U. S. NRC SAFETY EVALUATION REPORT ON
WESTINGHOUSE AMENDMENT REQUEST FOR APPROVAL OF HEMATITE
LICENSE APPLICATION AND ASSOCIATED
SUPPORTING DOCUMENTS

October 2011

Contributors
John Hayes
Tamara Powell
Sheena Whaley
## Contents

1.0 INTRODUCTION .......................................................................................................................... 1

1.1 NAME, ADDRESS AND CORPORATE INFORMATION .............................................................. 1

1.2 SITE LOCATION .......................................................................................................................... 1

1.3 LICENSE NUMBER AND PERIOD OF LICENSE ....................................................................... 1

1.4 POSSESSION LIMITS .................................................................................................................. 1

1.5 AUTHORIZED ACTIVITIES .......................................................................................................... 4

1.6 EXEMPTIONS AND SPECIAL AUTHORIZATIONS ................................................................. 4

1.7 FREQUENCIES ......................................................................................................................... 9

1.8 DECOMMISSIONING CHANGES .............................................................................................. 9

2 ORGANIZATION AND ADMINISTRATION ................................................................................. 10

3 RADIATION PROTECTION ............................................................................................................. 10

4 NUCLEAR CRITICALITY SAFETY ............................................................................................... 10

5 EFUENT CONTROL AND MONITORING PROGRAM AND ENVIRONMENTAL MONITORING PROGRAM .......................................................................................................................... 11

6 RADIOACTIVE WASTE MANAGEMENT ......................................................................................... 11

7 DECOMMISSIONING PLAN ........................................................................................................... 11

8 EMERGENCY MANAGEMENT ........................................................................................................ 11
1.0 INTRODUCTION

By letter dated August 12, 2009, Westinghouse Electric Company, LLC (WEC) submitted a request for approval of the Westinghouse Hematite Decommissioning Plan (DP) [ADAMS Nos. ML092330123, ML092330125, ML092330127, ML092330129, ML092330131, and ML092330132]. In conjunction with the submittal of the DP, WEC also submitted a proposed revision to its license. Subsequently, WEC submitted additional revisions dated November 17, 2010 (ML103230327), June 10, 2011 (ML11171A407), and July 5, 2011 (ML111880290). Each of the above noted subsequent submittals replaced the previously submitted version in its entirety. The July 5, 2011, revision is the subject of this Safety Evaluation Report (SER).

1.1 NAME, ADDRESS AND CORPORATE INFORMATION

WEC proposed no change to this section.

1.2 SITE LOCATION

WEC proposed no change to this section.

1.3 LICENSE NUMBER AND PERIOD OF LICENSE

WEC proposed no change to this section.

1.4 POSSESSION LIMITS

WEC proposed the following revised possession limits for the Hematite License and this Section of the license application.

<table>
<thead>
<tr>
<th>Item</th>
<th>Material</th>
<th>Form</th>
<th>Maximum Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Uranium enriched to a maximum of less than 10 weight percent in the U-235 isotope</td>
<td>Any (including only metal powders existing at the Hematite Site on July 1, 2001)</td>
<td>10,000 kilograms U-235</td>
</tr>
<tr>
<td>B</td>
<td>Uranium enriched greater than or equal to 10 weight percent and less than 20 weight percent in the U-235 isotope</td>
<td>Any (including only metal powders existing at the Hematite Site on July 1, 2001)</td>
<td>9,999 grams U-235</td>
</tr>
<tr>
<td>C</td>
<td>Uranium enriched greater than or equal to 20 weight percent in the U-235 isotope</td>
<td>Any (including only metal powders existing at the Hematite Site on July 1, 2001)</td>
<td>4,999 grams U-235¹</td>
</tr>
</tbody>
</table>

¹ License conditions for Category III HEU (for less than 1000 grams U-235) and Category II HEU (1000 to 4999 grams of U-235) are defined in the Fundamental Nuclear Material Control Plan and the Physical Security Plan.
### D Uranium (natural or depleted)
- Any (including only metal powders existing at the Hematite Site on July 1, 2001)
- 2,000 kilograms

