific Contentions<sup>2/</sup>

Contention 1

- C1-1 Do you assert in Contention 1(a) that there could be simultaneous accidental radioactive releases from the Dresden Nuclear Power Station and the Morris Spent Fuel Storage Facility?
- C1-2 If the answer to Interrogatory C1-1 is "yes," state specifically and in detail the basis for such assertion. If you have no basis, so state.
- C1-3 If the answer to Interrogatory C1-1 is "yes," specifically identify and describe:
- (a) the transients, accidents or abnormal occurrences at Dresden and
  - (b) the transients, accidents or abnormal occurrences at the Morris Spent Fuel Storage Facility
- which could result in the "simultaneous accidental radioactive releases" referred to in Contention 1(a) and describe the manner in which such transients, accidents or abnormal occurrences could result in radioactive releases.

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<sup>2/</sup> The contentions referred to are those contentions raised by the State as modified, renumbered and admitted by the Licensing Board in its Order Ruling on Contentions of the Parties issued on June 4, 1980.

- C1-4 With regard to Dresden and the Morris Spent Fuel Storage Facility, do you believe that one or more of the transients, accidents or abnormal occurrences identified for one facility in response to Interrogatory C1-3 could cause one or more of the transients, accidents or abnormal occurrences identified for the other facility? If so, identify such transients, accidents or abnormal occurrences and provide the basis for your belief in this regard. If not, provide the basis for your assertion that simultaneous accidental radioactive releases from Dresden and the Morris Spent Fuel Storage Facility could occur.
- C1-5 If the answer to Interrogatory C1-1 is "no," state specifically and in detail the basis for your assertion that the CSAR should describe the consequences of simultaneous accidental radioactive releases.
- C1-6 Define the term "consequences" as used in Contention 1(a) and describe in detail the "consequences of simultaneous accidental radioactive releases" referred to in that contention.
- C1-7 With regard to Contention 1(a), indicate the CSAR description that you would consider to be adequate and provide the basis for your position in this regard.
- C1-8 Define "risks" as that term is used in Contention 1(b) and specifically as the term is used with regard to parts (i) through (ix) of Contention 1(b).

C1-9 As to Contention 1(b)(i):

- (a) describe the tornado impelled missile referred to and state the basis for the assertion that such a missile could be generated by a tornado and could impact the Morris Spent Fuel Storage Facility;
- (b) describe the tornado missile accident referred to and state the basis for the assertion that such an accident could be caused by a tornado missile at the Morris Spent Fuel Storage Facility;
- (c) describe the tornado missile accident consequences referred to and state the basis for your assertion that such consequences could occur;
- (d) state the basis for your assertion that radioactive releases from a tornado missile accident could exceed 10 CFR Part 20 limits;
- (e) indicate the CSAR description of the risks and consequences of tornado missile accidents that you would consider to be adequate and provide the basis for your position in this regard.

C1-10 As to Contention 1(b)(ii):

- (a) specifically describe the loss of coolant accident referred to, describe the mechanism causing such loss of coolant accident, and state the basis for your assertion that such loss of coolant accident could occur;
- (b) identify the "building structure" and describe the "rift" in the building structure referred to, describe the mechanism or accident causing such a "rift," and state the basis for your assertion that such a rift could occur;
- (c) state the basis for your assertion that the loss of coolant accident could occur in conjunction with an accident causing a rift in the building structure;
- (d) describe the consequences (referred to in Contention 1(b)(ii)) of a loss of coolant accident alone and the basis for your assertion that such consequences could occur;
- (e) describe the consequences (referred to in Contention 1(b)(ii)) of a loss of coolant accident in conjunction



with an accident causing a rift in the building structure and state the basis for your assertion that such consequences could occur;

- (f) state the basis for your assertion that radioactive releases from a loss of coolant accident alone or a loss of coolant accident in conjunction with an accident causing a rift in the building structure could exceed 10 CFR Part 20 limits;
- (g) indicate the CSAR description of the risks and consequences of a loss of coolant accident and of a loss of coolant accident in conjunction with an accident causing a rift in the building structure that you would consider to be adequate and provide the basis for your position in this regard.

