May 4, 1982 SECY-82-183

For: The Commissioners

From: Sheldon L. Trubatch
Acting Assistant General Counsel

Subject: REVIEW OF LBP-82-14
(IN THE MATTER OF GENERAL ELECTRIC COMPANY)

Facility: GE Morris Operation Spent Fuel Storage Facility 70-1308, 72-001

Exceptions: None

Purpose: To inform the Commission of a Licensing Board decision for which exceptions have not been filed, [and which, in our opinion, Ex. 5

Time Expires: ~~April 6, 1982~~ 1/

Background: The General Electric Company (GE) has applied for a 20 year extension of its license to store spent fuel at its Morris, Illinois facility. In LBP-82-14,

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1/ However, the Commission has 60 days in which to reconsider a decision not to review an otherwise final order. Florida Power and Light Company (St. Lucie Nuclear Power Plant, Unit 2), CLI-80-41, 12 NRC 650 (1980).

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the Licensing Board granted summary disposition pursuant to 10 CFR 2.749 dismissing all contentions by the only remaining intervenor, the State of Illinois. 2/ This decision was subject to direct review by the Commission because the license at issue is a materials license under Part 72 for which the Rules do not delegate to the Appeal Board the review functions of the Commission. 3/ However, the review time provided by 10 CFR 2.760(a) expired before we became aware of this decision. Accordingly, we have reviewed this decision to determine whether it presents such significant problems or policy issues as to warrant the Commission taking extraordinary action to recapture and review the decision.

2/ This is another example of a materials license case in which the basis for the Licensing Board's jurisdiction to conduct this proceeding was uncertain. Cf. Pennsylvania Power & Light Co. and Allegheny Electric Cooperative, Inc. (Susquehanna Steam Electric Station, Unit 1), unpublished Commission Order (July 22, 1981). However, the Commission appears to have ratified the Board's assumption of jurisdiction by explicitly requiring the application of Part 72 to this ongoing proceeding. 45 Fed. Reg. 74693, 74699 (November 12, 1980).

3/ Moreover, the Commission did not follow its usual practice of delegating the review authority to the Appeal Board on a case-by-case basis.

EX. 5

The Issues

a. Physical Security

A physical security plan is required by Subpart H of 10 CFR Part 72. The State of Illinois challenged certain aspects of GE's physical security plan. The Board formulated those challenges into the following two contentions:

1. The Consolidated Safety Analysis Report (CSAR) does not adequately describe the following:

   b. The risks and consequences of the release of radioactive elements in excess of Part 20 regulations as a result of any of the following accidental occurrences at the Morris facility:

      iv. Sabotage related accidents not analyzed in NEDM-20682. 4/

2. The Physical Security Plan does not meet the requirements of 10 CFR

4/ NEDM-20682 is GE's Sabotage Analysis for Fuel Storage at Morris, November, 1974.

> Part 73. 5/ Further, the CSAR does not provide an adequate assessment of credible risks of sabotage related events inasmuch that the advances in the technology of explosives, which could make sabotage a more probable event, have not been adequately addressed.

The Board found that the State of Illinois had raised no genuine issue of material fact regarding these contentions and granted GE summary judgment on them.

GE contended that the inert nature of spent fuel and the protective barriers provided by the facility structure and storage water make the Morris facility virtually invulnerable to any off-site consequence of sabotage. Moreover, GE prepared a sabotage analysis which included consideration of high-powered explosives. Finally, the rules do not require a sabotage analysis of the kind requested in Contention 2. However, GE's Manager of the Morris facility stated in an affidavit:

> "Recently developed explosives of higher power than those previously analyzed have a potential for only fractional change in the saboteur's ability to remove radioactive materials from the fuel matrix to the air or water."

5/ This sentence was dropped from the Contention because it was offered by other intervenors who were dismissed for failure to respond to discovery requests. The State of Illinois did not adopt this part of Contention 2.

The State of Illinois contended that there were material issues of fact regarding these contentions because the sabotage analysis had not been updated since 1974 and GE had not specified the term "fractional increase" as used in the affidavit as quoted above. Moreover, the State of Illinois submitted an affidavit by Gregory Minor in which he stated that accessibility and nature of the building covering the spent fuel pool made it conceivable that projectiles could penetrate the building and damage the stored nuclear fuel causing a release of radioactive material.

The Staff contended that Part 72 did not require the CSAR to include a sabotage analysis, assess credible risks of sabotage related events, or address advances in the technology of explosives. Moreover, a staff affidavit concluded that studies sponsored by the NRC (but not in evidence) showed that the consequences of sabotage of spent fuel at a facility such as Morris would be low and that there have been no advances in the technology of explosives which could make sabotage a more probable event. Finally, staff contended that Subpart H of Part 72 had been satisfied by GE's Physical Security Plan, Safeguard Contingency Plan, and Security Personnel Training and Qualification Plan. These proprietary documents had been reviewed by the staff and found adequate.

The Board accepted GE's statements of material facts including the statement that more efficient explosives could cause only a fractional change in the amount of radioactive material that

could be released through sabotage. The Board also stated that the Intervenor provided no response to this material fact. Therefore, under the rules, it was deemed admitted. 10 CFR 2.749(a). Beyond that, the Board adopted the staff's position, and noted that the State of Illinois failed to provide either any specific indication of where the CSAR is inadequate or any details about alleged advances in the technology of explosives. Finally, the Board relied on staff's review of GE's documents on physical protection to find that the CSAR included the required description of detailed security measures for the Morris facility.

In our opinion,

EX. 5

However, we believe that

EX. 5

b. Financial Arrangements

The State of Illinois questioned the adequacy of GE's financial arrangements to decontaminate and decommission the Morris facility. Contention 4(b) states:

> There is insufficient assurance that the applicant will be financially capable to meet decontamination and decommissioning costs. Other than a general statement regarding GE's present relative solvency there is no verifiable financial statement to show GE can meet future costs as is required by 10 CFR § 70.22(a). A bond or other assurance of financial capability should be required to provide a guarantee that decontamination and

> decommissioning costs will be fully covered.

Part 72 does not require specific financial arrangements. It requires only that:

> The decommissioning plan shall include the financial arrangements made by the applicant to provide reasonable assurance that the planned decontamination and decommissioning of the ISFSI will be carried out.

10 CFR 72.18(b).

GE contended that it adequately demonstrated financial assurance by:

1. its letter to R. E. Cunningham committing GE to decommission the Morris facility in accordance with the applicable federal laws and regulations; and

2. the relative insignificance of the decommissioning costs in comparison with GE's current resources and proven earning performance.

The staff concluded that GE's commitment and available resources provide reasonable assurance that decommissioning and decontamination of the Morris facility will be carried out in accordance with 10 CFR 72.18(b). The Board found that there was no triable issue of material fact regarding Contention 4(b). By granting GE's motion for summary judgment, the Board also found implicitly that GE's statement of financial assurance was

adequate to satisfy the requirement in 10 CFR 72.18(b).

[ ]

EX. 5

Ex. 5

Recommendation:

Sheldon L. Trubatch
Acting Assistant General Counsel

Attachment:
LBP-82-14

Commissionrers' comments should be provided directly to the Office of the Secretary by c.o.b. Wednesday, May 19, 1982.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Wednesday, May 12, 1982, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

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LBP-82-14

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Andrew C. Goodhope, Chairman
Dr. Linda W. Little
Dr. Forrest J. Remick

SERVED MAR 5 1982

In the Matter of

GENERAL ELECTRIC COMPANY

(GE Morris Operation Spent Fuel
Storage Facility)

Docket Nos. 70-1308 & 72-1 SP

March 2, 1982

DECISION AND ORDER
(Granting Motion For Summary Disposition)

This is a license renewal proceeding in which the Applicant, General Electric Company (GE), seeks a 20-year extension of its existing license to store spent (irradiated) fuel at its Morris, Illinois facility. After the Board granted petitions to intervene and contentions were formulated, extensive discovery was held by all parties. At the conclusion of this discovery, the Applicant filed a motion for summary disposition of all contentions[1/] of the only remaining intervenor in this matter, State of Illinois (Intervenor). With its

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1/ General Electric Company's Motion for Summary Disposition and Memorandum in Support Thereof (Applicant's Motion) dated August 28, 1981.

motion Applicant filed 74 statements of material fact about which it contends there are not genuine issues to be heard by the Board.[2/]

In its response Intervenor opposed summary disposition of any of the contentions.[3/] Intervenor in its statement moved to strike a substantial number of Applicant's statements of material fact on the grounds that some are not properly supported as required by 10 C.F.R. § 2.749, or that some are not completely supported by proper evidence, or that some are premature, or that one, 34, is not a fact but a conclusion of law. The only further support which Intervenor proffers in support of its motion to strike is in its response in opposition to the motion. Each of the contentions will be treated hereafter seriatim. This will include a discussion of Applicant's, Staff's and Intervenor's positions on each contention.

The Intervenor also made no response to a number of Applicant's statements of material fact. The only statement of material fact asserted by Intervenor is "Morris could be abandoned because of an accident at Dresden" (Minor affidavit). This statement is treated hereafter in the Board's ruling on Contention 4.

2/ Statement of Material Facts as to Which There is no Genuine Issue to be Heard (Applicant's Statement).

3/ Response to General Electric's Statement of Material Facts (Intervenor's Statement) and Illinois' Response in Opposition to Applicant's Motion for Summary Disposition (Intervenor's Response), dated September 22, 1981.

The NRC Staff in its answer in support of Applicant's motion[4/] supports the Applicant's motion and recommends that the Board dismiss all contentions since there are no genuine issues of material fact to be heard. The Applicant, in addition on October 2, 1981, filed a reply to Intervenor's Statement and Response.