### E Co-60
- Sealed Sources
- 40 millicuries total

### F Cs-137
- Sealed Sources
- 500 millicuries total

### G Byproduct Material including Am-241
- Any
- 400 microcuries total

### H Special Nuclear Material, Source and Byproduct Material as residual contamination
- Any
- All residual contamination existing at the Hematite site on July 1, 2001

The proposed revisions modify the possessions limits or permissible forms of the material identified in Items 6 – 8 of the Hematite License. Whereas Items 6.A and 6.B originally addressed uranium enriched to 5 weight percent in U-235 and uranium enriched to any enrichment in the U-235 isotope, WEC chose to distinguish between three enrichment categories for U-235 in the revised license. These three categories would now be: A – less than 10% enrichment; B – greater than 10% but less than 20%; and C – greater than 20%. In addition, WEC added a footnote to the Possession Limits that license conditions associated for Category III highly enriched uranium (HEU) and Category II HEU would be defined by the Fundamental Nuclear Material Control Plan and the Physical Security Plan. WEC also proposed altering the form that the material might be in for previous type material Items A and B. Whereas the present license allows any chemical or physical form excluding metal powders, the proposed revision permits metal powders, provided the material was existing at the Hematite site on July 1, 2001. WEC also proposed altering the maximum permitted quantities of enriched U-235. These quantities were increased significantly over the present limits in the Hematite License. These increases were to account for the remediation of the material in the burial pits. Removal of burial pit material, which is identified as enriched material, counts against the possession limits. WEC chose to increase the allowable quantities to provide some flexibility in the event that a significant amount of enriched material was identified, which had not been placed on the burial pit logs. When enriched material is removed from the pits, it counts against the possession limits. While buried, it does not. If the possession limits remained at the present values, the limits could be exceeded with an unanticipated finding of enriched material. With the increased quantity limits, there is a more significant margin before the possession limits can be exceeded. Finally, the section of the Hematite License was also amended to remove from the listing of permissible materials Californium 252.

In the proposed revision to the license, WEC proposed that Hematite could possess Category I or Category II special nuclear material (SNM) provided it was handled in accordance with the approved Physical Security Plan, the Fundamental Nuclear Material Control Plan and the Nuclear Criticality Contingency Plan for Remediating Contingency Hot Spots.
With respect to the specific possession limits WEC proposed in Section 1.4 of the revised license application:

1) Items A, B, C and D – use of this Special Nuclear Material and Source Material is limited to those activities necessary to process and package the materials into forms suitable for transfer to other licensed operations or approved recipients. Receipt of any additional materials in these categories is limited to that necessary to complete the decommissioning of the site and facilities. Examples of such receipts would be calibration sources and residual contamination on shipping containers and packages.

2) Item E – for instrument calibration and testing.

3) Item F – for instrument calibration and testing.

4) Item G – for instrument calibration and testing and as residual contamination on shipping containers and packages.

5) Item H – for possession of residual contamination on building and equipment surfaces or contaminated waste/materials or contaminated soil/sediment.

6) SNM is either Diffuse Material or Potentially Recoverable SNM; these terms are defined in the Fundamental Nuclear Material Control Plan. Diffuse Material is counted in the Line Item H category. Potentially Recoverable SNM is counted against the appropriate Line Item A, B, or C limit.

Staff Evaluation

NRC staff has assessed the proposed changes to the possession limits including their manner of delineation. The staff has concluded that it is appropriate to delineate enrichments according to three categories rather than two. Having three separate categories, one for High Enriched Uranium ($\geq 20\%$ U-235), another for enrichment of U-235 greater than $10\%$ but less than $20\%$ and the third for enrichment of U-235 less than $10\%$ will permit WEC to handle potential situations which may arise during the excavation of the burial pits. It is also appropriate to alter the designation of the permitted form of materials since the operations performed in the manufacture of low enriched uranium fuel did not permit certain forms which could be exhumed when the burial pits are remediated. During this exhumation there exists the potential for metal powder material or highly enriched uranium or other undocumented material may be discovered in the burial pits.

