

Westinghouse Proprietary Class 2



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Our ref: HEM-10-136
Date: December 21, 2010

Subject: Responses to Requests for Additional Information on Decommissioning Funding Plan (License No. SNM-00033, Docket No. 070-00036)

Reference: 1) NRC (J. J. Hayes) letter to Westinghouse (E. K. Hackmann), dated November 5, 2010, "Westinghouse Hematite Decommission Plan Review Requests for Additional Information for the Decommissioning Funding Plan"

Reference 1 issued NRC Requests for Additional Information (RAI) concerning the Westinghouse Electric Company LLC (Westinghouse) Hematite Decommissioning Funding Plan (DFP). Responses to those RAIs are submitted herein.

Attachment 1 provides responses to the three Reference 1 RAIs, including an explanation of anticipated changes to the DFP. The changes to the DFP are provided in Attachment 2. In responding to the RAIs there was not a need to revise Appendix A to the DFP which is the cost estimate. Therefore the revised DFP provided in Attachment 2 does not contain Appendix A as it is unchanged.

Both Attachments 1 and 2 contain information considered to be proprietary to Westinghouse. Attachment 3 contains an application for withholding the proprietary information from public disclosure. Attachment 4 contains an affidavit which attests to the proprietary nature of the information in Attachments 1 and 2. Attachments 5 and 6 contain the non-proprietary versions of the information in Attachments 1 and 2, which can be released to the public.

It is respectfully requested that the subject information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.390 of the Commission's regulations.

Please contact Mark Michelsen, Acting Licensing Manager of my staff at 314-810-3376 should you have questions or need any additional information.

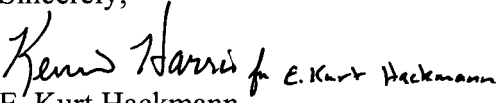
This Page is Decontrolled Upon Separation From Attachments 1 and 2

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FSME21

Sincerely,


E. Kurt Hackmann

Director, Hematite Decommissioning Project

- Attachments:
- 1) Responses to Requests for Additional Information on Decommissioning Funding Plan - Proprietary
 - 2) Decommissioning Funding Plan, without Appendix A - Proprietary
 - 3) Application for Withholding Proprietary Information From Public Disclosure
 - 4) AFFIDAVIT
 - 5) Responses to Requests for Additional Information on Decommissioning Funding Plan – Non-Proprietary
 - 6) Decommissioning Funding Plan, without Appendix A - Non-Proprietary

cc: J. J. Hayes, NRC/FSME/DWMEP/DURLD
J. W. Smetanka, Westinghouse, w/o attachments
J. E. Tapp, NRC Region III/DNMS/MCID, w/o attachments

ATTACHMENT 3

Application for Withholding Proprietary Information From Public Disclosure

**Westinghouse Electric Company LLC,
Hematite Decommissioning Project**

Docket No. 070-00036

Application for Withholding

This Application for Withholding is submitted by Westinghouse Electric Company LLC (Westinghouse), pursuant to the provisions of Paragraph (b) (1) of Section 2.390 of the Commission's regulations. Attachments 1 and 2 of the accompanying letter contain commercial strategic information proprietary to Westinghouse and customarily held in confidence.

The proprietary material for which withholding is being requested is identified in the proprietary Attachments 1 and 2 of the accompanying letter. In conformance with 10 CFR Section 2.390, an Affidavit accompanies this Application for Withholding as Attachment 4, setting forth the basis on which the identified proprietary information may be withheld from public disclosure. Attachments 5 and 6 provide the non-proprietary versions of the Attachments 1 and 2 information.

Accordingly, it is respectfully requested that the subject information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.390 of the Commission's regulations.