10 C.F.R. § 2.749 specifically provides that statements of material facts required to be served by the moving party will be deemed to be admitted unless controverted by the statement required to be served by the opposing party. Intervenor's responses set out only one statement of material fact and briefly move to strike most of the Applicant's statement of material facts as not supported or as premature and make no response to an additional number. Whether this approach complies with the rule is at least questionable, however, the Board has reviewed Applicant's statement of material facts and finds that they are properly and fully supported by substantial and competent evidence and also finds that the Intervenor's claims to the contrary are without merit. A discussion of the pertinent statement of material facts and Intervenor's contrary arguments are contained in the Board's rulings on each contention. The Board adopts Applicant's statement of material facts as its own. This statement of material facts, as edited, appears at the end of this decision as Appendix A.

4/ NRC Staff Answer in Support Total of Applicant's Motion for Summary Disposition (Staff Answer) dated September 22, 1981.

The Board is issuing this Order pursuant to its authority granted in 10 C.F.R. § 2.749. We have kept in mind that in order to grant a motion for summary disposition, the record before us must demonstrate clearly that there is no possibility that there exists a litigable issue of fact. Had we had any doubt or felt that parties should be permitted or required to proceed further than the evidentiary showing before us, we would have denied the motion for summary disposition. This is true in our ruling adopting Applicant's statements of material facts and rulings on the contentions.

RULINGS ON CONTENTIONS

Contention 1 alleges:

The consolidated Safety Analysis Report (CSAR) does not adequately describe the following:

(a) The consequences of simultaneous accidental radioactive releases from the Dresden Nuclear Power Station and the Morris Spent Fuel Storage Facility;

(b) The risks and consequences of the release of radioactive elements in excess of Part 20 regulations as a result of any of the following accidental occurrences at the Morris facility: (i) the consequences of an accident caused by a tornado impelled missile; (ii) a lost of coolant accident, alone and in conjunction with an accident which has caused a rift in the building structure; (iii) earthquake related accidents; (iv) sabotage related accidents not analyzed in NEDM-20682.5/

5/ Contention 1(b), as originally admitted, contained further subparts (v) through (ix). These subparts were dismissed (Prehearing Conference Order Dismissing Certain Contentions and Setting Dates for Filing Motions for Summary Disposition dated August 21, 1981).

Applicant's contended material facts 8-12, previously adopted by the Board, are applicable to Contention 1(a). These contended material facts are properly supported by reference to applicable regulations, filings in this proceeding, depositions and an affidavit.[6/]

The Intervenor relies primarily on an accompanying affidavit[7/] to establish genuine issues of material facts. This affidavit addresses the population density surrounding the site, pointing out that accidents at either the Dresden or Morris site have the potential to impact a very large population and warrant special precautions. The affidavit also indicates that "It is conceivable that a Dresden accident could release radioactive material that would contaminate the Morris operation site (only 0.7 miles away) and limit access of personnel to perform necessary maintenance and repair. Further, such an accident at Dresden could result from an initiating event such as a tornado, earthquake, blackout, or sabotage, which would impact the Morris Operation, perhaps even causing accidents and releases there as well. The CSAR has only considered such influences and interactions within the limited range of DBA releases."

6/ Affidavit of Eugene E. Voiland (Voiland) at §§ 2, 3. The Voiland Affidavit is Appendix B to Applicant's Motion.

7/ Affidavit of Gregory C. Minor Concerning Issues Related to Morris Spent Fuel Storage (Minor) attached to Intervenor's Response as Exhibit A.

In response to Applicant's interrogatories [8] questioning the bases for Contention 1(a), Intervenor points to the MHB Report.[9]

The Staff indicates that Contention 1(a) raises no genuine issue of material fact. The Staff believes that the material facts alleged by the Applicant are correct.[10] Further, the Staff supports Applicant's motion that summary disposition on this contention should be granted.

This contention alleges that the CSAR[11] is deficient because it does not "adequately describe" the accidents specified in subparts

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8/ General Electric Interrogatories Propounded to the Intervenor State of Ilinois dated July 15, 1980.

9/ Technical Review of Risk Due to Expansion of the Morris Operation Spent Nuclear Fuel Storage by MHB Technical Associates dated February 1979 (MHB Report). This report does not relate to the licensing action consideration in this current proceeding. It relates to a suspended licensing action concerning previous plans by the Applicant to expand the storage capacity of the Morris Operation. The MHB Report states at page 1-1 that the report "is a study assessing the extent to which the risk to the health and safety of the public is impacted by expansion of MO (Morris Operation)".

10/ Affidavit of A. Thomas Clark (Clark) at p. 2 annexed to NRC Staff Answer.

11/ Consolidated Safety Analysis Report for Morris Operation (CSAR), NEDO-21326C, January 1979. Where applicable, Attachment G to Applicant's amended application for license renewal under 10 C.F.R. Part 72, dated January 12, 1981, and supplements contained information superseding that in the CSAR (Attachment G).

(a) and (b) of the Contention. The regulations in 10 C.F.R. Part 72, "Licensing Requirements for the Storage of Spent Fuel In An Independent Spent Fuel Storage Installation" do not require that the Applicant's CSAR consider particular accidents. 10 C.F.R. § 72.15(a) provides that each application for a license under Part 72 shall include a Safety Analysis Report (SAR) describing the proposed Independent Spent Fuel Storage Installation (ISFSI) for the storage of spent fuel, including how the ISFSI will be operated. According to 10 C.F.R. § 72.15(a)(13), the SAR shall include:

> "An analysis of the potential dose or dose commitment to an individual outside the controlled area from accidents or natural phenomena events that result in the release of radioactive material to the environment or direct radiation from the ISFSI. The calculations of individual dose or dose commitment shall be performed for direct exposure, inhalation, and ingestion occurring as a result of the postulated design basis event."

10 C.F.R. § 72.72(e), "Proximity of Sites," states that:

> "An ISFSI located near other nuclear facilities shall be designed and operated to ensure that the cumulative effects of their combined operations will not constitute an unreasonable risk to the health and safety of the public."

The Dresden Nuclear Power Station (DNPS) is located about one-half mile north northeast of the Morris Operation.[12/] Section 3.3.1 of the CSAR, "Nearby Nuclear Facilities," considers the combined

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12/ Safety Evaluation Report (SER), NUREG-0709, July 1981, §7.8; Clark at 4.

radiological impacts from the Morris Operation and the DNPS and concludes that such impacts are within the requirements of 10 C.F.R. § 72.67.[13/]

The CSAR considers various postulated accidents and estimates of the quantity of radioactive materials released and projected, including the most severe postulated accidents at DNPS and Morris.[14/]

The Staff considered the combined operation of DNPS and Morris in the SER, § 3.7, "Proximity of Sites" and § 7.8 "Interaction of the Dresden Reactors with the Morris Operation." The estimated doses

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13/ Clark at 4; 10 C.F.R. § 72.67 provides that:

"Criteria for radioactive materials in effluents and direct radiation from an ISFSI.

(a) During normal operations and anticipated occurrences, the annual dose equivalent to any real individual who is located beyond the controlled area shall not exceed 25 mrem to the whole body, 75 mrem to the thyroid and 25 mrem to any other organ as a result of exposure to: (1) planned discharges of radioactive materials, radon and its daughters excepted, to the general environment, (2) direct radiation from ISFSI operations and (3) any other radiation from uranium fuel cycle operations within the region.

(b) Operational restrictions shall be established to meet as low as is reasonably achievable objectives for radioactive materials in effluents and direct radiation levels associated with ISFSI operations.

(c) Operational limits shall be established for radioactive materials in effluents and direct radiation levels associated with ISFSI operations to meet the limits given in paragraph (a) of this section."

14/ CSAR § 8.1.2, "Accident Description/Discussion."

from the Morris Operation, under normal conditions,[15] do not make a significant contribution to the 25 mrem whole body dose limit set forth in 40 C.F.R. Part 190 by the Environmental Protection Agency (EPA) for any member of the public.[16]

An accidental release of radioactivity from DNPS would not cause an additional release of radioactivity from the Morris Operation. If there were simultaneous accidents at Dresden and the Morris Operation, the maximum dose to any individual's thyroid would be 100.003 to 150.003 rem. The 0.003 rem contribution from the Morris Operation would be insignificant in comparison with the DNPS contribution and the dose received by an individual located on the DNPS exclusion area boundary would still be within the guidance limits of 300 rem to the thyroid.[17]

The Staff found that the Morris Operation makes an insignificant contribution to the dose to any individual member of the public from combined operation of both facilities and cumulative effects of combined operation of the DNPS and the Morris Operation under normal or accident conditions would not constitute an unreasonable risk to the

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15/ Estimated by the Staff to be approximately 0.00001 of the yearly dose limits for light water reactors under the ALARA concent of 10 C.F.R. Part 50, Appendix I (SER § 3.7).

16/ Clark at 5.

17/ SER § 7.8; Clark at 5-6; 10 C.F.R. § 100.11(a)(1).

health and safety of the public. Thus, the Staff found that the Morris Operation meets the requirements of 10 C.F.R. § 72.72(e).[18/]

The Board finds that the Intervenor has failed to set forth specific genuine issues of material fact regarding the inadequacies of the CSAR relative to the accident analysis requirements of 10 C.F.R. Part 72. Therefore, relative to Contention 1(a), the Board concludes that there is no genuine issue of material fact which is triable.

Applicant's statement alleges fifteen material facts (13-27) as being applicable to Contention 1(b)(i) through 1(b)(iii).

In Intervenor's statement, it moved to strike Applicant's material fact numbers 13-18 and 21-27 as not being properly supported as required by 10 C.F.R. § 2.749. Intervenor moved to strike material fact number 20 as not being completely supported by proper evidence as required by 10 C.F.R. § 2.749. As indicated earlier, Intervenor provides no further analysis or justification for its allegation that the material facts are not properly or completely supported. Intervenor made no response to material fact number 19. The Minor Affidavit provides no further insight into the Intervenor's position, other than as indicated above under the discussion of Contention 1(a), and establishes no genuine issue of material fact relative to Contention 1(b)(i)-(iii).

18/ Clark at 7, SER § 3.7.

The Staff believes that Contention 1(b)(i)-(iii) raises no genuine issue of material fact and that the statement of material facts presented by the Applicant is correct.[19/] The Staff supports Applicant's position that summary disposition of Contention 1(b)(i)-(iii) should be granted.