The staff has also concluded that it is appropriate to increase the possession limit for the license so that WEC may possess Category I and Category II SNM provided the material is handled in accordance with the approved Physical Security Plan, the Fundamental Nuclear Material Control Plan and the Nuclear Criticality Contingency Plan for Remediating Contingency Hot Spots. As with respect to the categorization noted above, this increase in limits is appropriate to account for the potential exhumation of undocumented quantities and forms of materials.

An Environmental Assessment for this action is not required because this action falls within the class of actions that are categorically excluded by 10 CFR 51.22(c)(11). The proposed action is an administrative change which will permit WEC to implement its approved
Decommissioning Plan. The propose action will not result in a change in process operations or equipment and will not result in: (i) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (ii) a significant increase in individual or cumulative occupational radiation exposure; (iii) a significant construction impact; and (iv) there is no significant increase in the potential for or consequences from radiological accidents.

1.5 AUTHORIZED ACTIVITIES

In this section of the revised license, WEC requested authorization to conduct the following activities at the Hematite DP:

1) Receive, possess, use, store and transfer Special Nuclear Material under Part 70 of the Regulations of the Nuclear Regulatory Commission.

2) Receive, possess, use, store, and transfer Source Material under Part 40 of the Regulations of the Nuclear Regulatory Commission.

3) Receive, possess, use, store, and transfer Byproduct Material under Part 30 of the Regulations of the Nuclear Regulatory Commission.

The authorized principal licensed activity is to decommission the site in accordance with the DP to reduce residual radioactivity to a level that permits termination of the license. With the cessation of all nuclear fuel manufacturing operations on the site, authorized activities are limited to those associated with decommissioning in accordance with Title 10 of the Code of Federal Regulations (CFR), Section 70.38(d). The activities WEC is undertaking are to result in the termination of License No. SNM-33 and release of the site for unrestricted use in accordance with NRC Regulations (10 CFR Part 20, Subpart E, "Radiological Criteria for License Termination"). These authorized activities are conducted at any location on the Hematite site.

Staff Evaluation

The staff has evaluated the proposed revision to authorized activities in the license. The revision indicates that WEC wishes to continue to be able to receive, possess, use, store and transfer SNM, source and byproduct material in accordance with 10 CFR Parts 70, 40, and 30. In addition, WEC wishes to decommission the Hematite site. Authority for that was granted with the staff’s DP SER (ML112101630). The staff has concluded that the proposed revisions to the license are appropriate for the Hematite site which is entering into full decommissioning activities.

1.6 EXEMPTIONS AND SPECIAL AUTHORIZATIONS

In the license application, WEC proposed the following specific exemptions and special authorizations for Hematite:

1.6.1 Release of equipment and materials from restricted areas to controlled areas or offsite in accordance with the NRC’s "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated April 1993.
1.6.2 Notwithstanding the requirements of 10 CFR 70.24, the licensed activity involving any materials described below shall be exempted from the “monitoring system” requirements under any of the conditions specified below:

- Low concentration materials (1.4 g U-235/L for solids, and 11.6 g U-235/L for liquids) that are safely subcritical by virtue of their low concentration, irrespective of any other physical conditions, including mass, geometry, moderation, reflection, etc.

- Materials that are contained in authorized packages as defined in NRC/DOT regulations, including 10 CFR 71 and 49 CFR 173.

- Materials within neutronically separate areas containing less than the following isotopic mass amount per separate area:
  - 700 g U-235 in uranium enriched to more than 5 wt% U-235/U, and
  - 1,640 g U-235 in uranium enriched to no more than 5 wt% U-235/U;

Notes:

(1) Structure surfaces within the separate area that contain residual U-235 surface contamination below an areal density of 10 g U-235/ft² are not included in the mass amount for the separate area.

(2) Any U-235 in undisturbed subsurface areas is not included in the isotopic mass amount for the separate area.