ATTACHMENT 4

AFFIDAVIT

**Westinghouse Electric Company LLC,
Hematite Decommissioning Project**

Docket No. 070-00036

AFFIDAVIT

- (1) I am the Director, Hematite Decommissioning Project, Westinghouse Electric Company LLC (Westinghouse), and as such, I have been specifically delegated the function of reviewing the proprietary information sought to be withheld from public disclosure in connection with Westinghouse submittals to NRC, and am authorized to apply for its withholding on behalf of Westinghouse.
- (2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.390 of the Commission's regulations and in conjunction with the Westinghouse "Application for Withholding" accompanying this Affidavit.
- (3) I have personal knowledge of the criteria and procedures utilized by Westinghouse in designating information as a trade secret, privileged or as confidential commercial or financial information.
- (4) Pursuant to the provisions of paragraph (b)(4) of Section 2.390 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
 - (i) The information sought to be withheld from public disclosure is owned and has been held in confidence by Westinghouse.
 - (ii) The information is of a type customarily held in confidence by Westinghouse and not customarily disclosed to the public. Westinghouse has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitute Westinghouse policy and provide the rational basis required.

Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

- (a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.
- (b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage, e.g., by optimization or improved marketability.
- (c) Its use by a competitor would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.
- (d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Westinghouse, its customers or suppliers.
- (e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.
- (f) It contains patentable ideas, for which patent protection may be desirable.

There are sound policy reasons behind the Westinghouse system which include the following:

- (a) The use of such information by Westinghouse gives Westinghouse a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Westinghouse competitive position.
- (b) It is information which may provide Westinghouse's competitors with information on the methods and procedures which Westinghouse uses to fulfill regulatory and licensing obligations. The extent to which such information is available to competitors may diminish the need of Westinghouse competitors to develop such methods and procedures without comparable investment of time and resources.
- (c) Use by our competitors would put Westinghouse at a competitive disadvantage by reducing our competitor's expenditures of resources by allowing them to build upon or utilize methods and procedures developed by Westinghouse at great expense.

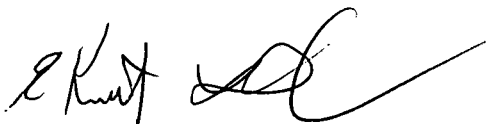
- (iii) The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR Section 2.390, it is to be received in confidence by the Commission.

- (iv) The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.

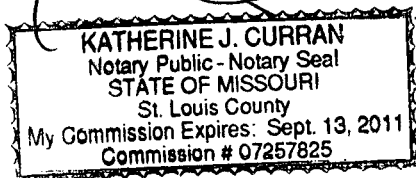
- (v) The proprietary information sought to be withheld in this submittal is that which is contained in Attachments 1 and 2, for submittal to the Commission, being transmitted by Westinghouse letter HEM-10-136 to the Document Control Desk. The proprietary information as submitted by Westinghouse is that associated with the Hematite Decommissioning Funding Plan and related responses to Nuclear Regulatory Commission requests for additional information. Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Westinghouse because it would disclose financial information or commercial strategies of Westinghouse.

In order for competitors of Westinghouse to duplicate this information, similar technical and procedural programs would have to be developed and a significant manpower effort, having the requisite talent and experience, would have to be expended.

The averments of fact set forth in this Affidavit are true and correct to the best of my knowledge, information, and belief:



E. Kurt Hackmann
Director, Hematite Decommissioning Project
WESTINGHOUSE ELECTRIC COMPANY LLC



PROPRIETARY INFORMATION NOTICE

Transmitted herewith are proprietary and/or non-proprietary versions of documents furnished to the NRC in connection with requests for generic and/or plant-specific review and approval.

In order to conform to the requirements of 10 CFR 2.390 of the Commission's regulations concerning the protection of proprietary information so submitted to the NRC, the information which is proprietary in the proprietary versions is contained within brackets, and where the proprietary information has been deleted in the non-proprietary versions, only the brackets remain (the information that was contained within the brackets in the proprietary versions having been deleted). The justification for claiming the information so designated as proprietary is indicated in both versions by means of lower case letters (a) through (f) located as a superscript immediately following the brackets enclosing each item of information being identified as proprietary or in the margin opposite such information. These lower case letters refer to the types of information Westinghouse customarily holds in confidence identified in Sections (4)(ii)(a) through (4)(ii)(f) of the affidavit accompanying this transmittal pursuant to 10 CFR 2.390(b)(1).