Contention 1(b) refers to 10 C.F.R. Part 20. However, as the Commission noted in the Supplementary Information accompanying the promulgation of 10 C.F.R. Part 72,[20/] 10 C.F.R. Part 20 is limited to radiation protection concerns associated with normal operation and the means used to control access to areas of potential radiation exposure. When considering unexpected, accidental releases, the

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19/ Clark at p. 2. With respect to Applicant's material fact number 17 Dr. Clark in his affidavit does explain that assuming a tornado missile penetrated the fuel basin structure, entered the basin water and ruptured all fuel rods in six boiling water reactor fuel bundles or four pressurized water reactor bundles, the whole body dose for a person at the site boundary would be less than 0.32% (rather than 0.12%) of the design basis accident dose limit specified in 10 C.F.R. § 72.68(b). Although Dr. Clark agrees with the reasonableness of the statement in material fact number 23, he has not performed a confirmatory calculation. His analyses use the more conservative criteria of assuming that the water boils, not accounting for evaporative cooling, which he considers to be physically more realistic.

20/ 45 Fed. Reg. 74693, at 74696, November 11, 1980.

numerical guidance contained in 10 C.F.R. § 72.68 is utilized for spent fuel storage installations.[21/]

With respect to Contention 1(b)(i), 10 C.F.R. Part 72 requires protection from natural phenomena, with the exception of tornado missiles. In the Supplementary Information accompanying promulgation of Part 72,[22/] the Commission stated:

21/ 10 C.F.R. § 72.68 states that:

Controlled area of an ISFSI.

(a) For each ISFSI site, a controlled area shall be established.

(b) Any individual located on or beyond the nearest boundary of the controlled area shall not receive a dose greater than 5 rem to whole body or any organ from any design basis accident. The minimum distance from the spent fuel handling and storage facilities to the nearest boundary of the controlled area shall be at least 100 meters.

(c) The controlled area may be traversed by a highway, railroad or waterway, so long as appropriate and effective arrangements are made to control traffic and to protect the public health and safety.

22/ 45 Fed. Reg. 74693, at 74698, November 12, 1980.

"Tornado missile protection at reactors is of concern because rupture of recently discharged fuel at a reactor could cause the potential release of volatile short-lived radionuclides, particularly ^{131}I. Since the quantity of ^{131}I present in aged fuel at an ISFSI is reduced a factor of 10^9 due to radioactive decay in the first year after discharge, the potential risk from the rupture of aged fuel is orders of magnitude lower for an ^{131}I release. The radionuclides which could potentially be released as a result of a tornado missile event are long-lived ^{85}Kr and ^{129}I. However,

[FOOTNOTE CONTINUED ON NEXT PAGE]

Nonetheless, both Applicant and Staff considered the effects of postulated tornado missile (e.g., planks, pipes, utility pole, automobile) accidents. The releases and exposures from a postulated tornado missile accident would be very small percentages of the dose guidance given in 10 C.F.R. § 72.68(b) and are acceptable.[23/]

With respect to Contention 1(b)(ii), both the Applicant and Staff have considered the risks and consequences from a release of radioactivity as a result of a loss-of-coolant accident. The CSAR concludes that the probability of excessively high radiation dose rates resulting from loss of fuel basin cooling is quite small and that undetected leakage from the fuel storage basins would not uncover the fuel. The Staff concluded that there can be no sudden loss of large quantities of water from the storage basins at the Morris Operation and any water

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[FOOTNOTE 22 CONTINUED FROM PREVIOUS PAGE]

^{129}I. However, an accident evaluation in NUREG-0575,[5/] § 4.2.3.2, using conservative assumptions demonstrates that the evaluation in NUREG-0575,[5/] § 4.2.3.2, using conservative assumptions demonstrates that the consequences from the release of the nuclides attributable to a tornado missile would not be significant. Hence, a requirement for protection from tornado missiles does not appear to be justified.

5/ Final Generic Environmental Impact Statement on Handling and Storage of Spent Light Water Reactor Fuel, August 1979.

23/ CSAR § 8.8.3; SER § 7.6; Clark at 9.

losses which would occur would be small and nearby water sources are available to replenish any water losses which do occur.24/

The Morris Operation has been designed and constructed to insure that structures, systems and components important to safety can withstand the maximum potential natural phenomena, including earthquakes and tornadoes, to which the Morris Operation may be exposed. Thus, the Morris Operation meets the requirements of 10 C.F.R. Part 72. Moreover, although § 4.1.4 of "the MHB Report," which is cited as the basis for Contention 1(b)(iii), described a "tornado causing reduced water level," very little water would be lost by that mechanism. No mechanism has been identified whereby a rift in the building structure could cause a release of radioactivity in excess of the limits of 10 C.F.R. § 76.68.25/

With regard to Contention 1(b)(iii), both the Applicant and the Staff have considered the ability of the Morris Operation to withstand earthquakes. The Applicant's CSAR gives consideration to the geology and seismology of the Morris Site. Moreover, the Staff concluded in the SER that because the Morris Operation has been designed and constructed to safely withstand the maximum credible earthquakes, no

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24/ CSAR §§ 8.2 and 8.3; SER § 7.3; Clark at 10.

25/ SER § 3.4; Clark at 10, 11 citing National Oceanic and Atmospheric Administration Report, "The Tornado, an Engineering-Oriented Perspective", NOAA Technical Memorandum ERL NSSL-82, § 1.D, December 1977.

releases of radioactivity would be expected as a result of an earthquake.[26/]

As indicated earlier Applicant's material facts 13-27 are adopted. For the reasons stated above, the Board concludes that there are no triable, genuine issues of material fact relative to Contention 1(b)(i)(iii).

Contention 1(b)(iv) will be combined for discussion purposes with Contention 2.

Contention 1(b)(iv) and 2

Contention 1(b)(iv) is stated above.[27/] Contention 2 alleges:[28/]

> The Physical Security Plan does not meet the requirements of 10 C.F.R. Part 73. Furtner, the CSAR does not provide an adequate assessment of credible risks of sabotage related events inasmuch that the advances in the technology of explosives, which could make sabotage a more probable event, have not been adequately addressed.

Applicant's statement alleges five material facts (28-32) as being applicable to Contentions 1(b)(iv) and 2. In Intervenor's statement, it moved to strike Applicant's material facts 28-31 as not being supported as required by 10 C.F.R. § 2.749. Intervenor provided no response to material fact 32.

26/ CSAR § 3.7.4, Appendix B, SER at§ 7.4; Clark at 12.

27/ NEDM-20682 refers to Applicant's Sabotage Analysis for Fuel Storage at Morris, November, 1974.

28/ The first sentence of Contention 2 was dismissed by the Board as indicated earlier in this Order.

Intervenor's response and accompanying affidavit provides little help in refuting Applicant's statement of material facts. It is alleged by the Intervenor that "the Morris Operation is a relatively accessible facility..., site workers have much greater accessibility to the fuel pool..., it is conceivable that external projectiles or missiles could penetrate the thin siding..., a sabateur bent on destruction...would find the Morris Operation fuel pool an easier target than a reactor core...and...the result of such an attack on Morris could be very devastating."[29/] Completely lacking is a refutation of Applicant's material facts, any specific indication of where the CSAR is inadequate, and any mention of the alleged advances in the technology of explosives that are referred to in Contention 2.

There is no requirement in 10 C.F.R. Part 72 that an SAR include a sabotage analysis, or assess credible risks of sabotage related events, or address advances in the technology of explosives. Rather, the Staff has sponsored a series of studies whose purpose is to estimate sabotage consequences and thereby provide a basis for the level of physical protection measures to be required at various kinds of nuclear facilities. The studies indicate that the consequences of sabotage of spent fuel at a facility such as Morris would be low. However, the technical parameters leading to the consequences estimate are dependent on the

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29/ Intervenor's Response at 8; Minor at 4-5.

sabotage scenario assumed and are subject to some uncertainties. Studies sponsored by the NRC have not confirmed the existence of "any advances in the technology of explosives which could make sabotage a more probable event."30/

Although there is no requirement that the CSAR include a sabotage analysis or address advances in the technology of explosives, the CSAR must include a description of detailed security measures for physical protection including design features and physical security plans.31/ The physical protection program for the Morris Operation is described in several Applicant documents.32/ The Staff has reviewed these documents, which are considered to be proprietary under the provisions of 10 C.F.R. § 2.790, and has determined that the provisions of Subpart H of 10 C.F.R. Part 72 have been met.33/

30/ Affidavit of Carl B. Sawyer Regarding Contention 1(b)(iv) and 2 (Sawyer) at 3-5.

31/ 10 C.F.R. § 72.15(15) and Subpart H (Physical Protection) of Part 72.

32/ Physical Security Plans (NEDS-14507-c), September, 1978; Safeguards Contingency Plan (NEDS-14567-C2), October, 1979; Security Personnel Training and Qualification Plan (NEDS-4507-C3), August, 1979; SER § 11.

33/ SER § 11; Affidavit of Russel R. Rentschler Regarding Contentions 1(b)(iv) and 2 (Rentschler) at 2.

As indicated earlier, Applicant's contended material facts 28-32 are adopted. The Intervenor has established no genuine issue of material fact relative to Contentions 1(b)(iv) and 2. The Board concludes that there are no triable genuine issues of material fact relating to contentions 1(b)(iv) and 2.

Contention 3 alleges:

The CSAR underestimates or does not state fully the projected effects on the health of personnel, and their families from occupational exposure to radiation inasmuch as:

(a) The CSAR does not state total whole body exposure to occupational personnel for the proposed licensed life of the Morris facility;

(b) The CSAR does not project expected genetic effects on personnel or to the general population caused by such whole body occupation exposures;

(c) The CSAR includes only irradiated fuel and contaminated basin water as radiation sources. Other tanks and pipes should be included as sources of occupational exposures;

(d) The CSAR does not account for additional radiation exposure to occupational personnel from all anticipated activities at the facility (i.e., fuel disassembly, dry storage or compaction all of which are projected for the near future at Morris);

(e) The CSAR does not address the absence of effective radiation monitoring of the air within the facility resulting from:

(i) No devices to measure radioactive materials in the air;

(ii) No routine procedure to measure Kr 85.

