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December 20, 2002

BY FEDERAL EXPRESS

Dr. William D. Travers
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Mail Stop O-16E15
11555 Rockville Pike
Rockville, Maryland 20852-2738

**Re: Viacom Inc. Petition Pursuant to 10 C.F.R. 2.206
Viacom Inc. Request for NRC Orders
NRC Docket Nos. 50-22, 70-698, NRC License Nos. TR-2, SNM-770**

Dear Dr. Travers:

On behalf of Westinghouse Electric Company LLC ("Westinghouse"), I am submitting a consolidated response in opposition to the October 29, 2002, request by Viacom Inc. ("Viacom") for Nuclear Regulatory Commission ("NRC") Orders (1) terminating the 10 C.F.R. Part 50 Portion of NRC License No. TR-2, and (2) declaring that decommissioning under the TR-2 licenses has been satisfactorily completed, and the October 30, 2002, Viacom petition pursuant to 10 C.F.R. § 2.206, in reference to NRC License No. SNM-770.

As detailed in the response, the Viacom requests for relief should be denied as unwarranted, unnecessary and inappropriate. To the extent that Westinghouse requests affirmative relief in its response if the Staff grants the Viacom requests, then such affirmative relief requests should be considered a Section 2.206 petition and their review consolidated with that of the Viacom requests.

With respect to the public meeting of the Petition Review Board specified by your guidance, Westinghouse requests that it be permitted to participate in that meeting as an equal participant with Viacom. In the meantime, we invite the Staff, together with representatives of Westinghouse and Viacom, to tour the Waltz Mill site to enable the Staff to better understand past and present operations at the site and assist in its consideration of the Viacom requests and Westinghouse response.

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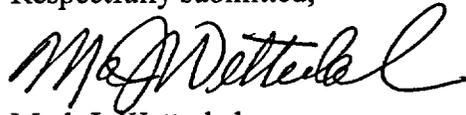
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Correspondence related to the petitions should be directed to the undersigned with a copy to F. Ramsey Coates, Esq., Vice President and General Counsel, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, PA 15230-0355.

Respectfully submitted,



Mark J. Wetterhahn
Counsel for
Westinghouse Electric Company LLC

Enclosure

December 20, 2002

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE EXECUTIVE DIRECTOR FOR OPERATIONS

In the Matter of:)
)
Westinghouse Electric Company LLC)
)
(Waltz Mill, Pennsylvania,)
License No. SNM-770))
)
and)
)
Viacom Inc.)
)
(Westinghouse Test Reactor,)
License No. TR-2))

Docket Nos. 70-698
50-22

RESPONSE OF WESTINGHOUSE ELECTRIC COMPANY LLC TO REQUEST OF
VIACOM INC. FOR ORDERS AND PETITION PURSUANT TO 10 C.F.R. § 2.206

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December 20, 2002

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE EXECUTIVE DIRECTOR FOR OPERATIONS

In the Matter of:)
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Westinghouse Electric Company LLC)
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(Waltz Mill, Pennsylvania,)
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(Westinghouse Test Reactor,)
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Docket Nos. 70-698
50-22

RESPONSE OF WESTINGHOUSE ELECTRIC COMPANY LLC TO REQUEST OF VIACOM INC. FOR ORDERS AND PETITION PURSUANT TO 10 C.F.R. § 2.206

I. Introduction

Westinghouse Electric Company LLC (“Westinghouse”) hereby responds to two filings by Viacom Inc. (“Viacom”), related to the decommissioning and decontamination of a shutdown reactor, and the remediation of other facilities, soils and groundwater contaminated as the result of discontinued operations at the Waltz Mill, Pennsylvania site, by Viacom’s predecessor in interest. For the reasons stated herein, the requests for relief should be denied as unwarranted, unnecessary and inappropriate.

On October 29, 2002, Viacom, holder of U.S. Nuclear Regulatory Commission (“NRC”) License TR-2 for the Westinghouse Test Reactor (“WTR”) at Waltz Mill, filed a request for two related orders: (1) an order terminating the TR-2 license; and (2) an order declaring that Viacom’s obligations to decommission the WTR in accordance with the

NRC-approved decommissioning plan for the site have been satisfactorily completed, except for actions which “require the cooperation of” Westinghouse.¹

Subsequently, on October 30, 2002, Viacom filed a petition pursuant to 10 C.F.R. § 2.206 requesting that the NRC issue an order, under 10 C.F.R. § 2.202, that would require Westinghouse, holder of NRC License SNM-770, to (1) provide certain radiological survey data to the NRC; and (2) accept under license SNM-770 certain nuclear materials now held under license TR-2 and located at the former WTR facility.²

Both the Petition and the Request should be denied in their entirety. Westinghouse, as an NRC licensee, recognizes that it is ultimately responsible for decommissioning of the SNM-770 site, and intends to fully comply with NRC requirements to remediate the site at the end of its licensed life. However, Westinghouse accepted that responsibility in 1999 on the condition that CBS (now Viacom) would remediate certain legacy contamination, *i.e.*, contamination stemming from activities CBS discontinued many years ago, with no relation or utility to ongoing operations for Westinghouse’s nuclear services business. Viacom has failed to fulfill its commitments to Westinghouse and to the NRC under site decommissioning and remediation plans. This matter is the subject of arbitration proceedings between Westinghouse and Viacom and, in essence, is an economic dispute between private parties. In similar instances the NRC has refrained from becoming embroiled in commercial disputes. It should do the same here by denying Viacom’s petitions. If the NRC elects to

¹ See Letter from R.K. Smith, Viacom, to NRC Document Control Desk of 10/29/02, “Viacom Inc., Westinghouse Test Reactor TR-2, Docket No. 50-22, Application for NRC Orders (1) Terminating 10 CFR Part 50 Portion of TR-2 License and (2) Declaring that Decommissioning of TR-2 Structures Has Been Satisfactorily Completed (“Request”).