COPYRIGHT NOTICE

If any documents transmitted herewith each bear a Westinghouse copyright notice, the NRC is permitted to make the number of copies of the information contained in these reports which are necessary for its internal use in connection with generic and plant-specific reviews and approvals as well as the issuance, denial, amendment, transfer, renewal, modification, suspension, revocation, or violation of a license, permit, order, or regulation subject to the requirements of 10 CFR 2.390 regarding restrictions on public disclosure to the extent such information has been identified as proprietary by Westinghouse, copyright protection notwithstanding. With respect to the non-proprietary versions of such documents, the NRC is permitted to make the number of copies beyond those necessary for its internal use which are necessary in order to have one copy available for public viewing in the appropriate docket files in the public document room in Washington, DC and in local public document rooms as may be required by NRC regulations if the number of copies submitted is insufficient for this purpose. Copies made by the NRC must include the copyright notice in all instances and the proprietary notice if the original was identified as proprietary.

ATTACHMENT 5

Responses to Requests for Additional Information on Decommissioning Funding Plan

**Westinghouse Electric Company LLC,
Hematite Decommissioning Project**

Docket No. 070-00036

Responses to Requests for Additional Information on Decommissioning Funding Plan

NRC issued requests for additional information (RAI) concerning the Hematite Decommissioning Funding Plan (DFP) in letter dated November 5, 2010. Westinghouse Electric Company LLC (Westinghouse) provides responses to those RAIs herein. Some of the responses result in changes, as noted, to the DFP. Those changes are provided as Attachment 2 to the accompanying letter.

These RAI responses are organized in the same manner as the RAIs of NRC letter dated November 5, 2010. For each RAI, the NRC's Comment, Basis and Path Forward is reiterated, followed by the Westinghouse Response.

1. (HDFP-3-Q1) Comment: The calculation of labor costs in the Decommissioning Cost Estimate (DCE) submitted for Westinghouse (WEC) Hematite is based on a combination of labor costs for Westinghouse staff and labor costs for staff from a third-party remediation contractor. According to page 1-1 of the submission, "WEC staff labor rates are adjusted upwards by 20% to simulate contractor labor rates..." whenever the DCE assumes that WEC staff will be used. Contractor and subcontractor rates are based on "proposals in place," as stated on page 2-5.

However, the Worker Unit Cost Schedule presented in Table A.3.12 does not contain separate labor rates for WEC personnel and contractor personnel (a separate category of rates is presented for "Consultants" on page 6 of 8 of Table A.3.12 and for "subcontractors" in Table A.3.17a). Instead, for each category of labor, a single "Fully Burdened Labor Rate" is presented in Table A.3.12. The DCE does not describe the sources for the labor rates in Table A.3.12. The U.S. Nuclear Regulatory Commission (NRC) requests the licensee to provide additional information, including separate tables of Westinghouse labor rates and third-party contractor labor rates, if they are different, so that the basis for the labor rates provided in Table A.3.12 is fully explained, and it can be clearly determined that the Westinghouse labor costs, as escalated, are at least equivalent to the costs that would be incurred by an independent third party conducting the decommissioning activities.

Section 2.2.9 at page 2-14 states that the "Worker Unit Cost Schedule Rates for Professional and Craft Labor have been adjusted with an annual fixed escalation rate in consideration of timeframe for planning and execution, third quarter of 2009 through the first quarter of 2012." NRC requests the licensee to clarify whether WEC rates have been escalated as well as third-party contractor rates, and to provide the escalation factor(s) used.

In addition, the cost of remedial project equipment should be estimated based on the assumption that such equipment will be supplied by a third party, at third-party rates. According to Section 2.2.12 at page 2-17, the costs in Table A.3.15, "Equipment/Supply Costs (Excluding Containers)" are based on a proposal from a remedial contractor and thus satisfy this criterion for the DCE. However, two entries in Table A.3.15 indicate that

equipment, a forklift and a loader, will be supplied by the licensee at no cost. Please revise the table to add third-party costs for the indicated forklift and loader.