Applicant's contended material facts 33-41 are applicable to Contention 3(a-e). These material facts are supported by reference to

applicable regulations, the CSAR, Applicant's Operating Experience Report (Op. Exp. Rpt.) and a deposition, as well as by NRC Staff affidavits.[34/] Intervenor abandoned that part of the contention referring to "families."[35/] The surviving portion of the contention is directed toward the treatment of occupational exposure in the CSAR.

Intervenor has moved to strike material facts 33, 35, 37, 38, 40, and 41, asserting that these facts are not properly supported as required by 10 C.F.R. § 2.749 and to strike 34 on the ground that it is not a fact but a conclusion of law. Intervenor had no response to 36 and 39.

We deal first with subpart (d) of Contention 3. Intervenor concedes that "If indeed the activities alleged under this contention cannot legally be done under the proposed renewal then summary disposition is appropriate."[36/] Further, Intervenor had no response to Applicant's material fact 36, which deals with 3(d). As

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34/ Operating Experience -- Irradiated Fuel Storage at Morris Operation (NEDO-20969 B2/B3, § 4), January, 1979; Deposition of Eugene E. Voiland taken September 4, 1980 (Voiland Deposition); Clark; and Affidavit of Edward F. Branagan, Jr. (Branagan) on Contention 3(b).

35/ Illinois' Answer to General Electric's Interrogatory No. 14.

36/ Illinois' Response at p. 10.

stated by Applicant[37/] and Staff,[38/] none of the activities described in 3(d) (e.g., fuel disassembly, dry storage, or compaction) would be permitted under the current license or the proposed license renewal. Each of these activities falls within one or more of the categories requiring a license amendment outside the constraints of this proceeding (10 C.F.R. § 72.35(c)). Consequently, the Board concludes that there is no genuine issue of material fact relative to Contention 3(d).

Contention 3(a) and 3(b) deal with whole body exposure and genetic effects. Applicant's material facts 33 and 34 state that radiation exposure to personnel at the Morris Operation is well within the regulatory limits established in 10 C.F.R. Part 20.[39/] They note further that there is no requirement in 10 C.F.R. Part 20 to project cumulative employee exposure for the term of the license and that Part 20 does not address genetic effects.

Supporting Applicant's material facts are the affidavits of Clark and Branagan, the EIA at § 5.5, and the SER at § 6.3. The Voiland deposition is also cited by Applicant in support of these facts. The

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37/ Applicant's motion at 20; Voiland deposition at 37 et. seq; GE response to board question No. 1.

38/ Staff Answer at 19; Clark at 15-16.

39/ Op. Exp. Rpt., Ch. 4.

Staff provided the information sought by Intervenor, i.e., that if receipt of 385 additional tonnes of spent fuel were permitted an estimated 0.02 cancer deaths may occur in the exposed population and about 0.035 genetic disorders may occur in all future generations of the exposed population, these impacts being insignificant in comparison with the natural incidence of cancer and genetic disorders.40/ As pointed out by the Staff, such estimates are not required of applicants or licensees.

Contention 3(c) asserts that the CSAR is deficient in stating that only irradiated fuel and contaminated water are included as radiation sources. Applicant asserts in material fact 35 that, on the contrary, the CSAR and other documentation supporting the license renewal deal with total occupational radiation exposure regardless of its source.41/ The Staff concurs with Applicant.42/ Intervenor's opposition to Applicant, quoted in full, is as follows:

> "Again General Electric only states conclusions with only one passing reference to a sworn statement (Voiland Deposition p. 30). Because General Electric's motion is unsupported it must be denied as to Contention 3(c)."

40/ Branagan affidavit.

41/ CSAR Ch. 7; Op. Ex. Rpt. Ch. 4

42/ Clark at pp. 2, 14, 15.

Intervenor offers no facts or even any specified basis in support of this contention. The Board's review of the relevant documents leads us to conclude that Applicant's material fact 35 is correct and there are no triable genuine issues of material fact relative to Contention 3(c).

Applicant's statement proffers 5 material facts (37-41) as applicable to Contention 3(e). Intervenor moved to strike material facts 37, 38, 40, and 41 as not being properly supported as required by 10 C.F.R. § 2.749; no response was given to material fact 39. Applicant's material facts 37, 38, and 40 are documented by the CSAR.[43/] Material fact 41 is also documented.[44/]

As pointed out by Applicant, contrary to Intervenor's assertion, the CSAR describes three independent capabilities to monitor the presence of airborne radioactive materials at the Morris facility. Further the CSAR[45/] indicates that the Morris facility continuously measures and records the ventilation exhaust air flow rates. Applicant agrees that the Morris facility does not routinely measure Kr-85 because Kr-85 releases are well within

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43/ CSAR §§ 7.3.3 and 7.4 et seq.

44/ Op. Exp. Rpt., Chapters 4 and 5.

45/ CSAR, Table 5-2.

applicable limits[46] and, because of the conditions prevailing in a spent fuel storage pool, are expected to remain so.[47] The Staff supports Applicant's position that summary disposition of Contentions 3(e)(i) and 3(e)(ii) should be granted. Staff cited as supporting documents the SER § 6.4 and the Clark affidavit at 2, 16, and 17. As indicated by the Staff, continuous monitoring of krypton-85 was required at the Morris facility when it was to have been operated as the Midwest Fuel Recovery Plant.[48] Such monitoring is not required under current or requested license conditions. Further, should the continuous air monitoring systems indicate an increase in overall activity levels, a dual sampling system is available for direct measurement of krypton-85.[49] Intervenor offers as opposition to summary disposition of these contentions some vague references to Applicant's documents and a direction to see Minor affidavit at paragraph 7. This five-sentence paragraph is bereft of references. Indeed, there is not even any quantification, but just general statements, i.e., that there is a "large" inventory of radioactive krypton gas in the pool, which could be released "at any time" and appear

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46/ CSAR § 7.3.3.

47/ NUREG-0575, Final Generic Environmental Impact Statement on Handling and Storage of Spent Light Water Power Reactor Fuel, Vol. 1, § 4.2.2.2., pp. 4-15 (August 1979).

48/ Clark at 17.

49/ Clark, at 17, 18.

"anywhere in the vicinity of the pool" or in downstream air. Our review of documents offered by the Applicant and the Staff convinces us that there is no genuine issue of material fact relevant to Contentions 3(e)(i) and 3(e)(ii).

Contention 4

Contention 4 alleges:

(a) There is insufficient determination of ultimate decontamination and decommissioning costs. Costs have not been adjusted for inflation for the projected time of decontamination. CSAR pp. A7-13, A7-14. Without an accurate cost assessment GE cannot make a valid commitment to meet decommissioning costs;

(b) There is insufficient assurance that the applicant will be financially capable to meet decontamination and decommissioning costs. Other than a general statement regarding GE's present relative solvency there is no verifiable financial statement to show GE can meet future costs as is required by 10 CFR § 70.22(a). A bond or other assurance of financial capability should be required to provide a guarantee that decontamination and decommissioning costs will be fully covered;50/

(c) There is no contingency plan to provide decommissioning of the Morris facility should an emergency, accident of other unforeseen event necessitate immediate and/or permanent abandonment of the Morris site;

(d) There is no consideration of possible perpetual care and maintenance due to incomplete decontamination or decommissioning including:

50/ The regulations in 10 CFR Part 72 establish the requirements, procedures, and criteria for the issuance of licenses to possess spent fuel and other radioactive materials associated with spent fuel storage in an ISFSI. Contention 4(b) was admitted prior to the date that the final Part 72 was promulgated. Section 72.18 defines the decommissioning plan requirements of 10 CFR Part 72. Section 72.14(e) defines the contents of an application including general and financial information (45 Fed. Reg. 74693).

(i) inability to dispose of LAW vault material;

(ii) residual contamination of waste vaults or other stationary parts of the facility;

(iii) ground water contamination which would require maintenance to prevent leaching offsite;

(iv) unavailability of offsite low-level disposal facilities for the dismantled facility and wastes.

(e) The CSAR does not provide necessary financial arrangements to provide reasonable assurance that decontamination and decommissioning will be carried out as required by 10 CFR § 72.14(e)(3) and 72.18 in that the applicant's projected costs do not take into account the costs of complete removal of all radioactive materials nor of complete restoration of the facility to unrestricted use.[51/]

Applicant's statement alleges fourteen material facts (42-55) as being applicable to Contention 4. Intervenor moved to strike material facts 42-45 and 47-48 as not being supported by proper evidence, and material facts 50-54 as not being completely supported by proper evidence as required by 10 CFR § 2.749. Intervenor provided no response to material facts 46 and 55. The Intervenor disputes material fact 49 and proffers as a material fact, "Morris could be abandoned because of an accident at Dresden." The Intervenor references the Minor affidavit in support of this material fact. However, paragraphs 8 and 9 of the Minor affidavit appear to refer to Contention 4 but provide no support

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51/ Contention 4(e), previously designated State Additional Contention 1, was added to this proceeding by the Board's Order Ruling on Additional Contentions dated March 16, 1981.

for the Intervenor's proffered material fact.[52/] Thus, the Intervenor's one proposed material fact is not supported and is rejected.

Intervenor's response proffers no other specific material fact as being at issue relative to Contention 4. The Minor affidavit[53/] includes several broad statements about decommissioning costs which do not state specific material facts. With respect to Contention 4(d) the Minor affidavit [54/] indicates that the disposal of residual radioactive material:

> ...may prove difficult in terms of the radioactive contamination from basin water leaks in the past and possibly the future....Some of the radioactive material resulting from the leak initiated by the cask-drop accident is described by G.E. as being in the cracks and crevices of the soil structure beneath the pool or in the perched water in the vicinity of the pool....G.E. has not discussed how these and future leaked radioactive contamination will be disposed of during decommissioning.

None of these statements are supported by reference to any documents or supporting material which are part of this proceeding, or otherwise.