² See *Westinghouse Elec. Co. LLC* (Waltz Mill, Pa Site), “Petition Pursuant to 10 CFR § 2.206,” dated October 30, 2002 (“Petition”).

consider Viacom's requests further, it should do so only in the context of a consideration of all the issues related to decommissioning of the TR-2 reactor and the ongoing need for cleanup of legacy contamination, including contaminated soils, retired facilities, and groundwater, at the Waltz Mill site under the SNM-770 license.

II. Executive Summary

Both the Request and the Petition relate to contractual disputes over the responsibilities of Viacom in performing decommissioning and remediation activities at the Waltz Mill site required under NRC licenses TR-2 and SNM-770, and the economic ramifications thereof. Viacom's petitions are an effort to draw the NRC into and influence the outcome of the disputes which the parties have agreed to resolve by arbitration. In its filings, Viacom requests that the NRC issue orders to accomplish the following tasks: (1) terminate the TR-2 license; (2) declare that Viacom has completed its obligations to decommission the WTR under the approved decommissioning plan for the facility; (3) require Westinghouse to provide certain radiological survey data to the NRC; and (4) require Westinghouse to accept under the SNM-770 license certain radioactive materials now held by Viacom under the TR-2 license. Although Viacom's stated motives for these requests are to enable it to complete its NRC-mandated decommissioning responsibilities and to document its progress in decommissioning, its unstated but obvious true motive is to gain an advantage in contractual disputes between Viacom and Westinghouse which are in the process of being resolved in two arbitration proceedings initiated by Westinghouse.

Until the late 1990s, the TR-2 and SNM-770 licenses were held by a single licensee, Westinghouse Electric Corporation (not to be confused with Westinghouse Electric Company LLC, respondent herein). That entity was a large conglomerate with a number of

divisions, including those related to power generation, commercial nuclear power, and radio and television broadcasting. Westinghouse Electric Corporation acquired, and in late 1997, changed its name to CBS Corporation ("CBS"), signaling its intent to leave its industrial past behind to concentrate on broadcasting and entertainment. Accordingly, in 1998, CBS negotiated with British Nuclear Fuels plc ("BNFL") to sell, among other things, its existing commercial nuclear business, while retaining responsibility for certain decommissioning and remediation activities at Waltz Mill. Under the purchase agreement effecting the sale (the "Asset Purchase Agreement" ("APA")), the responsibilities of newly-formed Westinghouse Electric Company LLC (the BNFL subsidiary to which the nuclear services business was transferred) and Viacom (the successor by merger to CBS) with respect to decommissioning and remediation of the Waltz Mill site were delineated, and are based upon Viacom's obligation to fulfill responsibilities set forth in a remediation plan under license SNM-770 (the "SNM-770 Plan"), and a decommissioning plan under license TR-2 (the "TR-2 Plan") (collectively, the "Plans"). Both Plans were submitted to the NRC by CBS before CBS began negotiating with BNFL. Actions the NRC may take with respect to the Petition or the Request could affect the outcome of the pending arbitration proceedings. It is clearly this that motivated Viacom's filings.

In the APA, CBS agreed to complete the work called for under the Plans as they were ultimately approved by the NRC. Following the sale, remediation activities which had been begun prior to the sale, continued. However, Viacom apparently realized soon after it acquired CBS that the cost of the remediation had been significantly underestimated, with the costs ballooning to a level that caused it to re-examine its commitments. As a result, Viacom began to significantly narrow its reading of the scope of its responsibilities under the Plans, doing an injustice to any reasonable reading of the APA and Viacom's commitments to the NRC.

Westinghouse challenged Viacom's interpretation as to whether Viacom has fulfilled its responsibilities under the Plans. The APA provided for arbitration as the agreed method of resolution for disputes arising under the contract. Accordingly, to resolve the dispute, Westinghouse has initiated two arbitration proceedings under the APA and a separate project management contract. In contrast, Viacom has filed the Request and related Petition.

The NRC should decline to consider this case and deny the petition. The matter at issue is essentially a commercial dispute with a remedy in another forum. Viacom is asking the NRC to inject itself in that dispute resolution process, but there is no legitimate regulatory purpose under the Atomic Energy Act or its implementing regulations that would be served by the NRC's intervention. Not only would such intervention constitute an unnecessary diversion of scarce NRC resources, but the public health and safety is not even implicated, let alone at issue. Indeed, Viacom states in its petition that there is no immediate threat to the public health and safety at the "carefully controlled" site.

Moreover, Viacom has not presented a true or complete picture of required decontamination activities at the site, nor of its responsibilities. Westinghouse is committed to fulfilling its responsibility for ultimately decommissioning the Waltz Mill site under the SNM-770 license and terminating the license. However, that assumption of responsibility was premised upon the commitment made by CBS (now Viacom) to remediate legacy contamination associated with retired facilities (also explicitly accepted by the NRC), including those held by Viacom under the TR-2 license, which have no utility in the ongoing licensed services business, and other legacy contamination as described in the SNM-770 Plan. Viacom has failed to live up to the obligations it undertook at the time of the sale to Westinghouse, and has not met the conditions necessary for either the termination of the TR-2 license or the transfer of licensed

materials to the SNM-770 license. Viacom has failed to complete its remediation obligations to Westinghouse (and the NRC) to the NRC-approved criteria under the SNM-770 license. These are matters properly addressed in the context of arbitration.