C1-11 As to Contention 1(b)(iii);

- (a) describe specifically and in detail the "earthquake-related accidents" referred to and state the basis for your assertion that each of those accidents could result from the earthquakes the facility is required to resist under the existing facility license;

- (b) describe the consequences (referred to in Contention 1(b)(iii)) of the identified earthquake-related accidents and state the basis for your assertion that such consequences could occur;
- (c) state the basis for your assertion that radioactive releases from earthquake-related accidents could exceed 10 CFR Part 20 limits;
- (d) indicate the CSAR description of the risks and consequences of earthquake-related accidents that you would consider to be adequate and provide the basis for your position in this regard.

C1-12 As to Contention 1(b)(iv):

- (a) describe specifically the "sabotage-related accidents not analyzed in NEDM-20682" which you assert should be considered and state the basis for your assertion that such accidents could occur and should be evaluated;
- (b) describe the consequences (referred to in Contention 1(b)(iv)) of the identified sabotage-related accidents and state the basis for your assertion that such consequences could occur;

- (c) state the basis for your assertion that radioactive releases from sabotage-related accidents could exceed 10 CFR Part 20 limits;
- (d) indicate the CSAR description of the risks and consequences of sabotage-related accidents that you would consider to be adequate and provide the basis for your position in this regard.

C1-13 As to Contention 1(b)(v):

- (a) describe specifically the "fire"-related consequences referred to and state the basis for your assertion that such occurrences could take place;
- (b) describe the consequences (referred to in Contention 1(b)(v)) of the identified fire-related occurrences and state the basis for your assertion that such consequences could occur;
- (c) state the basis for your assertion that radioactive releases from fire-related occurrences could exceed 10 CFR Part 20 limits;

- (d) indicate the CSAR description of the risks and consequences of fire that you would consider to be adequate and provide the basis for your position in this regard.

CI-14 As to Contention 1(b)(vi):

- (a) define what is meant by "flooding" as that term is used in the contention, describe the mechanisms (both natural and manmade) which you assert could cause "flooding," and state the basis for your assertion that such mechanisms could cause "flooding;"
- (b) describe the consequences (referred to in Contention 1(b)(vi)) of flooding, indicate the manner in which flooding could cause releases of radioactivity and state the basis for your assertion that flooding could result in the described consequences and/or releases of radioactivity;
- (c) state the basis for your assertion that radioactive releases from flooding could exceed 10 CFR Part 20 limits;
- (d) indicate the CSAR description of the risks and consequences of flooding that you would consider to be

adequate and provide the basis for your position in this regard.

C1-15 As to Contention 1(b)(vii):

- (a) state the basis for your assertion that "acts of war" can be considered in this license renewal proceeding, citing any provisions of statutes or regulations which, to your knowledge, support your assertion;
- (b) define what is meant by "acts of war" as that phrase is used in the contention and describe the "acts of war" to which you refer in the contention;
- (c) describe the consequences (referred to in Contention 1(b)(vii)) of the "acts of war," state the basis for your assertion that such consequences could occur, and state the basis for your assertion that consequences from "acts of war" could exceed 10 CFR Part 20 limits;
- (d) indicate the CSAR description of the risks and consequences of "acts of war" that you would consider to be adequate and provide the basis for your position in this regard.

Cl-16 As to Contention 1(b)(viii):

- (a) describe specifically the "human error"-related occurrences referred to in the contention;
- (b) describe any instances (including date and citations to any reports on the matter) of the occurrence of human error resulting in accidents or the release of radioactivity at the GE Morris facility of which you are aware;
- (c) describe the consequences (referred to in Contention 1(b)(viii)) of human error-related occurrences and state the basis for your assertion that such consequences could result;
- (d) state the basis for your assertion that radioactive releases from human error could exceed 10 CFR Part 20 limits;
- (e) indicate the CSAR description of the risks and consequences of human errors that you would consider to be adequate and provide the basis for your position in this regard.