(3) Neutronically separated areas are to be considered effectively neutronically isolated from all other areas used to store fissile material when either of the following conditions are satisfied:

  - A minimum edge-to-edge separation distance of 12 feet is maintained between each area used to store fissile material; or

  - The configuration of each area used to store fissile material, in conjunction with any present fixed shielding (e.g., concrete block walls) between the areas, is demonstrated by neutron transport calculations to result in effective neutron isolation between each area.

- Residual materials on surfaces of the site buildings or installed equipment in those buildings including removal and transit of those SNM-bearing materials from the buildings. (Any SNM-bearing materials brought into site buildings must satisfy another provision in this Section 1.6.2 to meet the exemption.)

- A Contingency Hot Spot that is in secure storage, is neutronically isolated from other SNM, and is intrinsically safe due to two of its physical parameters (e.g., mass, volume, enrichment, geometry, moderation) being in a known state that is sufficient to render the item safely subcritical. The term ‘Contingency Hot Spot’ is defined in WEC’s Nuclear
1.6.3 Notwithstanding the requirements of 10 CFR 70.22(a)(4), the licensed activity shall be exempted from the possession limit requirements of Section 1.4 Item C above with respect to the SNM covered by the Settlement Agreement, Consent Order and Final Judgment entered by the United States District Court for the Eastern District of Missouri – Eastern Division in Westinghouse Electric Company, LLC v. the United States of America, et al, Case 4:03-cv-00861-CDP (Westinghouse - U. S. Government Settlement Agreement-In-Principle) (ML112630111) If the WEC discovers any such SNM during decommissioning, the SNM shall be handled in accordance with the approved Physical Security Plan, Fundamental Nuclear Material Control Plan, and Nuclear Criticality Contingency Plan for Remediating Contingency Hot Spots.

1.6.4 Dismantlement and Demolition of Site Buildings

Staff Evaluation

Item 1.6.1

With respect to the above noted special authorizations and exemptions, Items 1.6.1 [indicated as 1.6(b) in present license application] is unchanged. It has been noted as License Condition 11 in the amended license.

Item 1.6.2

The staff reviewed WEC’s request for an exemption from the requirements of 10 CFR 70.24 as described in Item 1.6.2 above. WEC has requested that its current exemption from 10 CFR 70.24 be based on certain fissile material activities instead of just specific areas. Specifically, WEC requested an exemption for the following areas and activities: (1) low concentration materials, (2) materials contained in authorized shipping packages, (3) materials within neutronically isolated areas that are less than the minimum subcritical limits, (4) residual materials on buildings or equipment, and (5) a Contingency Hot Spot that is in secure storage and neutronically isolated from other special nuclear material. In Attachment 19 of its July 5, 2011, submittal (ML111880293), WEC provided the technical bases for changes to Hematite License Condition 15. Each of the five areas/activities from above is addressed below.

Areas/activities (1) and (3) above are based upon subcritical concentrations or masses of materials. WEC demonstrated that low concentration materials on site are safely subcritical because the diffuse nature of the U-235 contamination associated with the materials provides high levels of dilution. WEC defines low concentration materials as those with the following concentration limits: 1.4 g U-235/L for solids and 11.6 g U-235/L for liquids. WEC also specified the following mass limits for areas that are neutronically isolated: 700 g U-235 in uranium enriched to more than 5 wt. % U-235/U; and 1,640 g U-235 in uranium enriched to no more than 5 wt. % U-235/U. The staff determined that the limits established above represent values that are at or below the maximum subcritical limits, as established in numerous technical references, including NUREG/CR-6505, "The Potential for Criticality Following Disposal of Uranium at Low-
Area/activity (2) of the exemption request pertains to fissile material in approved shipping containers that are packaged in accordance with the requirements of 10 CFR Part 71 and 49 CFR Part 173. The staff determined that the requirements of 10 CFR 70.24(a) do not require monitoring systems when special nuclear material is being transported, provided the material is packaged in accordance with the requirements of 10 CFR Part 71. The staff further determined that the storage of the materials in shipping containers for shipment would also apply. Since material shipped in accordance with the requirements of 10 CFR Part 71 or material in shipping containers awaiting shipment are in a safe configuration, a monitoring system would not be required.