Basis: NRC guidance in NUREG-1757 for developing a site-specific cost estimate for decommissioning specifies that the cost estimate "should assume the work will be performed by an independent third-party contractor." The use of third-party costs will help to ensure that if the licensee is unable or unwilling to perform the decommissioning, sufficient financial assurance will be available so that an independent third-party contractor can be hired to do the work. Any alternative labor cost estimates should have a "clear and reasonable" basis that is provided in the DCE and should be at least equivalent to third-party costs.

Path Forward: Clarify that the Westinghouse costs, as escalated, are at least equivalent to the costs that would be incurred by an independent third party conducting the decommissioning activities.

Westinghouse Response:

Labor costs included in the Decommissioning Cost Estimate (DCE) are comprised of four major components.

- 1- Project Staff (WEC Staff) – Westinghouse employees that are included in the long-term project organization
- 2- Project Staff (Contract Staff) – Contract staff integrated into the long-term project organization (e.g. System One, SAIC, Babcock, Energy Solutions, etc.)
- 3- Consultants – Subject matter experts that perform discreet scope consultation
- 4- Remediation Contractors – Contractors that implement field remediation via discreet scope contracts

Table A.3.12 includes all of the above labor categories. Pages 1-3 of Table A.3.12 include billable third party rates for two categories of Remediation Contractors (Building Demolition, and All Except Building Demolition). Pages 4-8 include Project Staff and Consultants. Consultants are listed at third party billable rates. Project Staff are blended rates which incorporate third party billable rates for Contract Staff, and salaries/benefits for WEC Staff. WEC Staff also include a 20% "Contract Adder" to account for any profit & overhead that may be required if those duties were to be performed by a third party contractor. WEC rates that include the adders actually exceed Contract Staff rates on average. For example, the Director/Managers labor category is composed of 9 individuals (5 Contract Staff, 4 WEC). The average WEC rates with adders exceed the average Contract Staff rates by 22%.

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Westinghouse considers the blended Project Staff rates presented in the estimate appropriate and equivalent to third party rates.

The DCE represents "current year" dollars. With the exception of certain proposed Remediation Contractor rates, there are no escalation factors in the estimate. Per NRC conference call of August 2009, the cost estimate was not to account for any "time value of money" effects. If escalation factors were to be applied, a corresponding time value discount rate would also be required. This would have the effect of reducing the overall net present value of the cost estimate. The current year dollar approach results in a higher and more conservative project estimate. While the Remediation Contractor proposal did account for some escalation, no attempt was made to de-escalate the quote. This also results in a slightly higher, but more conservative cost estimate.

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](d)(e) Given the low significance, Westinghouse requests that no adjustment be required to the existing estimate.

2. (HDFP-3-Q2) Comment: The description of the Planning and Preparation component of the work in Section 2.2.3 on page 2-9 provides a table of staffing levels for the first twelve months and the last three months of the decommissioning, including the Final Site Survey (FSS). The table has separate entries for "FSS" (with a head count of 0.65 for each period) and "contractors" (with a head count of 2 for each period). A paragraph following the table states that, "Other than the two remediation contractor project staff indicated above, contractors are not included in the planning and preparation phase." However, this statement appears to be in conflict with Table A.3.6 "Planning and Preparation (Work Days)," and Table A.3.12, "Worker Unit Cost Schedule," both of which show FSS staff under the heading "Consultants."

Path Forward: Clarify the relationship between the table in Section 2.2.3 on page 2-9 and Tables A.3.6 and A.3.12 in Appendix A. Explain whether the 182 Planning and Preparation work days for FSS staff are properly attributed to contractors/consultants or to Westinghouse personnel.

Westinghouse Response:

The table on page 2-9 of 2.2.3 refers to 0.65 FSS personnel which are consultants. The table also refers to 2 "Contractors". In this case the contractors are Remediation Contractors. The paragraph following the table was meant to communicate that other than the 2 listed in the table, there are no other Remediation Contractors in the planning and preparation phase. The FSS personnel on page 2-9 correspond to the FSS Eng-2 (offsite) and FSS GM in A.3.6 under Consultants. The 2 contractors listed on page 2-9 correspond with the Project Engineer and EH&S Engineer in A.3.6 under Consultants.