C1-17 As to Contention 1(b)(ix):

- (a) define what is meant by "massive electrical power failure" as that phrase is used in the contention, describe the mechanisms (both natural and manmade) which you assert could cause "massive electrical power failure," and state the basis for your assertion that such mechanisms could cause the power failure;
- (b) describe the consequences (referred to in Contention 1(b)(ix)) of massive electrical power failure, indicate the manner in which such power failure could cause releases of radioactivity, and state the basis for your assertion that massive electrical power failure could result in the described consequences and/or releases of radioactivity;
- (c) state the basis for your assertion that radioactive releases from massive electrical power failure could exceed 10 CFR Part 20 limits;
- (d) indicate the CSAR description of the risks and consequences of massive electrical power failure that you would consider to be adequate and provide the basis for your position in this regard.

Contention 2

- C2-1 State specifically the reasons why the GE Morris Physical Security Plan does not meet the requirements of 10 CFR Part 73. Include in your response an identification of the specific sections of 10 CFR Part 73 which you believe are not met and provide the basis for your assertions that those sections are not met.
- C2-2 Describe in detail the "advances in the technology of explosives" referred to in Contention 2 and state the basis for your assertion that such "advances in the technology of explosives . . . could make sabotage a more probable event" at the GE Morris facility.
- C2-3 Indicate the CSAR assessment of credible risks of sabotage-related events accounting for advances in the technology of explosives that you would consider to be adequate and provide the basis for your position in this regard.

Contention 3

- C3-1 Define what is meant by "personnel" as that term is used in Contention 3.
- C3-2 Describe the "projected effects on . . . health" referred to in Contention 3. If occupational exposure to radiation at the GE Morris facility is maintained at or below the limits set forth in NRC regulations, what health effects do you contend will occur and



what is the basis for your assertion in this regard? What is the basis for your assertion that such health effects must be considered?

C3-3 As to Contention 3(a):

- (a) state the manner in which the CSAR's failure to state total whole body exposure to occupational personnel results in an underestimate or an incomplete statement of health effects on personnel;
- (b) describe the manner in which whole body exposures to occupational personnel can affect the health of the families of such personnel and provide the basis for your response in this regard.

C3-4 As to Contention 3(b):

- (a) describe the "expected genetic effects on personnel" (referred to in Contention 3(b)) caused by whole body occupational exposures and state the basis for your assertion that such genetic effects are expected;
- (b) describe the "expected genetic effects . . . to the general population" (referred to in Contention 3(b)) caused by whole body occupational exposures and state

the basis for your assertion that such genetic effects are expected.

C3-5 As to Contention 3(c):

- (a) provide the basis for your assertion that "other tanks and pipes" have not been considered in the evaluation of occupational exposure;
- (b) specifically identify and describe the "other tanks and pipes" which you assert should be included as sources of occupational exposures, state the basis for your assertion that such tanks and pipes constitute sources of radiation and state the basis for your assertion that occupational personnel will be exposed to radiation from such "other tanks and pipes;"
- (c) describe the manner in which radiation exposures of occupational personnel from "other tanks and pipes" can affect the health of the families of such personnel and provide the basis for your response in this regard.

C3-6 As to Contention 3(d):

- (a) define the term "compaction" as it is used in Contention 3(d);

- (b) provide the specific basis for the assertion that fuel disassembly, dry storage or compaction are projected for the near future at GE Morris;
- (c) indicate the levels of "additional radiation exposure to occupational personnel" that you assert will result from "all anticipated activities at the facility" and state the basis for your assertion that such levels of exposure will occur;
- (d) describe the manner in which the additional radiation exposure to occupational personnel from the activities listed in Contention 3(d) can affect the health of the families of such personnel and provide the basis for your response in this regard.