Viacom has failed to demonstrate that it is entitled to the relief it requests under NRC regulations and precedent. Moreover, its arguments with regard to deliberate misconduct by Westinghouse are specious and unwarranted. Should the NRC feel compelled to exercise its discretion and issue one or more orders in this matter, Westinghouse believes that it should expand the scope of such orders to allow the entire situation at Waltz Mill to be given balanced and complete consideration, as set forth in this response. Such order(s) should direct Viacom to show cause why it should not begin immediately to do the following:

- fulfill the conditions precedent to the license transfer by completing decommissioning requirements under the TR-2 Plan;
- fulfill its obligations under the SNM-770 Plan to continue to decontaminate the TR-2 facilities to standards (unrestricted release criteria) approved by the NRC, where Westinghouse has determined such facilities are not appropriate for use in the ongoing nuclear services business;
- decontaminate the remaining SNM-770 retired facilities to standards approved by the NRC; and
- complete remediation of contaminated soil and groundwater, and other legacy contamination, in accordance with criteria approved, or to be approved, by the NRC.

III. Background

A. The Licensed Entities

The TR-2 and SNM-770 licenses have been modified to reflect changes in control brought about by a number of corporate mergers and reorganizations and sale of assets in recent years. Until the commercial nuclear business, including the Waltz Mill nuclear services business, was sold to Westinghouse in 1999, both licenses were held by the same licensee, Westinghouse Electric Corporation. On December 1, 1997, Westinghouse Electric Corporation

formally changed its name to CBS Corporation (“CBS”) after its acquisition of CBS.³ CBS subsequently embarked on a campaign to sell certain of its divisions. As part of that effort, CBS sold the assets of its energy systems (commercial nuclear) business to BNFL. BNFL formed a subsidiary, Westinghouse Electric Company LLC, to which the operations at Waltz Mill were transferred at closing. Accordingly, CBS submitted applications to the NRC for the transfer and/or amendment of each of its authorizing documents (*i.e.*, reactor license, materials licenses, quality assurance (“QA”) approvals, and certificates of compliance) to change the name of the licensee from (1) for the SNM-770 license, from “Westinghouse Electric Company, a division of CBS Corporation” to “Westinghouse Electric Company LLC”; and (2) for the TR-2 license, from “CBS Corporation, acting through its Westinghouse Electric Company division,” to “CBS Corporation.” CBS’s sale of the nuclear business to BNFL was predicated on CBS’s retention of responsibility for the decontamination and decommissioning under the TR-2 license and remediation under the SNM-770 license. CBS agreed to retain responsibility for cleanup and decommissioning of the test reactor and other designated facilities at Waltz Mill that had not been used for a number of years, pursuant to the Plans approved (or to be approved) by the NRC. The Plans that were awaiting approval by the NRC at the time of the sale provided that once certain milestones were reached under the TR-2 Plan, the reactor license was to be terminated and Viacom was to continue the required remediation efforts under the SNM-770 Plan.

The Westinghouse Test Reactor was not transferred as part of the sale, but was retained by CBS. CBS likewise retained the responsibility to decommission the facility and

³ See Letter from T.S. Michaels, NRC, to A.J. Nardi, CBS, of 7/31/98, “Issuance of Amendment No. 7 to Facility License No. TR-2.” After the name change, the CBS nuclear services business was operated by CBS, under the CBS division titled “Westinghouse Electric Company, a division of CBS Corporation” (not to be confused with the respondent, Westinghouse Electric Company LLC).

terminate the license in accordance with the TR-2 Plan.⁴ In addition, pursuant to its contractual agreement with BNFL under which CBS retained financial responsibility for decommissioning and/or remediating certain facilities associated with the TR-2 and SNM-770 licenses, CBS made representations to the NRC as to its ability and willingness to undertake such actions.⁵ In accordance with NRC regulations, CBS provided financial assurance to complete its required decommissioning and remediation. The seller retained the responsibility for remediating the legacy site contamination associated with operation of the test reactor. Following the transfer, Westinghouse has continued licensed activities under SNM-770 in support of its service business and the oversight of the other licensed activities occurring at Waltz Mill.

Viacom became the NRC licensee for the TR-2 license by virtue of an NRC order dated April 13, 2000. Then-licensee CBS entered into an Agreement and Plan of Merger with Viacom under which CBS merged with and into Viacom. The TR-2 license held by CBS was transferred to and is retained by Viacom, and Viacom has responsibility to decommission the

⁴ See Letter from L.J. Briskman, CBS Corporation, to S.J. Collins, NRC, of 9/28/98, "Request for a Name Change Amendment to License Number TR-2, Docket Number 50-022," (appended hereto as Exhibit 1). The NRC consented to the name change by letter issuing Amendment 9 to the license, dated March 25, 1999.

⁵ See generally "Safety Evaluation Report; Application to Transfer and Amend Westinghouse Materials Licenses, Quality Assurance Program Approvals and Certificates of Compliance," dated March 10, 1999. Under the APA, CBS agreed, at its sole cost and expense, to implement all remedial measures, including removal and decontamination activities, as may be required by and in accordance with the "Waltz Mill Facility SNM Remediation Plan" (discussed further below). See letter referenced in note 21, *infra*.

facility and terminate the license.⁶ We refer to Viacom and its predecessor in interest, CBS, collectively as "Viacom."

B. Status of the Licenses at Issue

NRC licenses SNM-770 and TR-2 govern the use of radioactive materials at the Waltz Mill site. The WTR is currently licensed under NRC License TR-2. The WTR facility is located in the northwest portion of the Waltz Mill site. The licensee, Viacom, is authorized to possess, but not to operate, the facility as a utilization facility under 10 C.F.R. Part 50. The license also permits Viacom to possess such byproduct material as may be contained in the structural parts of the facility pursuant to 10 C.F.R. Part 30. As stated above, the TR-2 license was originally issued to Westinghouse Electric Corporation by the Atomic Energy Commission ("AEC"), the predecessor of the NRC, on June 19, 1959. An accident involving core disruption occurred on April 3, 1960. This incident, as well as other discontinued licensed operations, directly or indirectly caused contamination to the reactor and related components, systems and structures, as well as land areas and groundwater originally under or later transferred to the SNM-770 license. Westinghouse Electric Corporation (now Viacom) notified the AEC that the WTR had permanently ceased operations on March 22, 1962, some 37 years before CBS transferred the business conducted at Waltz Mill to Westinghouse Electric Company LLC. The WTR has been maintained in a storage condition under a possession-only license since that time. Certain other licensed facilities and equipment, such as the hot cells, were used for some period for reactor development work, but were taken out of service well before Westinghouse Electric Company LLC acquired the services business. Westinghouse Electric Corporation submitted the

⁶ See Letter from T.S. Michaels, NRC, to L.J. Briskman, CBS, of 4/13/00, "Order Approving the Transfer of Facility License for the CBS Test Reactor at Waltz Mill,

“Westinghouse Test Reactor, TR-2, Final Decommissioning Plan,” Rev. 0 (“TR-2 Plan”), to the NRC for approval by letter dated July 31, 1997. The NRC approved the TR-2 Plan in Amendment 8 to the TR-2 license, dated September 30, 1998.