3. Comment: A key factor determining the amount of the DCE is the assumptions in Section 2.2.2 concerning the number and dimensions of the facility components and soil areas that will require decommissioning. Although a detailed description of the site characterization is not provided in the DCE itself, the submission properly provides a reference to the source of these assumptions, which are based on the Hematite Radiological Characterization Report (page 2-3 and Reference 9 in Section 4.0).

However, the sources for the estimates in the DCE of the costs of the decommissioning activities to be conducted and the costs of packing, shipping, and disposal of wastes are not always included. The DCE does identify a contract with Studsvik Race for bulk survey free release (BSFR) waste disposal and a contract with an unidentified firm for BSFR container rental (page 2-16). The DCE refers to a proposal from EnergySolutions for radiological and mixed waste packaging, shipping, and disposal of radiological and mixed waste (page 2-16) but gives no details, such as the date of the proposal or whether it represents a firm fixed price. No sources are provided for several important supporting tables in Appendix A, including Table A.3.14, A.3.15, A.3.16, portions of A.3.17, and A.3.17a. To make the DCE a complete and self-contained document, the sources for the listed tables should be supplied in the DCE, and a description of all contracts and/or proposals that are used as the basis for cost estimates, including effective dates and contract duration, should be specifically identified in the list of references provided as Section 4.0 of the submission.

1. The sources for cost estimates of activities that will be undertaken in the next phase of the decommissioning also are not supplied in the DCE. The submission states that the cost estimate for remediation of standing buildings, including the building slabs and soil beneath the slabs, is based on a fixed price proposal from a third-party contractor (page 2-6). Because of the fixed price nature of the contract, NRC requests the licensee to confirm that all risk that the estimates of the volume of building, slab, and soil material to be scabbled or removed will exceed the estimates in the DCE will fall upon the contractor and not upon the licensee. The DCE also states that restoration of contaminated areas on the facility grounds is based on a detailed proposal from the remediation contractor (page 2-11).

Path Forward: Provide additional information concerning the contracts and/or proposals serving as the basis for the DCE. Provide the identity of the building remediation contractor and the site remediation contractor or contractors and in Section 4.0 of the DCE, the proposals or contracts relied upon in the DCE for the estimated costs of the building and site remediation.

Westinghouse Response:

Listed below are proposals/contracts used as the basis for the DCE. Details of the pricing and assumptions associated with these proposals/contracts can be found in 2.2.11 – 2.2.13. As with all typical contracts, risk assignment is negotiated by the parties. The DFP contains a contingency which serves the purpose of mitigating these types of risks.

The Decommissioning Funding Plan Section 2.2.1 and Section 4.0 have been revised to reference the proposals/contracts listed below.