52/ Minor, par. 8 at 5-6.

53/ Minor, par. 9 at 6.

54/ Paragraph 5 of the Minor affidavit suggests that an accident at Dresden might contaminate the Morris Operation site and limit access of personnel to perform necessary maintenance and repair. No reference to abandonment of Morris because of an accident at Dresden can be found.

Applicant's decommissioning plan is described[55/] in the CSAR. The plan provides a general outline of decontamination practices and procedures and residual radioactive material removal. It concludes that the decommissioning costs, estimated at $6,033,000 in 1978 dollars, are small compared to the total assets of the Applicant. Therefore, it is unlikely that Applicant would be unable to meet the associated financial commitment to decommission the facility.

The Staff believes that Contention 4 raises no genuine issue of material fact. The applicable section of 10 CFR § 72.18 "Decommissioning plan, including financing" states:

> (a) Each application under this part shall include a proposed decommissioning plan that contains sufficient information on proposed practices and procedures for the decontamination of the site and facilities and for disposal of residual radioactive materials after all spent fuel has been removed, in order to provide reasonable assurance that the decontamination and decommissioning of the ISFSI at the end of its useful life will provide adequate protection to the health and safety of the public. This plan shall identify and discuss those design features of the ISFSI that facilitate its decontamination and decommissioning at the end of its useful life.
>
> (b) The decommissioning plan shall include the financial arrangements made by the applicant to provide reasonable assurance that the planned decontamination and decommissioning of the ISFSI will be carried out.

55/ Appendix A.7, "Decommissioning Plan."

Based on these criteria, the Staff believes that the information provided by the Applicant and the Staff's analyses show that none of the subparts of Contention 4 either correctly state an inadequacy in the Decommissioning Plan or have any basis in fact.

Contention 4(a): Inflation

The Staff compared the Applicant's decommissioning methods and costs with those contained in the document prepared for the NRC by the Battelle Pacific Northwest Laboratory, "Technology, Safety and Costs of Decommissioning a Reference Nuclear Fuel Reprocessing Plant" (NUREG-0278), which includes a section on the decommissioning costs of spent fuel storage operations. NUREG-0278, referred to in the MHB Report, indicates a total cost of $58,000,000 to dismantle the reference reprocessing plant; however, total decommissioning of the fuel receipt and storage area is $2,500,000. Adjusted for 15% inflation, the 1978 cost would be $3,800,000, which is less than Applicant's 1978 estimate of $6,000,000. Further, the Staff indicates that projected costs due to inflation are meaningless since the Applicant's assets can be expected to increase at roughly the same rate as costs.[56/]

The Staff concluded that there is reasonable assurance that the Applicant's estimate of the costs of decommissioning is conservative, and that the Applicant meets the applicable requirements of 10 CFR § 72.18(b).

56/ SER § 8.5; Affidavit of A. Thomas Clark and Francis P. Cardile on Contentions 4(a), 4(d)(ii) and 4(e) (Clark and Cardile) at 2-4.

Contentin 4(b): Financial Assurance

Applicant is a diversified manufacturer of high technology electrical and related equipment. For the nine months ending September 30, 1980, Applicant's consolidated gross sales were $18.0 billion. Since 1973, Applicant's cash-on-hand balance has increased from $296.8 million to $1,287.4 million on September 30, 1980. Marketable securities increased from $25.3 million to $610.4 million and current accounts receivable increased from $2.2 billion to $4.5 billion.

The Staff concludes that such current resources along with Applicant's commitment that it will have available the resources deemed necessary to satisfy its obligation to decommissioning the Morris facility provide reasonable assurance that decommissioning and decontamination of the Morris facility will be carried out in accordance with the requirements of 10 CFR § 72.18(b).57/

Contention 4(c): Emergency Abandonment

This contention alleges the lack of a contingency plan for decommissioning the Morris Operation following an accident. Based on the Staff's review and evaluation of the types of accidents which could occur at the Morris Operation and of the information presented in the Applicant's CSAR as to decommissioning, the present decommissioning plan and emergency plan are deemed adequate under any credible circumstance.58/

57/ SER § 8.5; Affidavit of Jim C. Petersen on Contention 4(b).

58/ SER 7, § 8.5; CSAR, Appendix A.7; Clark at 18.

Although it is conceivable that, for a short period of time, the Morris Operation could be evacuated in the event of the most severe accident conditions at the DNPS, there is no foreseen circumstance that could cause immediate and permanent abandonment of the Morris site.[59/]

Contention 4(d): Perpetual Care

This contention indicates that the decommissioning plan is inadequate because there is no consideration of possible perpetual care and maintenance due to incomplete decontamination.

The Applicant indicates that the vaults and contaminated pipes, pumps, filters, storage hardware, etc., can be cut up, packaged, and disposed of as low-activity waste. Further, contaminated structures can be decontaminated by sand blasting, acid etching or detergent scrubbing. The Applicant indicated that all licensed radioactive material can be removed from the site.[60/]

The Staff indicates that the Applicant will be able to dispose of the LAW vault material and has described the methods to be used to decontaminate and decommission the vault in the CSAR.[61/] The Staff has determined that these methods are within the state-of-the-art for radio-chemical process operations. The Intervenor's MHB Report, which is cited as the basis for this contention, also describes means of

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59/ SER § 7.8; Clark at 18.

60/ Voiland at 4.

61/ CSAR, § A.7.3.3.1.

disposing of the vault material, and states that the cost and effort to dispose of the vault itself are large but not insolvable.62/

The Applicant has committed to decommissioning the Morris Operation in accordance with then applicable federal laws and regulations. At present, the release of sites for unrestricted use implies a level of decontamination in which the remaining radioactivity no longer poses a threat to the health and safety of the public. Removal of these forms of waste has been demonstrated at various Department of Energy locations. The Staff concludes that there will be no need for perpetual care of the Morris Operation after decommissioning due to residual contamination.63/

The CSAR discusses the leak collection, monitoring and pump-out provisions for the basins, LAW vault, and cladding vault. No leakage has been detected from the LAW tank or the cladding vault. These systems maximize the likelihood that any leaking radioactive materials will be returned to the system, and minimize the likelihood of contaminating the groundwater.64/

The Morris Operation has an independent water sampling program. Water samples are taken from 8 to 10 site monitoring wells and

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62/ Clark at 19; MHB Report Section 6.1.

63/ Clark and Cardile at 2, 4-6.

64/ CSAR, § 5.5.15, 5.6.1.2 and 5.6.2.2; Affidavit of Lewis G. Hulman and A. Thomas Clark on Contention 4(d)(iii) (Hulman and Clark) at 2-3.

analyzed. Results from those water samples have indicated no discharge of radioactive material to the ground water on-site. After decommissioning the site, monitoring wells would be used to assure the removal of all radioactive material which could constitute a threat to the public health and safety, and thus assuring that perpetual maintenance will not be required.65/ Low-level waste disposal sites are available at the present and they are expected to be available in the future. The Low-Level Radioactive Waste Policy Act states that each state is responsible for providing for disposal of low-level waste within its borders. The Department of Nuclear Safety of the State of Illinois has published a notice of proposed rulemaking in the Illinois Register to establish criteria for a low-level waste site in Illinois, noting that it is desirable that the facility be operational by 1986.66/

Contention 4(e): Complete Removal

The Applicant has stated its objective is "to decontaminate the site to a point where continued USNRC licensing is no longer required." The release of sites for unrestricted use does not imply the complete removal of all radioactivity. The Staff has concluded there is reasonable assurance that the Morris Operation will be decommissioned

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65/ Hulman and Clark at 3.

66/ Affidavit of Kitty S. Dragonette on Contention 4(d)(iv) at 2.

in a manner to provide adequate protection of the health and safety of the public in accordance with 10 CFR § 72.18(b).67/

Contention 4 alleges that the decommissioning plan proposed in the CSAR is inadequate for a number of reasons. The Staff SER concludes that the application for license renewal meets the standards and requirement of the Commission's regulations. The Applicant has established material facts as to which there is no genuine issue. The Intervenor has failed to establish a material fact at issue. Therefore, the Board concludes that relative to Contention 4 there is no triable genuine issue of material fact.

Contention 5 alleges:

The Emergency Plan in the CSAR is inadequate in that:

(a) The plan does not specify which emergency procedures will be utilized to unload the spent fuel pool and to transport and/or store irradiated fuel in the event that an emergency should necessitate transfer of the spent fuel from the Morris spent fuel pool.

(b) The CSAR should be supplemented to explain GE's plans for emergency transportation of irradiated fuel.

(c) There is no reference to tests or other means by which it can be determined that the existing emergency plans are adequate. Adequate test programs of both communications systems and procedures should be documented prior to licensing.

Applicant's statement of material facts 56, 57, and 58 relate to contentions 5a, 5b, and 5c, respectively. Intervenor moved to strike

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67/ CSAR, Appendix A, § A.7.2.2; SER § 8.5; Clark and Cardile at 2-4.

57 and 58 on the grounds that they were not properly supported by evidence as required by 10 CFR § 2.749 and 56 on the grounds that it was not completely supported by proper evidence as required by the same regulation. In sum, Intervenor's major thrust in opposing Applicant's motion is that Applicant has not supported its conclusions with evidence and has not met its burden. The only other support for Intervenor's continued grip on this contention is the Minor affidavit at paragraph 10. We note parenthetically that the Minor affidavit is not numbered or outlined or any other way keyed to specific contentions. The Minor affidavit states that in the event the pools at the Morris facility are filled to the point that fuel movement is not possible and that the basin or liner is damaged such that fuel must be removed to facilitate repairs, then there should be a contingency plan for removing, loading, and shipping the fuel to some other place.