In area/activity (4), WEC requests an exemption from 10 CFR 70.24 for residual materials on building and equipment surfaces, including removal and transit of these materials. The areal density of residual fissile material is extremely low. Although areal density alone cannot be used to justify an exemption to the monitoring requirements of 10 CFR 70.24, there is no mechanism to easily mobilize enough of this material to form a critical mass. Based on the small quantity of U-235 and the dispersal of that mass over large areas, the staff has reasonable assurance that a criticality accident will not occur and therefore a monitoring system for these materials would not be required.

In area/activity (5), WEC requests an exemption from 10 CFR 70.24 for any Contingency Hot Spot that is in secure storage and neutronically isolated from other special nuclear material. This request is only for secure storage of the Contingency Hot Spot where the double contingency principle is met. All other operations involving the Contingency Hot Spot would not be exempt. Secure storage, as defined by WEC, is an area in which dual controlled entry is required. To prevent interaction concerns, the Contingency Hot Spot in secure storage must also be neutronically isolated from other fissile material. Based upon these controls, the staff has reasonable assurance that a criticality accident will not occur. Therefore a monitoring system for a Contingency Hot Spot that is in secure storage and neutronically isolated would not be required.

Based on the information in WEC’s submittal, the staff finds that, notwithstanding the requirement of 10 CFR 70.24, the licensed activity shall be exempted from the requirements for a Criticality Accident Alarm System of 10 CFR 70.24 for conditions noted above. Therefore, the NRC is granting WEC an exemption from the Criticality Accident Alarm System requirements of 10 CFR 70.24. The staff further notes that for any activities beyond those expressly exempted by this licensing action, WEC will be required to comply with the requirements of 10 CFR 70.24.

Item 1.6.2 was added to the amended Hematite License as License Condition 15. An environmental assessment for this exemption request is not required because this exemption falls within the class of actions that are categorically excluded by 10 CFR 51.22(c)(25). Granting the exemption is appropriate since: (i) there is no significant hazards consideration; (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) there is no significant increase in individual or cumulative public or occupational radiation exposure; (iv) there is no significant construction impact; (v) there is no significant increase in the potential for or consequences from
radiological accidents; and (vi) the requirements from which an exemption is sought involves the criticality accident alarm system which is an inspection or surveillance requirements.

**Item 1.6.3**

The proposed license application Item 1.6.3 was added to address a potential situation associated with the removal of material from the Hematite burial pits. Material was buried on site from 1964 - 1970. This was during the period when HEU fuel was being fabricated at Hematite. The regulations of this time period (AEC) limited the amount of SNM which could be disposed in a burial pit. Written logs of the materials that were placed in the burial pits were maintained and WEC is in possession of these logs. Based upon information in the logs, there should not be a possession limit issue associated with the retrieval of material from the pits. However, to address the situation where an item might be uncovered which was not identified in the logs and which was of such SNM magnitude that the possession limit for HEU was exceeded, this item was added to the license application. Reference is made to the Settlement Agreement, Consent Order and Final Judgment entered by the United States District Court for the Eastern District of Missouri – Eastern Division in *Westinghouse Electric Company, LLC v. the United States of America*, et al, Case 4:03-cv-00861-CDP (Westinghouse - U. S. Government Settlement Agreement-In-Principle). If such a situation of HEU were to occur, WEC is directed to their approved Physical Security Plan (PSP), Fundamental Nuclear Material Control Plan (FNMC), and Nuclear Criticality Contingency Plan (NCCP) for Remediating Contingency Hot Spots.

The staff has reviewed the addition of this item to the revised license application, which would exempt WEC from the requirement in 10 CFR 70.22(a)(4) that WEC’s license application include the name, amount and specification of the SNM the applicant proposes to use or produce and provide that should WEC discover SNM during its exhumation of the Hematite burial pit, such material would be handled in accordance with WEC’s approved PSP, FNMC, and NCCP. The staff finds the proposed revision appropriate in view of WEC’s decommissioning status, the Westinghouse - U.S. Government Settlement Agreement-In-Principle, and WEC’s unlikely, but possible, finding of a significant quantity of SNM during decommissioning.