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ATTACHMENT 6

**Decommissioning Funding Plan
Without Appendix A
Dated December 21, 2010**

**Westinghouse Electric Company LLC,
Hematite Decommissioning Project**

Docket No. 070-00036



Hematite Decommissioning Project

HEMATITE DECOMMISSIONING FUNDING PLAN

DO-09-001

December 21, 2010

Docket No. 70-36
License No. SNM-33

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LIST OF TABLES

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ACRONYMS AND ABBREVIATIONS

ACM	Asbestos Containing Material
AOC	Areas of Concern
BSFR	Bulk Survey Free Release
Central Tract	Hematite Decommissioning Project site area bounded by State Road P to the north, the northeast site creek to the east, the Union Pacific railroad tracks to the south, and the site creek/pond to the west
cu. ft.	Cubic Foot
DCGL	Derived Concentration Guideline Level
DFP	Decommissioning Funding Plan
DP	Decommissioning Plan
FNMCP	Fundamental Nuclear Material Control Plan
FOG	Fuel, Oil, and Grease
FSS	Final Status Survey
ft.	Foot
HDP	Hematite Decommissioning Project
HEU	High Enriched Uranium
HSA	Historical Site Assessment
HVAC	Heating Ventilation and Air Conditioning
IH	Industrial Hygiene
Impacted Area	Area with a reasonable potential for residual radioactivity in excess of natural background or fallout levels
NRC	U.S. Nuclear Regulatory Commission
RAI	Request for Additional Information
SNM	Special Nuclear Material
sq. ft.	Square Foot
Tc-99	Technetium-99
T&D	Transport and Disposal
VOC	Volatile Organic Compound
WBS	Work Breakdown Structure
WEC	Westinghouse Electric Company LLC



1.0 INTRODUCTION

Westinghouse Electric Company LLC (WEC) hereby provides an updated Decommissioning Funding Plan (DFP) for the Hematite Decommissioning Project (HDP), to terminate License SNM -33 in accordance with 10 CFR 70.25(e) (Reference 2). This cost estimate was developed in accordance with the latest governing requirements and by personnel with extensive knowledge of decommissioning techniques and strong expertise in assessing, planning, performing and verifying compliance with the radiological criteria for license termination (10 CFR 20 Subpart E (Reference 6)). The HDP DFP was prepared based upon the guidance set forth in NUREG-1757, Consolidated Decommissioning Guidance, Volume 3, Financial Assurance, Recordkeeping, and Timeliness.

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The Hematite Site has been in the decommissioning process since notifying the NRC in April 2001 of its intention to cease principle activities. The details regarding the site contamination levels, release criteria, remediation methods, surveys and schedule are provided in the Hematite Decommissioning Plan and supporting documents which will be submitted for NRC review separately from this cost estimate and funding plan.

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2.0 SITE SPECIFIC COST ESTIMATE

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2.1 FACILITY DESCRIPTION

The Hematite Decommissioning Project is a former fuel cycle facility that was dedicated to the manufacture of nuclear fuels. Prior to shutdown of the facility, processing and fabrication activities involving Special Nuclear Materials (SNM) were conducted within the controlled access area on the 228 acre site.

2.1.1 SITE LOCATION

The Hematite Decommissioning Project is located in Jefferson County, Missouri, approximately ¾ mile northeast of the unincorporated town of Hematite, Missouri, four miles southwest of the town of Festus, Missouri, and 35 miles south of the city of St. Louis, Missouri. The site address is:

Westinghouse Electric Company LLC
Hematite Decommissioning Project
3300 State Road P
Festus, Missouri 63028

2.1.2 LICENSE NUMBER AND PERIOD OF LICENSE

The Hematite Decommissioning Project U.S. NRC Material License is Special Nuclear Material License (SNM) No. SNM-33 (Reference 1) (NRC Docket 70-36). The expiration date for License No. SNM-33 was revised in Amendment No. 50, issued March 23, 2006, to specify that

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the license is continued until decommissioning is complete and the NRC notifies WEC in writing that the license is terminated.

2.1.3 POSSESSION LIMITS

Special Nuclear Material License SNM-33 (Reference 1) authorizes WEC to possess quantities of Special, Source and Byproduct material that exceed those which allow the use of the prescribed amounts in 10 CFR Part 70.23(d) (Reference 2) and thus the financial assurance for decommissioning of the Hematite Site must be based upon a decommissioning funding plan. Refer to SNM-33 (Reference 1) for specific current limits.

2.1.4 AUTHORIZED ACTIVITIES

With the cessation of all nuclear fuel manufacturing operations on the site, authorized activities are limited to those associated with decommissioning in accordance with 10 CFR 70.38(d) (Reference 5). WEC is authorized to conduct the following activities at the Hematite Decommissioning Project:

1. Receive, possess, use, store and transfer Special Nuclear Material under Part 70 (Reference 2) of the Regulations of the Nuclear Regulatory Commission.
2. Receive, possess, use, store, and transfer Source Material under Part 40 (Reference 3) of the Regulations of the Nuclear Regulatory Commission.
3. Receive, possess, use, store, and transfer Byproduct Material under Part 30 (Reference 4) of the Regulations of the Nuclear Regulatory Commission.