The balance of the 850-acre Waltz Mill site is now operated by Westinghouse in accordance with the terms and conditions of NRC License SNM-770, in accordance with 10 C.F.R. Parts 30, 33, and 70. Westinghouse provides fuel, services, technology, plant design, and equipment to utility and industrial customers in the worldwide commercial nuclear electric power industry. Licensed operations at the Waltz Mill site support these activities in a variety of ways. The current licensed operations conducted on the site to support Westinghouse’s nuclear services business under this license involve a wide variety of operations and analysis, including: research and development, storage, decontamination, refurbishment, maintenance, and testing of contaminated equipment, components and supplies used to service nuclear power plants and other authorized users of licensed material; receipt, storage, preparation, and analysis of a wide variety of radioactive samples for radiochemical and other analyses and investigations; instrument testing, calibration, and reference; and storage.

The SNM-770 license also requires immediate remediation (beyond that required in the TR-2 Plan) of certain retired facilities, soils and groundwater which were contaminated as a result of operation of the TR-2 reactor and associated facilities and other licensed operations, now discontinued, and which have no potential use to Westinghouse in the course of its ongoing nuclear services business.⁷ Subsequent to the close of the sale, Westinghouse has supervised this

Pennsylvania from CBS Corporation to Viacom Inc. and Approving Conforming Amendment.”

⁷ Additional residual contamination that may not be associated with the Plans also exists on the site.

remediation as “project manager” for Viacom both for the SNM-770 and TR-2 licenses, pursuant to an “Agreement for Radiological Project Management, Engineering, and Field Services Provided by Westinghouse Electric Company LLC for Waltz Mill Remediation Project,” dated March 22, 1999 (“Project Management Agreement”). One of the arbitrations now pending between Westinghouse and Viacom arises from Viacom’s refusal to pay Westinghouse for services performed and expenses incurred pursuant to the Project Management Agreement.⁸

Westinghouse submitted a second “Demand for Arbitration and Statement of Claim” to the American Arbitration Association on November 8, 2002. That Demand concerns Viacom’s material breach of its obligations under the APA by failing to implement the remedial measures that are required under the Plans. Viacom, on the other hand, has chosen the NRC as the forum in which to advance its position. Obligations of both Viacom and Westinghouse under the APA could be affected by actions taken by the NRC. Viacom’s filings were apparently intended to gain an advantage in the arbitrations, or to advance its position outside the appropriate forum, the arbitrations. In a communication to the NRC, Viacom likewise has conceded that arbitration is the appropriate forum for these disputes.⁹

⁸ On October 2, 2002, Westinghouse filed this demand for arbitration in connection with Viacom’s wrongful refusal to pay Westinghouse for services performed and expenses incurred in connection with the Project Management Agreement. Viacom owes Westinghouse \$3,118,510 for services performed and expenses incurred under the terms of the agreement.

⁹ See Letter from R.K. Smith, Viacom, to NRC Document Control Center, of 3/25/02, “Viacom Inc., Westinghouse Test Reactor (WTR), License Number TR-2, Docket No. 50-22,” (“Transfer of the remaining facilities to the SNM-770 License has not been completed because of a dispute between Viacom and Westinghouse Electric Company, the SNM-770 Licensee. The parties are currently attempting to negotiate a settlement of various issues associated with the sale of the business. *If negotiations do not resolve the issues, the parties will then engage in mediation and arbitration.*”)(emphasis added.) (appended hereto as Exhibit 2).

C. Status of Decommissioning Activities Under the Licenses

As a result of contaminated retired facilities and soil and groundwater contamination resulting from the 1960 accident at the test reactor and other legacy operations, the Waltz Mill site was placed on the NRC Site Decommissioning Management Plan ("SDMP") in 1988. The NRC placed on the SDMP a number of sites which contained contamination sufficient to require regulatory attention from the NRC Staff. On the Waltz Mill site, contamination of regulatory concern is still present in the soil, certain retired facilities, and groundwater.¹⁰ See SECY-02-0169, "2002 Annual Update — Status of Decommissioning Program," dated September 18, 2002, Attach. 7 at 45. To address this situation, Westinghouse Electric Corporation (now Viacom) submitted two proposed plans to the NRC. As discussed above, the TR-2 Plan relates to certain elements of the decontamination and decommissioning of the former test reactor and its immediately associated facilities. The other plan, the "Waltz Mill Facility, SNM-770, Remediation Plan," Rev. 0 ("SNM-770 Plan") was submitted to the NRC on November 27, 1996. The two plans must be examined together to understand the integrated implementation of the plans for the site.