**Item 1.6.3** is added to the amended Hematite License as License Condition 17. An Environmental Assessment for this action is not required because this exemption from 10 CFR 70.22(a)(4) falls within the class of actions that are categorically excluded by 10 CFR 51.22(c)(25). Granting the exemption is appropriate since: (i) there is no significant hazards consideration; (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) there is no significant increase in individual or cumulative public or occupational radiation exposure; (iv) there is no significant construction impact; (v) there is no significant increase in the potential for or consequences from radiological accidents; and (vi) the requirements from which an exemption is sought involves reporting or other requirements of an administrative nature.

**Item 1.6.4**

Item 1.6.4 is largely unchanged from the present license application. Item 1.6.4, [indicated as 1.6 (d) in the present license application] only permits dismantlement and demolition down to the building slab and/or foundation. This prohibition was to be in effect until a DP is approved.
WEC has submitted its DP, and the NRC has completed its review and has approved the DP (ML112101630), accordingly the restriction has become moot. Therefore, the staff has concluded that the removal of such restriction is appropriate.

Item 1.6.4 is incorporated into the amended Hematite License as a revision to License Condition 14.

1.7  FREQUENCIES

WEC proposed in Section 1.7 of the license that when audit, measurement, surveillance, and/or other frequencies are specified in license documents, the following time spans apply:

- **Daily** means once each 24-hour period, with each covering a span of 30-hours or less,
- **Weekly** means once each 7-consecutive-days, with each covering a span of 8-days or less,
- **Monthly** means 12-per-year, with each covering a span of 40-days or less,
- **Quarterly** means 4-per-year, with each covering a span of 115-days or less,
- **Semiannual** means 2-per-year, with each covering a span of 225-days or less,
- **Annual** means 1-per-year, with each covering a span of 15-months or less,
- **Biennial** means once every 2-years, with each covering a span of 30-months or less,
- **Triennial** means once every 3-years, with each covering a span of 45-months or less,

- For unspecified time periods, an extension of 0.25 times the period will apply.

**Staff Evaluation**

The staff has reviewed these proposed defined frequencies and finds them acceptable as they define the specified frequencies in a manner that is consistent with ordinary usage of the respective terms and include for unspecified time periods a 25% extension consistent with NRC policy with respect to such licenses.

1.8  DECOMMISSIONING CHANGES

WEC proposed in the license that changes to decommissioning activities shall be evaluated to ensure they are consistent with license conditions and the intent of the NRC approved DP and may be made without prior NRC approval subject to the following condition.

Revision of any of the following activities described in Chapter 14 of the DP requires NRC approval prior to implementation:

- Increasing the approved radionuclide-specific DCGLs or area factors;
- Increasing the probability of making a Type I decision error above the level stated in the DP;
- Increasing the investigation level thresholds for a given survey unit classification;
- Changing the classification of a survey unit from a more restrictive classification to a less restrictive classification (e.g., Class 1 to Class 2);
- Reducing the coverage requirements for scan measurements; and
• Using statistical tests other than the Sign test or Wilcoxon Rank Sum test for data evaluation.

Staff Assessment

The staff has evaluated the changes which WEC has proposed which require NRC approval and is in agreement with WEC’s proposal since those areas which require NRC approval are those activities associated with the Final Status Survey (FSS) for the site. The FSS determines that the site can be released for unrestricted use.

2 ORGANIZATION AND ADMINISTRATION

In the revised license, WEC indicated that organizational and administrative aspects of the Hematite operations would now be covered in Chapter 9, Project Management and Organization, and Chapter 13, Quality Assurance, of the DP.

Staff Evaluation

The staff reviewed DP Chapters 9 and 13. The results of the staff's review of these Chapters are contained in the staff's SER for the DP amendment (ML112101630).