With the License application affiliated with the Decommissioning Plan, the principal licensed activity will be to decommission the site in order to remove the facilities and site safely from service and to reduce residual radioactivity to allow termination of License No. SNM-33 (Reference 1) and release of the site for unrestricted use in accordance with NRC Regulations (10 CFR 20, Subpart E, "Radiological Criteria for License Termination" (Reference 6). These authorized activities are to be conducted on the Hematite site in accordance with the license and the approved Decommissioning Plan.

2.1.5 STATUS OF FACILITY BUILDINGS AND STRUCTURES

Table 2-1 of the Hematite Decommissioning Plan (DP) (Reference 7) provides descriptions of the current status of facility buildings and structures.

DP Chapter 2, “Facility Operating History” (Reference 7), describes in detail the removal of systems, components and wastes from inside facility buildings that was performed in two phases since the plant ceased operations in 2001. The first phase was conducted from 2001 to 2003 and involved uranium removal for reuse or disposal and general removal of stored waste materials. The second phase was conducted between 2003 and 2006 and included removal of building systems, equipment, and process materials in preparation for future building demolition. Demolition of buildings and structures has not been initiated; however, building demolition has been approved by the NRC as outlined in SNM-33 License Amendment No. 52 (Reference 1), subject to the limitations contained in NRC Confirmatory Action Letter to HDP dated December 15, 2008 (Reference 11) and subsequent addendums.

A detailed description of the facility buildings, rooms, and grounds is provided in the HDP Historical Site Assessment (Reference 8), provided as supporting documentation and submitted with the HDP Decommissioning Plan.

2.1.6 ON-SITE BURIAL

On-site burial was used as a disposal method for contaminated waste materials at Hematite from 1965 until 1970. This burial pit area is documented to contain 40 unlined pits east of the facility buildings. Additionally, available information indicates that on-site burials may have occurred as early as 1958 or 1959. Refer to the Historical Site Assessment (Reference 8) for additional information on the burial pits.

2.1.7 AREAS OF CONTAMINATION

Radiological characterizations of the environment and buildings at the Hematite site have been conducted several times, from the 1980’s through the present. The Hematite Radiological Characterization Report (Reference 9) summarizes the characterization efforts and data from the most recent measurement, sampling and analysis survey campaigns.

Sample data from multiple characterization studies were combined and grouped into data sets for soil and water, to define specific geological areas which can be used for decommissioning planning and final status survey. The impacted area for final status survey covers the area North of the railroad, West of the Northeast Site Creek, South of State Highway P, and up to and including the Site pond and Site Creek (on the west of the property) south along the Site Creek, down to where the Site Creek joins Joachim Creek. (Reference 9).

2.1.8 RADIOACTIVE WASTE MANAGEMENT

Radioactive waste management will be performed in accordance with DP Chapter 12 (Reference 7). Elements of Chapter 12 include waste characterization, segregation, packaging and transportation. The general process of material identification and classification by determination of the degree of radiological and volatile organic compound (VOC) impact, selection of on-site treatment options, and determination of final disposition is generally described in DP Chapter 12.



2.2 ESTIMATED DECOMMISSIONING COSTS

The Hematite Decommissioning Funding Plan is based on a comprehensive cost estimate completed in June 2009. The estimate includes forecast project costs starting at the submission of the Decommissioning Funding Plan to the NRC through completion of the site remediation and NRC License termination. The cost estimate includes the 25% contingency required by the NRC.

2.2.1 COST ESTIMATE OVERVIEW

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During the NRC DP review and approval period, the Hematite project team will continue to perform preparatory work activities to support the remediation effort. [

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2.2.2 NUMBER AND DIMENSIONS OF FACILITY COMPONENTS

Table A.3.5 Numbers and Dimensions of Facility Components

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The following assumptions were made in calculating the site plot volumes shown in Table A.3.5.