1. *TR-2 — Decommissioning Not Completed Under the Plan*

The NRC approved Revision 0 of the TR-2 Plan on September 30, 1998. That plan requires removal of the reactor vessel, the reactor vessel internal contents, and the biological shield. The TR-2 Plan further provides that, once these structures have been removed and

¹⁰ See also SECY-88-308, "Contaminated Material Licensee Facilities," dated October 31, 1988; SECY-90-121, "Site Decontamination Management Program," dated March 29, 1990. The SDMP was established to frame a strategy for NRC activities to address materials sites with sufficient levels of contamination to require special attention from the NRC Staff. Due to the complexity of the remediation issues discussed herein, any NRC decision to remove the site from the SDMP should broadly consider compliance with the Plans.

certain other steps taken, the remaining residual radioactivity and the former test reactor facilities will be transferred to the SNM-770 license, after which the remediation of the remaining structures covered by the TR-2 license would be continued in accordance with the SNM-770 Plan. Because Viacom committed to complete the work required by the Plans, it is required, even after the termination of the TR-2 license, to complete the remediation of the former test reactor facilities in compliance with the approved acceptance criteria associated with retired facilities in the SNM-770 Plan.

The TR-2 Plan was internally revised by CBS as of January 2000, to incorporate two NRC license amendments and an approved change under 10 C.F.R. § 50.59 for a third option for removing the WTR reactor vessel. (Revision 0 provided for either (1) Option 1, one-piece removal of the reactor vessel through an opening in the containment dome; or (2) Option 2, multi-piece reactor vessel removal through the Truck Lock.) Option 3 involved removal of a portion of the biological shield to facilitate removal of the reactor vessel, and lifting and down-ending the entire reactor vessel and internals out of the containment building through the Truck Lock.¹¹ See TR-2 Plan, Rev. 1, dated January 2000, at § 2.2.2.4. This revision was not submitted to the NRC for approval. As discussed below, this revision did not (and could not) change the objectives of the Plan or Viacom's obligations to fulfill all requirements of the TR-2 Plan, *i.e.*, to effect the complete removal of the biological shield. Viacom has addressed the requirements of the TR-2 Plan by removing the reactor vessel and certain other equipment but has not completed its obligations under the TR-2 Plan. Significant portions of the biological

¹¹ Option 3 was not considered initially because the level of radioactivity in the concrete was not initially known; it was assumed it was too radioactive to be removed separately. Subsequent core borings revealed that the concrete could be cut away, leaving the diameter of the vessel narrow enough to down-end and remove through the Truck Lock.

shield and contaminated piping integral to it remain, although Viacom has informed the NRC that its responsibilities under the TR-2 Plan have been completed.¹² Viacom seeks to take an impermissibly narrow view of its responsibilities, contrary to any reasonable reading of the APA¹³ and Viacom's commitments to the NRC. Nor has Viacom agreed to complete the remediation of the WTR facilities after transfer to the SNM-770 license, as required by the TR-2 Plan.

2. *SNM-770 — Remediation Not Completed Under the Plan*

The SNM-770 Plan addresses remediation of the radionuclide-affected soils and groundwater and the retired facilities¹⁴ on the site covered by the SNM-770 license.¹⁵ Following a June 10, 1998, request for additional information from the NRC, CBS proposed specific criteria relating to the levels of contamination that would be permitted to be present in retired facilities.¹⁶ Following the release criteria contained in the NRC "Guidelines for

See Meeting Minutes from October 15, 1999, WTR Radiation Safety Committee Meeting (appended hereto as Exhibit 3).

¹² *See Letter from P.M. Madden, NRC, to R.K. Smith, Viacom, of 9/6/02, "NRC Inspection Report No. 50-22/1999-02." See also Exhibit 2.*

¹³ *The APA was provided to the NRC by CBS pursuant to the NRC's request and as part of the CBS applications for transfers and amendments of its various materials licenses, QA program approvals, and certificates of compliance. See Letter from A.J. Nardi, CBS, to C. Paperiello, NRC, of 11/24/98, "Application for Transfers and Amendments of Quality Assurance Program Approvals and Certificates of Compliance."*

¹⁴ *The soils and retired facilities are delineated in Section 4 of the SNM-770 Plan. See SNM-770 Plan, Table 4-1.*

¹⁵ *The site as defined under the SNM-770 license excludes the TR-2 reactor and, therefore, the byproduct material associated with that license. This is discussed further below in Section IV.B.1.*

¹⁶ *See Letter from A.J. Nardi, CBS, to M. Miller, NRC, of 6/19/98, "Submittal of Additional Information to Support Application for Approval of Remediation Plan"(appended hereto as Exhibit 4).*

Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material,” dated May 1997, CBS committed to the following release criteria for retired facilities:

- Surfaces or equipment within buildings that are being remediated from inactive areas to restricted areas which may be used under the license in the future will be decontaminated to levels which do not exceed four times the unrestricted release criteria for total contamination. In addition, a reasonable effort shall be made to remove inactive (no potential for future use) contaminated pipes, drain lines, or ductwork within areas which may be used under license in the future.
- Areas within buildings and separate buildings that are being converted over from inactive (retired) areas to unrestricted areas within the controlled area of the site will be decontaminated to levels which do not exceed unrestricted release criteria.¹⁷

The NRC approved these criteria for buildings in a letter dated August 21, 1998.¹⁸

The NRC also questioned the proposed soil remediation criteria presented in the SNM-770 Plan. The NRC and CBS determined that, due to existing groundwater contamination, the unrestricted release of impacted areas on the site would not be practical prior to the year 2024. Accordingly, Westinghouse, on behalf of CBS, ultimately submitted, on August 9, 1999, a revised soil remediation plan (“Revised Soil Plan”) which would remediate radiologically contaminated soil and groundwater and allow for the decay of the radioactive material, leading to future unrestricted release. At the same time, a request was made for approval of an alternate schedule for completion of decommissioning.

The Revised Soil Plan, however, did not address all soil areas covered by the SNM-770 Plan. In its August 9 letter, submitted by Westinghouse on behalf of Viacom, Viacom

¹⁷ See *id.*, Attach. 1.