C3-7      As to Contention 3(e):

- (a) define what is meant by "effective radiation monitoring" as that phrase is used in Contention 3(e);
- (b) state the basis for your assertion in Contention 3(e)(i) that there are no devices to measure radioactive materials in the air within the facility;

- (c) describe the type, number and location of monitoring devices which you believe would provide effective radiation monitoring of the air within the facility and state the basis for your response;
- (d) state the basis for your assertion in Contention 3(e)(ii) that there is no routine procedure to measure Kr-85 in the air within the facility;
- (e) describe the procedure that you believe would be adequate to routinely measure Kr-85 in the air within the facility and provide the basis for your response.

Contention 4

C4-1 As to Contention 4(a):

- (a) state the basis for your assertion that costs have not been adjusted for inflation;
- (b) define the "projected time for decontamination" referred to in Contention 4(a) and state the basis for your response;
- (c) describe the method you would consider to be adequate to properly adjust for inflation in determining costs at

the projected time of decontamination and state the basis for your position in this regard;

- (d) apart from the alleged failure to account for inflation, do you contend that costs have been improperly or inadequately estimated in other respects? If so, specifically describe such other inadequacies in cost estimation, state the bases for your response, and describe what you believe to be necessary for a proper and adequate determination of costs for decontamination and decommissioning.

C4-2 As to Contention 4(b):

- (a) do you have reasons to believe that the applicant will not be financially capable of decontaminating and decommissioning the GE Morris facility at the end of the term of the proposed license? If so, state those reasons and provide any documentation in support of those reasons which is available to you.
- (b) Specifically, identify the requirements of 10 CFR § 70.22(a) to which you refer in Contention 4(b) and state the basis for your assertion that the Licensee does not comply with those requirements.

C4-3 As to Contention 4(c);

- (a) define "immediate and/or permanent abandonment of the Morris site" as that phrase is used in Contention 4(c);
- (b) describe the "emergency, accident or other unforeseen event" that you contemplate as making immediate and/or permanent abandonment of the Morris site necessary and state the basis for your assertions that such events could occur at GE Morris and would require immediate and/or permanent abandonment of the site;
- (d) how would an emergency, accident or event necessitating the abandonment of the Morris site affect the decommissioning of the GE Morris facility? Describe in detail the defects in the existing decommissioning plan (Appendix A.7 of the CSAR) which lead you to believe the plan is inadequate in the event of an emergency, accident or event requiring abandonment of the site.

C4-4 As to Contention 4(d);

- (a) state the basis for your assertion in Contention 4(d)(i) that the Licensee may be unable to dispose of LAW vault materials;

- (b) state the basis for your assertion in Contention 4(d)(ii) that it may not be possible to remove residual contamination from waste vaults or other stationary parts of the facility;
- (c) assuming that residual contamination remains on waste vaults or other stationary parts of the facility, do you believe that it is impossible to preclude dispersal of such contamination or to preclude exposure of members of the public to such contamination? If so, state the basis for your belief;
- (d) state the basis for your assertion in Contention 4(d)(iii) that ground water contamination could occur and that such contamination would require maintenance to prevent leaching offsite. State the basis for your assertion that such maintenance must be perpetual in nature;
- (e) state the basis for your assertion on Contention 4(d)(iv) that low-level disposal facilities for the dismantled GE Morris facility and wastes may be unavailable.

Contention 5

C5-1 As to Contention 5(a), describe the accident or emergency that you contend would require the removal of spent fuel from the Morris

spent fuel pool, provide the basis for your assertion that such an event could occur at the facility, and provide the basis for your assertion that such an event would necessitate removal of spent fuel from the Morris spent fuel pool.