Applicant's material fact 56 indicates that the CSAR, chapters 1 and 5, and the Voiland affidavit at paragraph 5 document the procedures for loading fuel from storage into shipping casks and transporting it to a licensed receiver as well as recent experience in utilizing these procedures for a transfer from Morris Operation to the LaCrosse Boiling Water Reactor. Applicant's material fact 57 indicates that procedures for response to radiological transportation emergencies are outlined in Applicant's Transportation Emergency Plan[68/]; however, this is

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68/ NEDO-24785, September 1980.

directed towards Applicant's assistance in the case of nuclear material being shipped to rather than from the Morris Operation. Material fact 58 indicates that Applicant does, in fact, have a program of testing and drills in compliance with applicable regulations.[69/] As conceded by Intervenor in its opposition, "If the evidentiary support cited by General Electric does indeed establish that it is in compliance with all applicable regulations, summary disposition is appropriate."

The Staff supports Applicant's position that summary disposition of all of Contention 5 should be granted.[70/] and agrees that Applicant is in compliance with applicable regulations, in that Applicant's CSAR, Section 9.5, Emergency Plans, and the "Radiological Emergency Plans for Morris Operation" address the provisions of Section IV of Appendix E to 10 CFR Part 50 and that these emergency plans satisfy the requirements of 10 CFR § 72.19. Further, the plan contains testing provisions which include frequent tests of the communications system. The conduct of tests and drills is assured by Staff inspection procedures.[71/]

69/ NEDE-21894, June 1975 as supplemented.

70/ Affidavit of Clark and Fisher Regarding Contention 5. (Clark and Fisher)

71/ SER § 4.9, 8.4; Clark and Fisher at 4 and 5; Section 8.1 of the "Radiological Emergency Plan."

Our review of the documents supporting Applicant's and Staff's position, as well as our consideration of the Minor affidavit at paragraph 10, convinces us that the Morris Operation is in compliance with applicable regulations dealing with emergency plans and procedures, including testing and drilling of these plans and procedures. The information proffered by Intervenor as the basis for its continued hold on this contention offers us no facts which are genuine, material, or triable.

Contention 7 states:[72/]

> The Nuclear Regulatory Commission has an obligation under the National Environmental Policy Act (NEPA) 42 U.S.C. 4332 (1969) to issue an environmental impact statement which will account for environmental impact of normal operation of the Morris facility.

Applicant's statement of material facts 59-61 are applicable to Contention 7. The Staff affidavit[73/] supports Applicant's position that summary disposition of Contention 7 should be granted. Intervenor has moved to strike material facts 59-61 on the ground that they are premature, citing the Board's order of June 5, 1980, p. 19 which deferred a ruling on whether or not an Environmental Impact Statement (EIS) was required until evidence relating to potential environmental impacts was shown on the record. Subsequent to that time, there was opportunity for discovery on that contention, as well

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72/ Contention 6 was dismissed from the proceeding by agreement in the Board's Renearing Conference Order dated August 21, 1981.

73/ Affidavit of Keith R. Price (Price) annexed to NRC Staff Answer.

as time for the Staff to determine whether or not it considered necessary the preparation of an EIS. The Staff's determination was that a negative declaration under 10 CFR § 51.5b was appropriate and consequently issued its Environmental Impact Appraisal (EIA),[74/] now part of the record in this proceeding. Support for the Staff's EIA was provided by the affidavit of Price, a consultant who participated in its preparation. As set forth in the EIA, the Staff has concluded that the proposed licensing action will not significantly affect the quality of the human environment and that there will be no significant environmental impact from the proposed action. The Staff supports Applicant's position that summary disposition of Contention 7 should be granted.

The documents proffered by Intervenor as basis for this contention, where they relate to environmental issues at all, support Applicant's and Staff's position rather than Intervenor's position.

Applicant has cited [75/] a recent appeal board decision which fits the instant proceeding as well or better than the proceeding in which it was rendered:

> "Indeed, the whole purpose in considering primary or secondary impacts of an action is to determine if they have a cause-and-effect relationship with any environmental changes. (Footnote omitted.) Where, as here, there is no change in the environmental status quo that purpose need not be served." (Emphasis in original.)

Consumers Power Company (Big Rock Point Nuclear Plant) ALAB-636, 13 NRC 312 (1981).

74/ NUREG-0695, June 1980.

75/ Applicant's Motion at 38-39.

The Applicant proposes only to continue, without change, the activities it has carried on for nearly 10 years, which activities were licensed subsequent to NEPA and after environmental review under that law. Intervenor has not brought forth, even after ample opportunity for discovery, evidence (or even allegations) of any specific impact which would require issuance of an EIS.

Consequently, we conclude that there are no triable genuine issues of material fact relative to Contention 7.

Contention 8

Contention 8 alleges:

> The CSAR does not provide for the safe control of the facility under off-normal or accident conditions as required by 10 CFR § 72.72(j) in that, it does not provide for adequate access to and from the control room during and after release of radiation in excess of 10 CFR Part 20 within the facility.

Applicant's statement alleges three material facts (62-64) as being applicable to Contention 8. Intervenor moved to strike material facts 62-63 as not being properly supported as required by 10 CFR § 2.749 and moved to strike material fact 64 as not being completely supported by proper evidence.

Intervenor's response proffers no specific material fact as being at issue and the accompanying affidavit[76/] does not address Contention 8 at all. As discussed under Contention 1(b), the terminology in 10 CFR Part 20 is limited to radiation protection concerns associated with normal operations and the means to control access to areas

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76/ Intervenor's Response at 14; Minor affidavit.

access to areas of potential radiation exposure. The guidance in 10 CFR § 72.68, "Controlled Area of an ISFSI," covers releases of radiation from an ISFSI resulting from accident conditions.

Contrary to the assertion in Contention 8, 10 CFR § 72.72(j) does not require that a SAR "provide for access to and from the control room during and after release of radiation in excess of 10 CFR Part 20 within the facility." Rather, 10 CFR § 72.72(j) provides that the control room or control room areas should be designed to provide safe control of the ISFSI under off-normal or accident conditions.[77/]

> "Control Room or Control Areas. A control room or control areas shall be designed to permit occupancy and actions to be taken to monitor the ISFSI safely under normal conditions, and to provide safe control of the ISFSI under off-normal or accident conditions."

The Commission, in the Supplementary Information accompanying the promulgation of 10 CFR Part 72, recognized that:

> "The safety of an ISFSI (Independent Spent Fuel Storage Installation) is achieved by static means, primarily its configuration. Its safety is not dependent on dynamic reactions to the manipulation of controls like a reactor."[78/]

The Applicant's criteria for accessibility of equipment during emergencies and control room access are stated in its CSAR.[79/] The Staff considered the extent of the impact of any credible accident which could occur at the Morris Operation and determined that no

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77/ 10 CFR § 72.72(j) states:

78/ 45 Fed. Reg. 74693, at 74698, November 12, 1980

79/ CSAR § 4.2, Sec. 4.3.1

emergency would inhibit access to any structure, system or component because the severity of radiological impact caused by any credible accident is low.80/

The control room at the Morris Operation can be entered by any of three doors. Access to the main building is possible from two principal entrances and from any of three other doors accessible by an exterior staircase. Once inside the building there are a number of ways to get from any of the building entry doors to any of the control room doors. Even so, occupation of the control room is not necessary for the safe operation of the facility. At the current heat generation of the fuel coolant pumps and ventilation fans could be turned off and it would take over six months for the water to evaporate down to the top of the fuel. The water temperature during that time would not exceed 120°F.81/

Contention 8 addresses the effect of control room access during and after release of indication within the facility. However, even if it was necessary to evacuate the Morris Operation for external reasons, such as under the most severe accident conditions at the Dresden reactors, occupation of the control room at the Morris Operation would not be necessary.82/

80/ SER § 3.9.

81/ Voiland at 6-7.

82/ SER §§ 3.12, 7.8; Clark at 21.

The Board concludes that there is no triable genuine issue of material fact relative to Contention 8.

Contention 9 states:

> Applicant's operator training and certification program is inadequate to insure safety as required by 10 CFR Part 72, Subpart I in that Applicant's program fails to:
>
> (a) Establish any minimum academic requirement; and
>
> (b) Establish any criteria or numerical standards for passage or failure of testing and verification requirements.

Applicant's statement of material facts 65-66 are applicable to Contention 9. Material fact 65 states that Applicant has submitted to the NRC its plan for operator training and certification at Morris operation consistent with 10 CFR § 72.92, supporting this statement with reference to the Voiland affidavit at paragraph 7, the SER at § 8.3.2., and Appendix E to the Motion for Summary Disposition. The Staff supports Applicant's Motion for Summary Disposition.[83/] Intervenor nevertheless moves to strike this material fact as not being completely supported by proper evidence as required by 10 CFR § 2.749. Material fact 66 states that Morris Operation personnel and supervisors are trained, tested, certified and regularly retrained and recertified, supporting this statement with the Voiland affidavit, paragraph 7. Intervenor had no response to this material fact.

In this proceeding the Applicant submitted under oath its Operator Training and Certification program, page F-4 (Attachment F to General

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83/ Staff Answer at p. 34, Clark at 2.

Electric's Application for a license under 10 CFR Part 72). This document indicates that passing grades must be attained on both written and walk-through examinations.

Intervenor disclaims any attack on the regulations in its response to Contention 9.[84/] However, the Board finds it difficult to interpret its opposition as being anything other than an attack on the adequacy of the regulations. We observe that Applicant has complied with the regulations as they are stated; Staff agrees; and Intervenor, by its own admission, states that "(t)here may be no facts in dispute" on this issue. However, Intervenor urges that "as a matter of law and logic summary disposition cannot be granted in favor of General Electric." The Board cannot find any genuine issue as to any material fact relevant to Contention 9 which is triable.

Contention 10 alleges:

> Applicant's Technical Specifications do not comply with 10 CFR §§ 72.16 and 72.33 in that nothing therein precludes applicant from receiving, handling and storing damaged spent fuel and nowhere has Applicant identified, analyzed or evaluated such receipt, handling or storage of damaged spent fuel in accordance with any section of 10 CFR Part 72.

Applicant's statements of material facts 69, 70, and 71 are pertinent to this contention. Intervenor made no response to 69 or 71 and 70 is objected to as not properly supported.