3 RADIATION PROTECTION

In the revised license, WEC indicated that the health and safety aspects of the Hematite operations would now be covered in DP Chapter 10, Health and Safety Program during Decommissioning.

Staff Evaluation

The staff reviewed DP Chapter 10. The staff’s review of this Chapter is contained in the staff’s SER for the DP amendment (ML112101630).

4 NUCLEAR CRITICALITY SAFETY

In the revised license, WEC indicated that nuclear criticality safety aspects of the Hematite operations would now be covered in Chapter 10, Health and Safety Program during Decommissioning, and specifically 10.9.1, of the DP. The staff reviewed DP Chapters 10 and Section 10.9.1 specifically. The results of the staff's review of this Chapter are contained in the SER for the DP amendment (ML112101630).
5      EFFLUENT CONTROL AND MONITORING PROGRAM AND ENVIRONMENTAL MONITORING PROGRAM

In the revised license, WEC indicated that the environmental monitoring aspects of the Hematite operations would now be covered in Chapter 11, Environmental Monitoring Program, of the DP.

Staff Evaluation

The staff reviewed Chapter 11. The staff’s review of this Chapter is contained in the SER for the DP amendment (ML112101630).

6      RADIOACTIVE WASTE MANAGEMENT

In the revised license, WEC indicated that the radioactive waste management aspects of the Hematite operations would now be covered in Chapter 12, Radioactive Waste Management, of the DP.

Staff Evaluation

The staff reviewed DP Chapter 12. The results of the staff’s review of this Chapter are contained in the staff’s SER for the DP amendment (ML112101630).

7      DECOMMISSIONING PLAN

WEC submitted for NRC approval a DP for the Hematite facility, including a Decommissioning Funding Plan (DFP), as required by 10 CFR 70.38, License Conditions 9.E. and 15 (e.g., of SNM-00033, Amendment 53) and §70.25.

Staff Evaluation

The staff has approved the Hematite DP. The results of the staff’s review of the DP are contained in the staff’s SER (ML112101630).

8      EMERGENCY MANAGEMENT

Upon the cessation of manufacturing operations, WEC submitted an analysis of the consequences associated with postulated accidents in a WEC letter dated August 22, 2002. This analysis was approved by the NRC in Hematite License Amendment 43. WEC’s evaluation showed that the maximum dose to a member of the public due to the release of radioactive material would not exceed the provisions of 10 CFR 70.22(i)(1)(i). An Emergency Plan is therefore not required to meet the provisions of 10 CFR 70.22(i)(1)(ii).

However, in the presently approved license application, WEC committed to maintain emergency response capabilities for handling incidents involving radioactive materials that were commensurate with the hazards present. WEC anticipated that potential hazards would evolve
as decommissioning activities proceeded. WEC did not consider minor spills or releases of radioactive materials that can be controlled and cleaned up by the worker(s) to be an emergency and that such occurrences would be handled as operational issues. WEC had established procedures for various types of accidents; had identified the appropriate site, local, state and federal authorities to be notified; organizational responsibilities in the case of an accident; the emergency response measures to implement; and various other actions necessary in the event of an accident. WEC’s Emergency Procedures were consistent with Appendix R of NUREG-1556 (Volume 11).

In the revised license application on Emergency Management, WEC deleted their commitment to maintaining emergency response capabilities.

Staff Evaluation

The staff has reviewed WEC’s removal of their commitment to maintain an Emergency Management Program. The staff has concluded that the removal of such a commitment can be approved as WEC is being granted an exemption, as discussed in Section 1.6 above, from the requirement that it maintain a criticality accident alarm system under 10 CFR 70.24. An emergency plan for responding to the radiological hazards of an accidental release of special nuclear material, i.e., an Emergency Management Program, is only required under 10 CFR 70.22(i)(1)(ii) if the licensee has a criticality accident alarm system. By virtue of the exemptions being granted to WEC through this license amendment it will no longer have such a criticality accident alarm system so the requirement to have an emergency plan and WEC’s existing commitment is not applicable.