C5-2 As to Contention 5(b):

- (a) what is meant by "emergency transportation of irradiated fuel?"
- (b) explain what occurrences, other than the accidents or emergencies described in response to interrogatory C5-1, would require the emergency transportation of irradiated fuel.

C5-3 As to Contention 5(c), describe in detail the tests which you believe should be performed to demonstrate the adequacy of the existing emergency plan.

Contention 6

C6-1 As to Contention 6(a):

- (a) describe the "area," in terms of distance from the Morris facility, for which you believe comprehensive evacuation planning is necessary and provide the detailed basis for your response;



- (b) what is the basis for your assertion that Joliet and Kankakee might need to be evacuated?

C6-2 As to Contention 6(b):

- (a) what is meant by "large numbers of people" as that phrase is used in Contention 6(b)?
- (b) describe the accident or event that you assert would result in the exposure and/or contamination of "large numbers of people" and provide the basis for your assertion that such an accident could occur at the Morris facility.

C6-3 As to Contention 6(c), you state that the Applicant should be responsible for informing area residents "that the possibility of such an accident does exist." Specifically describe the accident or accidents referred to (the response sought is a description of specific accident scenarios rather than a general response such as "any accident requiring evacuation") and provide the basis for your assertion that such accidents could occur.

C6-4 As to Contention 6(d), describe in detail the specific inadequacies in the Applicant's emergency planning which exist with regard to "formation of evacuation plans," "equipping hospitals,"

"training personnel," and "for maintenance of any equipment needed."  
In your view, what more should be done by the Applicant with regard to these matters and why?

Contention 7

C7-1 Do you contend that the proposed renewal of the GE Morris license involves a major federal action significantly affecting the quality of the human environment? If so, describe in detail the environmental impacts you assert will occur from this action and provide the basis for your assertion that such impacts will result. If not, what is the basis for your assertion that an environmental impact statement must be prepared?

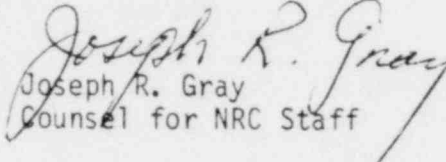
C7-2 An environmental impact appraisal (EIA) on the proposed licensing action was prepared and issued (NUREG-0695) in June, 1980.

(a) Do you believe that that EIA adequately evaluated all of the potential environmental effects of the proposed licensing action?

(b) If the answer to C7-2(a) is "no," describe in detail those environmental effects which were not adequately evaluated, provide the basis for your view that they were not adequately evaluated, and describe the additional evaluation that you believe to be necessary.

- (c) Do you agree with the conclusion reached in the EIA that the proposed licensing action will not result in significant environmental impacts?
- (d) If the answer to C7-2(c) is "yes," are you willing to withdraw Contention 7 in which you assert that an environmental impact statement is required? If not, why not?

Respectfully submitted,

  
Joseph R. Gray  
Counsel for NRC Staff

Dated at Bethesda, Maryland  
this 15th day of July, 1980

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
GENERAL ELECTRIC COMPANY ) Docket No. 70-1308  
 ) (Renewal of SNM-1265)  
(GE Morris Operation Spent Fuel )  
Storage Facility) )

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF INTERROGATORIES TO, AND REQUEST FOR THE PRODUCTION OF DOCUMENTS FROM, INTERVENOR ROREM, ET AL." and "NRC STAFF INTERROGATORIES TO, AND REQUEST FOR THE PRODUCTION OF DOCUMENTS FROM, THE STATE OF ILLINOIS" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk, through deposit in the Nuclear Regulatory Commission's internal mail system, this 15th day of July, 1980:

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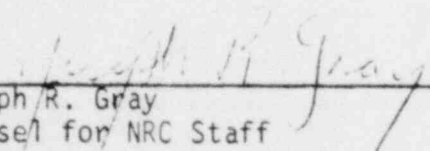
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