Intervenor's response proffers no material statement of fact in issue and only states that the Voiland affidavit says that Morris has

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84/ Intervenor's response at 14.

the capability of storing most damaged spent fuel without any adverse impact and that since "most" is not defined or limited in any way, Applicant has not met its burden and summary disposition must be denied.85/

As the Staff points out, nothing in 10 CFR § 72.16 or § 72.33 prohibits the receipt of "damaged" spent fuel at the Morris Operation. However, the Applicant has proposed Technical Specification 4.8.1, which requires an analysis of the coolant from the the first cask flush to determine if the contamination is within the limits of 10 CFR § 71.35(a)(4). Technical Specification 4.8.1 also provides that if these limits are exceeded, the fuel in the cask shall be assumed to have failed, and action shall be taken in accordance with established procedures. Section 7.3.2 of the CSAR provides that if damaged fuel should be discovered special handling procedures will be followed and that defective fuel would be canned or otherwise contained.86/

The Board finds that the applicant's statements of material facts are correct and are supported by the Voiland affidavit and that damaged spent fuel can be safely stored at Morris in accordance with Part 72 without adverse impact.

The Board concludes that there is no triable genuine issue of material fact relative to Contention 10.

85/ Intervenor's Response at 15-16.

86/ Clark at 23-24.

Board Question No. 1

This Board question sought information as to what activities would or could be performed at the Morris site under a license extension as requested. This question and its three subparts have been fully answered by the Applicant and the Staff. There remains no issue before the Board.

Conclusion

It is concluded that there are no genuine issues of material facts to be heard and decided. The Applicant's motion for summary disposition is granted. The record before this Board is closed and the matter is referred to the Director, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission for appropriate action.

IT IS SO ORDERED.

FOR THE ATOMIC SAFETY
AND LICENSING BOARD

Andrew C. Goodhope

Andrew C. Goodhope, Chairman
ADMINISTRATIVE JUDGE

Linda W. Little

Dr. Linda W. Little
ADMINISTRATIVE JUDGE

Dr. Forrest J. Remick
ADMINISTRATIVE JUDGE

Dated at Bethesda, Maryland,
this 2nd day of March, 1982.

Appendix A

MATERIAL FACTS AS TO WHICH THERE
ARE NO GENUINE ISSUES TO BE TRIED

1. General Electric is a corporation organized under the laws of the State of New York with its executive offices in Fairfield, Connecticut. The headquarters for General Electric's Nuclear Energy Operations is in San Jose, California. General Electric owns and operates the Morris Operation. (Att. G. § 1.1.1; CSAR § 9.2.)

2. Morris Operation is located in Grundy County, Illinois, about seven miles east of Morris, Illinois and approximately 65 miles southwest of Chicago, Illinois. (Att. G § 1.1.2)

3. The site of the Morris Operation was selected because of its remoteness from large population centers, and to take advantage of geographic features contributing to the seismic, hydrological and meteorological safety of the facility. (Att. G § 3.9)

4. On August 23, 1974, the Atomic Energy Commission issued a revised materials license No. SNM-1265, permitting General Electric to receive, possess, and store special nuclear materials at the Morris Operation and to transfer such materials to persons authorized to receive them. The license had an expiration date of August 31, 1979. (See License SNM-1265.)

5. On February 27, 1979, General Electric filed a timely application for a renewal of license SNM-1265. (Letter of 2/27/79 to R. E. Cunningham from D. M. Dawson.)

6. The Morris Operation has a capacity to store about 700 metric tons (heavy metal) of nuclear fuel. As of July 1, 1981, about 315 metric tons were in storage at the facility.[1/] (Op. Exp. Rpt., ch. 1.)

1/ About one metric ton (8 bundles) of fuel from the LaCrosse Boiling Water Reactor was returned to LaCrosse in June, 1981, reducing the amount in storage reported in the Op. Exp. Rpt., NEDO-209698, January 1979, ch. 1.

7. For almost ten years, General Electric has demonstrated its ability to operate Morris Operation in a manner that controls occupational radiation exposures and concentrations of radioactive material in effluents to the requirements to 10 C.F.R. Part 20, under the philosophy of reducing exposure to as low as is reasonably achievable. (Op. Ex. Rpt. ch. 4 and 5.)

8. The conditions required for the release and dispersal of significant quantities of radioactive materials are not present during normal fuel storage operations or under design-basis accident conditions at Morris Operation. This is due to the low heat generation rate of spent fuel with more than one year of decay before storage, and the low inventory of volatile radioactive materials available for release to the environs. (Final Rule, 10 C.F.R. Part 72, preamble at page 5.)

Contention 1(a): Dresden/Morris Simultaneous Accidents

9. Studies have shown that the water basin storage of spent fuel presents an extremely low risk of serious release of radioactive material. (Generic Environmental Impact Statement on Handling and

Storage of Spent Light Water Power Reactor Fuel, NUREG-0575, August, 1979, ch. 4.)

10. Any accident at Morris Operation, such as a fuel drop accident, would contribute an extremely low additional dose to that from a reactor accidental release. Of the credible accidents analyzed for Morris Operation, the maximum whole body dose for a person at the Morris site boundary would be less than 20 mrem whole body and less than 1 mrem thyroid. (CSAR § 8.7.2.1; SER § 7.5)

11. No credible accidents have been postulated that would have consequences more severe than those analyzed in the CSAR. (Att. G ch. 8; SER § 7.9)

12. No credible event which could occur at Dresden would affect the ability of Morris Operation to store fuel safely. (Att. G § 8.1.2; SER § 7.8; Voiland Deposition, 89 et seq.)

Contention 1(b)(1): Tornado-impelled Missiles

13. The fuel storage basins are constructed of reinforced concrete poured against rock, are stainless steel-lined, and water-filled to a depth of 28.5 feet. Fuel is contained in either of two types of stainless steel "baskets" which hold, respectively, four (PWR) or nine (BWR) bundles in a square array for movement and storage. Baskets are latched in a mounting frame, providing about 14 feet of water over the top of the fuel bundles. (CSAR ch. 5)

14. An extensive and conservative analysis of tornado effects and resultant missile development is included in the CSAR. (CSAR § 4.2.2.2)

15. Analyses of the effects of credible tornado-impelled missiles, such as a segment of a telephone pole, or a small automobile, conclude that these missiles cannot penetrate even the basin liner, other than a minor puncture at a shallow depth, which would not seriously impair the basin's effectiveness as a containment. (CSAR § 8.4)

16. Using conservative assumptions, an analysis of storage basin conditions concludes that credible tornado impelled missiles, such as a segment of a telephone pole, or a small automobile, could damage some fuel storage baskets or fuel bundles but would not result in the release of a significant amount of radioactive materials to the environment. (CSAR § 8.8; SER § 7.6.)

17. Even assuming that a missile penetrated the basin structure, entered the basin water and ruptured all fuel rods in six boiling water reactor fuel bundles or four pressurized water reactor fuel bundles, the whole body dose for a person at the site boundary would be less than 0.12% of the design basis accident dose limit specified in 10 C.F.R. § 72.68(b). (EIA for Morris Operation, NUREG-0695, June, 1980 at § 8.1.1; CSAR ch. 8; SER ch. 7.)

Contention 1(b)2: Loss of Coolant

18. The spent-fuel basin at Morris Operation contains approximately 680,000 gallons of water. (Commentary on Spent Fuel Storage at Morris, NUREG-0956, July, 1979, at 7.)

19. The Morris Operation maintains a makeup water supply at all times between 10,000 and 20,000 gallons. Moreover, the Morris

Operation has essentially an unlimited quantity of raw water from its site wells. Additionally, Morris Operation has a cooperative agreement with Dresden Nuclear Power Station to make available substantial amounts of demineralized water in case of emergency. (Voiland Affidavit at ¶ 3.)

20. The basin is constructed in low-porosity rock in an area where the natural hydrology forms a hydrostatic barrier against leakage below the top of the stored spent fuel. This barrier is a result of the low permeability of the rock which limits the flow of water in the rock to very low velocities. This results in the perched water level being higher than the top of the fuel. (Voiland Affidavit at ¶ 3; CSAR ch. 5.)

21. The fuel storage basin at Morris is equipped with two independent systems for indicating loss of basin water, the basin-water level system, which is sensitive to a drop in basin water depth of about two inches (a loss of about 4,000 gallons of water), and the leak detection system, which is sensitive to the accumulation of just 40 gallons. (Commentary on Spent Fuel Storage at Morris Operation, 9.)

22. The water collected in the leak detection system can be emptied into the Morris Operation's low activity waste vault. (Id.)

23. The basin cooling system is not critical to the safety of the fuel storage system; in the event of complete failure of the cooling system, and with design maximum spent-fuel heat output, the water

temperature would equilibrate (due to evaporation-cooling) at about 170° to 190°F depending upon atmospheric conditions and basin content.[2/] (Att. G § 5.5.3.2.)

24. There are no piping penetrations in the basin which, if opened, could drain the basins, and there are no potential paths in the extant piping for pumping or siphoning more than two feet of water from the basins. These provisions make it practically impossible -- whether accidentally or intentionally -- to drain basin water. (Att. G § 8.3.)

25. Other than damage to the basin enclosure (i.e., sheet metal walls and roofs), no accident has been identified that would cause a rift in the building structure. (CSAR ch. 8; SER § 7.4.)

26. All fuel stored at Morris Operation has been cooled for at least one year after discharge from the reactor core. (Att. G § 4.1.1.)

Contention 1(b)(3): Earthquake

27. The Morris Operation has been designed and constructed to earthquake criteria of 10 C.F.R. Part 72. (CSAR § 4.2.4; Att. G § 7.4.)

Contention 1(b)(4): Sabotage

See paragraphs regarding Contention 2 below.

2/ In fact, the actual equilibrium temperature under presently existing circumstances would be less than 120°F because the fuel in storage has been subjected to substantially longer decay or lower reactor exposure than postulated in the CSAR analysis. (Voiland, ¶ 6.)