¹⁸ Letter from M.C. Roberts, NRC, to J. Nardi, CBS, of 8/21/98. This letter changed only the criteria for remediation, not the facilities to be remediated or the entity responsible.

committed to address these “remaining portions of the soil” separately.¹⁹ No such information has yet been submitted to the NRC despite continued assurances by Viacom that the report would be prepared. Viacom has steadfastly refused to fulfill its commitment. Notwithstanding that, the NRC ultimately approved the SNM-770 Plan, as revised, by license amendment issued on January 19, 2000.²⁰ The commitment to provide the remainder of the Revised Soil Plan to the NRC still constitutes a regulatory obligation that was not simply erased or voided by the NRC’s approval of the specific portions of the plan submitted.

While Westinghouse is the licensee ultimately responsible for decommissioning and decontamination under the SNM-770 license, a responsibility from which it does not shrink, it, as well as the NRC, relied on the commitments of Viacom regarding decommissioning and remediation of legacy contamination. All information regarding the Revised Soil Plan was submitted by Westinghouse as Project Manager on behalf of CBS, pursuant to the Project Management Agreement. CBS, predecessor of Viacom, specifically communicated to the NRC its intent to implement all remedial measures under the SNM-770 Plan with respect to Retired Facilities, as well as provide all decommissioning financial assurance associated with the TR-2 license and portions of the financial assurance for the SNM-770 license.²¹

¹⁹ Letter from A.J. Nardi, Westinghouse, to Licensing Assistance Team, NRC, of 8/9/99, “Submittal of Additional Information to Support Remediation Plan for License Number SNM-770 (Docket No. 70-648) — Mail Control #124413,” (appended hereto as Exhibit 5). *See also* Letter from A.J. Nardi, Westinghouse, to R.R. Bellamy, NRC, dated January 11, 2000 (“Section 2.1.2.5 of the [SNM-770 Plan] . . . provides a reference to soil areas of the site not covered in the revised soil plan submitted August 9, 1999. These specific areas will be addressed in a separate submittal to be made by July 31, 2000.”)

²⁰ *See* Letter from R.R. Bellamy, NRC, to A.J. Nardi, CBS, of 1/19/00.

²¹ *See* Letter from L.J. Briskman, CBS, to NRC Document Control Desk, “Application for Transfers and Amendments of Materials Licenses,” of 9/28/98 (appended hereto as Exhibit 6).

D. The Matters in Dispute

1. *TR-2 Plan*

In a letter to Westinghouse dated July 5, 2000, Viacom stated that it had removed the reactor vessel and reactor vessel internals, and that the vessel was shipped offsite on May 15, 2000, for processing and disposal. Viacom also stated that those portions of the biological shield necessary for vessel removal had been dismantled, and were in the process of being shipped offsite for disposal. Viacom requested that Westinghouse accept transfer of the remaining WTR facilities from the TR-2 license to the SNM-770 license, so that Viacom could request that the NRC terminate the TR-2 license.²²

In a response dated August 1, 2000, Westinghouse stated that Section 1.2 of the TR-2 Plan provides that transfer may be requested once reactor vessel internals, the reactor vessel and the biological shield, as described in Revision 1 of the TR-2 Plan, are removed.²³ Westinghouse stated that Viacom had not yet complied with these conditions, since the TR-2 reactor building still contained portions of the biological shield. Accordingly, termination of the TR-2 license by Viacom and the associated transfer of materials to SNM-770 were premature

²² See Letter from M.T. Sweeney, Viacom, to C. Pryor, Westinghouse, of 7/5/00, "Transfer of Remaining Westinghouse Test Reactor (WTR) Facilities to the Westinghouse Waltz Mill SNM-770 License" (appended hereto as Exhibit 7). Viacom specifically requested that Westinghouse (1) confirm its agreement to accept the remaining WTR facilities and residual contamination onto the SNM-770 license by July 31, 2000; and (2) submit a license amendment request to the NRC by August 31, 2000, for SNM-770, accepting the transfer of the remaining WTR facilities and residual contamination and incorporating the facilities into the SNM-770 Plan.

²³ Westinghouse is providing a chronology of events through reference to the exchange of correspondence between the two companies, to provide balance to the self-serving letters provided by Viacom in its filings. See Request, Exhibits 3 and 4; Petition, Exhibits 3, 4 and 5.

and not warranted.²⁴ In addition, because the reactor containment building would not be reused,²⁵ Westinghouse requested that Viacom confirm its understanding that the transferred facilities would be added to the retired facilities list and be remediated in accordance with the unrestricted release criteria applicable under the SNM-770 Plan.²⁶ Throughout, Westinghouse has continued to voice its strong commitment to meet its obligations under the APA and ultimately accept transfer of the TR-2 facilities under the SNM-770 license, once assured that Viacom will meet all its obligations under the agreement. Since that time, Viacom has demobilized and refused to commit to complete remediation pursuant to its obligations under the TR-2 license and continue the remediation after the facilities are transferred to the SNM-770 license.

2. *SNM-770 Plan*

The SNM-770 Plan requires remediation of certain retired facilities and soil areas contaminated by the legacy CBS operations, including highly contaminated "hot cells," the nuclear fuel transfer canal, the former low-level waste pad, the process drain line, and numerous associated rooms, facilities and components that have no potential for future use in licensed

²⁴ Letter from F.R. Coates, Westinghouse, to M.T. Sweeney, Viacom, of 8/1/00, "Transfer of Remaining Westinghouse Test Reactor (TR-2) Facilities to the Westinghouse Waltz Mill SNM-770 License"(appended hereto as Exhibit 8).

²⁵ Westinghouse had determined that the reactor building and associated structures, including those originally licensed for activities covered by license SNM-770, had no use associated with its ongoing business, for a number of reasons, including its (1) location on the site (distant from the other locations where radioactive materials are being utilized under the SNM-770 license), (2) lack of climate-controlled space, (3) rather small footprint, and (4) deteriorating condition.

²⁶ Letter from M.W. Jackson, Westinghouse, to W.D. Wall, Viacom, of 12/20/00, "Transfer of Remaining Westinghouse Test Reactor (TR-2) Facilities to the Westinghouse Waltz Mill SNM-770 License."

activities. Viacom did not complete remediation in accordance with the criteria approved by the NRC in any of these areas.