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December 21, 2010

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2.2.3 PLANNING AND PREPARATION (WORK DAYS)

Table A.3.6 Planning and Preparation (Work Days)

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December 21, 2010



2.2.4 DECONTAMINATION OR DISMANTLING OF RADIOACTIVE FACILITY COMPONENTS (WORK DAYS)

Table A.3.7 Decontamination or Dismantling of Radioactive Facility Components (Work Days)

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2.2.5 RESTORATION OF CONTAMINATED AREAS ON FACILITY GROUNDS (WORK DAYS)

Table A.3.8 Restoration of Contaminated Areas on Facility Grounds (Work Days)

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2.2.6 FINAL RADIATION SURVEY (WORK DAYS)

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2.2.7 SITE STABILIZATION AND LONG-TERM SURVEILLANCE (WORK DAYS)

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2.2.8 TOTAL WORK DAYS BY LABOR CATEGORY

Table A.3.11 Total Work Days by Labor Category

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2.2.9 WORKER UNIT COST SCHEDULE

Table A.3.12 Worker Unit Cost Schedule

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2.2.10 TOTAL LABOR COSTS BY MAJOR DECOMMISSIONING TASK

Table A.3.13 Total Labor Costs by Major Decommissioning Task

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2.2.11 PACKAGING, SHIPPING, AND DISPOSAL OF RADIOACTIVE WASTES
(EXCLUDING LABOR COSTS)

Table A.3.14 Packaging, Shipping and Disposal of Radioactive Wastes (Excluding Labor Costs)

Waste Volumes

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Waste Packaging, Shipping, & Disposal

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2.2.12 EQUIPMENT/SUPPLY COSTS (EXCLUDING CONTAINERS)

Table A.3.15 Equipment/Supply Costs (Excluding Containers)

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2.2.13 LABORATORY COST

Table A.3.16 Laboratory Costs

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2.2.14 MISCELLANEOUS COSTS

Table A.3.17 Miscellaneous Costs

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2.2.15 TOTAL DECOMMISSIONING COSTS

Table A.3.18 Total Decommissioning Costs

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2.3 KEY ASSUMPTIONS

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3.0 FUNDING PLAN

3.1 FINANCIAL ASSURANCE

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3.2 DETERMINING THE MEANS FOR ADJUSTING THE COST ESTIMATE

WEC periodically updates the Hematite decommissioning cost estimate based on actual decommissioning progress and with an estimate of remaining costs based on the best available information about the remaining scope of the decommissioning effort and the current cost of labor and materials. The cost estimate updates reflect the most current knowledge with respect to staffing requirements and work/activity schedules, remaining scheduled decommissioning remediation efforts, and adjustments for current radioactive waste disposal volumes and rates. Pursuant to the requirements of 10 CFR 70.25(e) (Reference 2), updates to the cost estimate and associated funding levels are performed at intervals not exceeding three years.

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4.0 REFERENCES

1. Special Nuclear Material License No. SNM -33, as amended.
2. Code of Federal Regulations, Title 10, Part 70, “Domestic Licensing of Special Nuclear Material.”
3. Code of Federal Regulations, Title 10, Part 40, “Domestic Licensing of Source Material.”
4. Code of Federal Regulations, Title 10, Part 30 “Rules of General Applicability to Domestic Licensing of Byproduct Material.”
5. Code of Federal Regulations, Title 10, Part 70.38, “Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas.”
6. Code of Federal Regulations, Title 10, Part 20, Subpart E, “Radiological Criteria for License Termination.”
7. Hematite Decommissioning Project Document No. DO-08-004, *Hematite Decommissioning Plan*.
8. Hematite Decommissioning Project Document No. DO-08-005, *Historical Site Assessment*.
9. Hematite Decommissioning Project Document No. DO-08-003, *Hematite Radiological Characterization Report*.
10. Hematite Decommissioning Project Document No. PO-WM-001, *Hematite Waste Management and Transportation Plan*, PO-WM-001.
11. NRC Letter to WEC Hematite dated December 15, 2008, Confirmatory Action Letter
12. [

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