Contention 2: Sabotage

28. The CSAR includes extensive and conservative analyses of the effects of various mishaps on the Morris Operation, including those which could be produced by natural phenomena and accidents. These are considered regardless of cause, sabotage or otherwise. The effects of these mishaps would not be made significantly more severe by credible acts of sabotage. (CSAR ch. 4 and 8; Att. G.)

29. In particular, the separate sabotage analysis includes extensive and conservative consideration of mishaps peculiar to sabotage situations, including underwater explosions, removal of fuel from the basin, and interference with loaded casks. (Sabotage Analysis for Fuel Storage at Morris, NEDM-20682, November, 1974.)

30. Further, the separate Physical Security Plan includes planning to deter sabotage, and mitigate consequences of sabotage events. (Physical Security Plan, NEDS-14507, December, 1979; SER ch. 11.)

31. The fuel-handling at Morris is performed with a crane system that always uses rigid tools which make it incapable -- whether accidentally or intentionally -- of raising fuel out of basin water, or even above the specified minimum depth of 9 feet water cover. (CSAR ch. 5; SER § 4.1.1.)

32. More efficient explosives than those considered in General Electric's sabotage analysis could cause only a fractional change in the amount of radioactive materials released in a sabotage attempt. (Voiland, ¶ 4.)

Contentions 3(a)(b): Whole-Body Exposure and Genetic Effects

33. Radiation exposure, including whole-body exposure of personnel at the Morris Operation, is well within the regulatory limit established in 10 C.F.R. Part 20. (Op. Exp. Rpt. ch. 4.)

34. There is no requirement in 10 C.F.R. Part 20 to project cumulative employee exposure for the term of the license. Genetic effects are not addressed in Part 20. (10 C.F.R. Part 20.)

Contention 3(c): Radiation Sources

35. The CSAR and documentation supporting the license renewal contain discussions of total radiation exposure to employees present at the Morris Operation irrespective of the source of the radiation. (CSAR ch. 7; Op. Exp. Rpt. ch. 4.)

Contention 3(d): Dry Storage

36. Neither disassembly, dry storage, nor compaction are permitted at the Morris Operation under the existing license or requested license renewal. (General Electric's Response to Board Question 1.)

Contention 3(e): Air Monitoring and Kr 85

37. The Morris Operation maintains fixed air-monitoring devices that continuously sample and measure airborne radioactive materials, and are equipped to alarm when predetermined concentrations are exceeded. (CSAR § 7.4 et seq.)

38. Material collected in the ventilation system filters at Morris is periodically subjected to radiometric analysis. (Id.)

39. Portable air samplers are regularly used to make spot checks of airborne radioactive materials. (Voiland Deposition at 37.)

40. Analysis in the CSAR establishes that the Morris Operation's releases of krypton-85 are well within applicable regulatory limits (CSAR § 7.3.3.)

41. Environmental monitoring and other data obtained under Morris Operation radiological control and monitoring programs demonstrate that releases have been only a fraction of allowable limits. (Op. Exp. Rpt. ch. 4 and 5.)

Contention 4(a): Inflation

42. The estimated cost of decommissioning the Morris Operation is calculated in the CSAR in terms of 1978 dollars. (CSAR Appendix 7.)

43. The cost of decommissioning as estimated in the CSAR can be projected to any future date in a simple mathematical operation by application of standard escalation factors. (See, e.g., "Assuring the Availability of Funds for Decommissioning Nuclear Facilities," Draft, NUREG-0584 Rev. 2, at 7; SER § 8.5.)

Contention 4(b): Financial Assurance

44. General Electric Company is committed to carry out the decommissioning of the Morris Operation in accordance with the applicable federal laws and regulations. (Letter of 4/15/80 to R. E. Cunningham from B. Wolfe, reproduced at CSAR Appendix 7, A. 7-15.)

45. The cost of decommissioning the Morris Operation, as calculated in the CSAR, is estimated to be about $6,033,000 in 1978 dollars. (CSAR Appendix 7.)

46. Even assuming the most unfavorable conditions, the cost of decommissioning the Morris Operation is estimated at "somewhat under" $58,000,000. (MHB Report.)

47. Even assuming this most unfavorable estimated decommissioning cost to be accurate, it amounts to less than one percent of General Electric's 1979 retained earnings account. (Moody's Investor's Service, 1980.)

48. General Electric's current resources and proven earning performance are significantly in excess of the estimated cost to operate the Morris facility and estimated decommissioning costs. These estimated costs will likely be increased by inflation over time as will the revenues and corporate resources of General Electric. (CSAR Appendix 7; SER § 8.2.)

Contention 4(c): Emergency Abandonment

49. There is no credible reason that the Morris Operation would ever have to be abandoned on an emergency basis. (Voiland Deposition at 89.)

50. Even if the Morris Operation had to be evacuated for extended periods, there would be no impact on its ability to store fuel safely. (Voiland Deposition at 90-91; Att. G ch. 8.)

Contention 4(d): Perpetual Care

51. Material from the LAW vault can be disposed of using existing technology at licensed waste burial facilities. (CSAR Appendix 7; MHB Report.)

52. Technology exists to decontaminate vaults and related structures by acid etching and detergent scrubbing (CSAR Appendix 7; MHB Report.)

53. Perched water contamination would not occur in or after the decontaminatin process. (CSAR Appendix B.10 and B.12; MHB Report.)

54. Pipes, pumps, filters, storage hardware and the like can be cut up, packaged and treated as low activity waste. (CSAR Appendix 7; MHB Report.)

Contention 4(e): Complete Removal

55. Technology exists to completely remove from Morris Operation all licensed radioactive materials related to spent fuel storage. (Voiland, ¶ 5.)

Contention 5(a): Unloading

56. Procedure exist for loading fuel from storage into shipping casks and transporting such fuel to a licensed receiver. These procedures were recently applied to a transfer of about one ton of fuel from Morris Operation to the LaCrosse Boiling Water Reactor. (CSAR ch. 1 and 5; Voiland, ¶ 5.)

Contention 5(b): Transport

57. The General Electric Spent Fuel Services Operation Transportation Emergency Plan outlines procedures for response to radiological transportation emergencies involving General Electric property, or the property of those having cooperative agreements with General Electric, or where General Electric's assistance is requested. (Transportation Emergency Plan, NEDO-24785, September, 1980.)

Contention 5(c): Testing

58. General Electric's Radiological Emergency Plan outlines a program of testing and drills consistent with applicable regulations. ("Radiological Emergency Plan for Morris Operation," NEDE-21894, June 1975, as supplemented.)

Contention 6

This contention has been abandoned by the Intervenor.

Contention 7: Environmental Impact Statement

59. The license renewal sought by General Electric in this proceeding is only to continue without any change whatever the spent fuel receipt and storage operation which it has conducted at Morris for almost ten years. (Answer to Board Question 1.)

60. Operation of the Morris Operation to date has had no measurable harmful effect on the environment. (Op. Exp. Rpt.; "Commentary on Spent Fuel Storage at Morris Operation".)

61. Continued operation of the Morris Operation is expected to have no impact on the environment which would justify issuance of an Environmental Impact Statement. (EIA for Morris Operation, NUREG-0695, June, 1980.)

Contention 8: Control Room

62. There are several access routes through the main building to the control room. (CSAR Appendix 14.)

63. The control room is not vital to safe operation of Morris Operation since the noncritical nature of all control systems and

the slow development of emergency conditions permit the establishment of decentralized control. (Att. G § 5.5.5.4; CSAR ch. 5; SER § 3.12.)

64. Even if it should be necessary to evacuate the facility for some period, the safety of fuel in storage would not be compromised. (Att. G ch. 8; SER § 3.12; Voiland, ¶ 6.)

Contention 9: Operator Training and Certification

65. General Electric has submitted to the NRC its plan for operator training and certification at Morris Operation consistent with 10 C.F.R. § 72.92; that regulation does not require the plan to include either minimum academic requirements or standards for tests and verification requirements. (See Appendix E to Motion for Summary Disposition; SER § 8.3.2; Voiland, ¶ 7.)

66. Morris Operation personnel and supervisors are trained, tested, certified and regularly retrained and recertified. (Voiland, ¶ 7.)

Contention 10: Damaged Fuel

67. All fuel stored at Morris Operation has been cooled for at least one year after discharge from the reactor core consistent with 10 C.F.R. § 72.3(v). (Att. G § 4.1.1.)

68. The one-year decay stipulation provides assurance that no short-lived radionuclides are present, and the levels of volatile radioactive materials are very substantially reduced. (Preamble to Part 72, paragraph 7.)

69. There is no known damaged fuel presently in storage at Morris, and there is none expected to be stored in the future. (Voiland Deposition at 87; Voiland, ¶ 8.)

70. The CSAR and proposed Technical Specifications do contain provisions for consideration of receipt and storage of damaged fuel, if these actions should become necessary. (CSAR ch. 5 and 7; Tech. Specs. § 4.7.)

71. Damaged spent fuel, which has been discharged from a reactor for more than one year, can be safely stored at Morris Operation without any adverse impact on the public health or safety or on the health or safety of personnel. (Voiland, ¶ 8.)

Board Question No. 1(a): Activities Contemplated

72. The license renewal sought by General Electric in this proceeding is only to continue without any change whatever the spent fuel receipt and storage operation which has been conducted at Morris for almost ten years. (Answer to Board Question No. 1.)

73. No dry storage, fuel disassembly or compaction is allowed under the license as presently issued or as it would be renewed. (Id.)

Board Question No. 1(c): Changes, Tests and Experiments

74. General Electric will comply with 10 C.F.R. § 72.35. (Answer to Board Question No. 1.)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

[illegible] ELECTRIC COMPANY

Docket No.(s) [illegible]

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document(s) upon each person designated on the official service list compiled by the Office of the Secretary of the Commission in this proceeding in accordance with the requirements of Section 2.712 of 10 CFR Part 2 - Rules of Practice, of the Nuclear Regulatory Commission's Rules and Regulations.

Dated at Washington, D.C. this
5th day of March 1982.

Peggy A. Laurinsky
Office of the Secretary of the Commission

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
GENERAL ELECTRIC COMPANY	)	Docket No. 70-1308
	)	
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