Although its failure to fulfill remediation requirements extends to all parts of the retired facilities, the following examples of Viacom's conduct are illustrative. Instead of cleaning several highly contaminated hot cell door wells and floor penetrations to the required criteria, Viacom simply filled them with grout and added shielding, leaving significant contamination. In addition, contractors performing work discovered waste that had been left in the facility, including a highly contaminated fuel rod segment. Despite protests from Westinghouse, Viacom has refused to accept responsibility to properly remediate these areas, given that they have no use to Westinghouse in its ongoing licensed activities. Furthermore, although Viacom attempted to remediate the process drain line, its efforts were not successful even in stabilizing the contaminated piping. Viacom has steadfastly refused to address this situation and complete the remediation requirements under the SNM-770 Plan.

In addition, Viacom did not complete soil remediation in accordance with the Revised Soil Plan, approved by the NRC as part of the SNM-770 Plan on January 19, 2000, before it abandoned remediation. Viacom has unilaterally stopped its cleanup efforts at arbitrary boundaries, even though it knew or should have known that contiguous contamination remained unremediated and that areas within the remediated boundaries had not been addressed even though soil contamination existed therein. Moreover, substantial areas of soil that were contaminated by the legacy operations are not addressed by the Revised Soil Plan but are still the responsibility of Viacom. When the Revised Soil Plan was submitted to the NRC, CBS, acting through Westinghouse, committed to the NRC to address the "other contaminated soil areas"

separately.²⁷ To date, despite repeated demands from Westinghouse, Viacom has not addressed the question of how contamination, already known and characterized, in areas of the site not addressed by the Revised Soil Plan should be remediated. Viacom incorrectly contends that the legacy contamination in areas of the site currently in use by Westinghouse need not be addressed at all. In sum, Viacom has flatly refused to remediate the contamination in the “other contaminated soil areas,” contrary to its written commitment to do so.

As a result of (1) Viacom’s failure to complete the remediation required by the TR-2 Plan, (2) Viacom’s breach of its obligation to complete the remediation required under the SNM-770 Plan related to structures and soil contamination, and (3) Viacom’s refusal to commit as required by the SNM-770 Plan to complete appropriate remediation of the legacy contamination, including the former test reactor and associated facilities after they are transferred to the SNM-770 license, and refusal to pay invoices for remediation costs incurred, Westinghouse has not accepted transfer of the former test reactor facilities and the associated radioactive contamination to the SNM-770 license now held by Westinghouse, and has declined to provide to Viacom certain survey data. Instead, Westinghouse has followed the terms of its contract with Viacom and initiated arbitration.

IV. Discussion

As an initial matter, the Request should be treated as a petition pursuant to 10 C.F.R. § 2.206. Although not specifically a request for enforcement action, the Request seeks modification of the TR-2 license in connection with the request for enforcement action sought in its Section 2.206 petition. In addition, the Request includes the stated bases of Viacom for taking the action, and there is no other NRC proceeding available in which Viacom could be a

²⁷ See *supra* note 19.

party and through which its concerns would be addressed. See NRC Management Directive Handbook 8.11, "Review Process for 10 C.F.R. 2.206 Petitions," dated October 25, 2000, at 11 ("2.206 Handbook"). The Request is the obverse of the Section 2.206 petition, in that it is a prerequisite for the granting of relief requested under the Petition. Accordingly, consideration of the Request and the Petition should be consolidated. Consolidation is appropriate in that the filings (1) request parallel actions involving the same licensees; (2) specify essentially the same bases; and (3) were submitted at the same time. See 2.206 Handbook, at 12. Once consolidated, for the reasons described below, both the Petition and the Request should be denied.

A. Section 2.206 Petition

1. *This Petition Does Not Appropriately Fall Under the Rubric of Section 2.206.*

For a number of reasons, it would be inappropriate for the NRC to exercise its discretion to grant the Petition.²⁸ Initially, this dispute is in the process of resolution in another, more appropriate, forum. As mentioned above, on November 8, 2002, pursuant to the process set forth in the APA, Westinghouse filed a "Demand for Arbitration and Statement of Claim"

²⁸ The decision of the NRC Staff to take or not take enforcement action pursuant to Section 2.206 is purely discretionary. See *Consol. Edison Co. of N.Y.* (Indian Point, Units No. 1, 2, and 3), CLI-75-8, 2 NRC 173 (1975). There, the Commission held that, in reviewing a determination made under 10 C.F.R. § 2.206 to issue or refuse to issue a show cause order, the Commission will make a limited inquiry into whether, on the basis of the information then available, there has been an abuse of discretion. See *id.* at 175. This inquiry gives the Director broad discretion to act — or choose not to act. The Commission will consider: (1) whether the statement of reasons given permits rational understanding of the basis for decision; (2) whether the Director has correctly understood governing law, regulations, and policy; (3) whether all necessary factors have been considered, and extraneous factors excluded, from the decision; (4) whether inquiry appropriate to the facts asserted has been made; and (5) whether the Director's Decision is "demonstrably untenable on the basis of all information available to him." *Id.*; see also *Nuclear Regulatory Comm'n* (Licensees Authorized to Possess or Transport Strategic Quantities of Special Nuclear Materials), CLI-77-3, 5 NRC 16 (1977) (applying the same factors in reviewing a staff decision not to issue an order to show cause under 10 C.F.R. § 2.202).

with the American Arbitration Association. In its Demand, Westinghouse requests, among other things, (1) a judgment to Westinghouse in the amount it will be required to spend to complete remediation in accordance with Viacom's responsibilities under the purchase agreement; (2) a declaration that Viacom will be financially responsible for any additional remedial measures required by the NRC pursuant to the TR-2 Plan and SNM-770 Plan; and (3) a declaration that, as a result of Viacom's breach of the purchase agreement, Westinghouse is not contractually obligated to accept transfer of the former test reactor facilities and associated radioactive material from the TR-2 license to the SNM-770 license. These requests implicate issues identical to those set forth in Viacom's Petition, but allow for resolution in the appropriate commercial context.²⁹ In the past, the NRC has declined to take action on a Section 2.206 petition where the parties are seeking alternative remedies, including negotiation and arbitration. *See Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), DD-90-3, 31 NRC 595, 598 (1990). Accordingly, the NRC should dismiss this Petition.

Moreover, no legitimate regulatory purpose would be served by granting, or even considering, this petition. A principal objective of the Section 2.206 process is to "*ensure the public health and safety* through the prompt and thorough evaluation of any potential problem addressed by a [Section 2.206] petition." 2.206 Handbook, at 1 (emphasis added). It is well established that the institution of a Section 2.202 proceeding is only appropriate where "substantial health and safety issues have been raised." *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), DD-89-5, 30 NRC 73, 83 (1989); *Wash. Pub. Power Supply Sys.* (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 923 (1984); *Consol. Edison*

²⁹ There is no indication that, once the arbitrations are concluded, the parties will not act in accordance with those decisions to fulfill their financial responsibilities related to decommissioning and remediation.

Co. of N.Y. (Indian Point, Units No. 1, 2, and 3), CLI-75-8, 2 NRC 173, 176 (1975); *see also U.S. Dep't of Defense Users of Depleted Uranium*, DD-01-1, 53 NRC 103, 109 (2001) (denying a request to hold a hearing to consider the revocation of military licenses authorizing the use of depleted uranium, implementation of fines, and consideration of personal criminal liability, because "the Petitioner does not substantiate any significant health or safety concerns or significant violations of NRC requirements"). Here, however, the petitioner freely concedes that the underlying dispute does not implicate the public health and safety.³⁰ To institute a proceeding in such a situation, where the public health and safety is not at issue, would simply divert scarce NRC resources from more pressing issues without any corresponding regulatory benefit. It is beyond doubt that the NRC's resources are limited and the NRC directs such resources so as to best effect its mission to protect the public health and safety. For this reason as well, the petition should be denied.

The Petition raises a commercial and economic dispute which is appropriately resolved through the ongoing arbitration, as provided by contract. Contrary to its assertion (Pet. at 3) that it is not requesting a private right of action under Section 221c. of the Atomic Energy Act of 1954, as amended ("AEA"), Viacom is effectively requesting such an action, which is plainly impermissible. *See Envirocare of Utah, Inc. v. Nuclear Regulatory Comm'n*, 194 F.3d 72, 78 (D.C. Cir. 1999) (upholding the NRC denial of standing to competitors asserting economic injury). The requested order would require the NRC to take sides in the commercial

³⁰ *See* Pet. at 8 ("... Viacom does not believe that the circumstances as described in this Petition present an immediate threat to the public health and safety. This is because the residual radioactive contamination associated with the WTR is being carefully controlled and will remain within the responsible control of Viacom, in a site controlled by Westinghouse personnel, until a transfer to SNM-770 can be accomplished. For the same reason, the need for submission of survey data is not urgent.").

dispute, which it need not — and, indeed, should not — do.³¹ In summary, the Petition should be denied and the matter appropriately resolved through arbitration.

2. *Viacom, Not Westinghouse, Has Failed to Fulfill Its Commitments Under the NRC License.*

In the event the NRC decides to consider the petition under Section 2.206 and institute a proceeding, the issues that Viacom proffers are too limited to shape the inquiry which would be needed from a regulatory perspective to decide the relief which will ultimately assign specific responsibilities to each of the two entities under the licenses. Viacom, not Westinghouse, has not fulfilled its commitments made to induce the NRC to accept the combined plans of the licensees, Viacom and Westinghouse. The remedial work within the scope of Viacom's responsibility has fallen short of the measures required by the TR-2 Plan and SNM-770 Plan. Statements made and actions taken by Viacom indicate a clear lack of intent to fulfill its regulatory responsibilities. Moreover, the NRC has (1) relied on the commitments of Viacom, (2) imposed regulatory requirements on it for implementation of the SNM-770 Plan, and (3) maintains regulatory authority over Viacom to assure that its commitments are fulfilled whether or not it is specifically called out as a licensee on the SNM-770 license.

a. *Decommissioning Has Not Been Completed Under the TR-2 Plan.*

The current TR-2 Plan, Revision 1, provides in several places that the activities required for termination of the TR-2 license are removal of the (1) remaining reactor vessel internal contents, (2) reactor vessel, and (3) biological shield. See TR-2 Plan, at §§ 1.0, 2.2.2.4, 4.0. In particular, these discussions speak of removal of *the* biological shield, not merely portions of it. Following removal of these materials, a final survey will verify that the reactor

³¹ In fact, in its December 16, 2002, answer to Westinghouse's arbitration request, Viacom concedes that the findings requested from the NRC in the Petition and Request "may bear

vessel internals, reactor vessel, and biological shield have been removed.³² On its face, the TR-2 Plan requires removal of all three elements in their entirety.³³ Contrary to this mandate, Viacom terminated all work on the facility following removal of the reactor vessel internals, reactor vessel, and only those portions of the biological shield necessary to permit removal of the reactor vessel through the truck lock.³⁴ As stated above, Viacom, not Westinghouse, is not fulfilling its commitment to the NRC. Viacom, not Westinghouse, has failed to fully comply with the requirements set forth in the TR-2 Plan.

In 2000, the TR-2 Plan was revised to its current form, in part to incorporate a change implemented pursuant to 10 C.F.R. § 50.59. This Section 50.59 change was implemented principally to provide a third option for removing the WTR reactor.³⁵ It did not, however, consider or amend the criteria for decommissioning the facility. Although the Plan now contains some language referring to removal of “portions of” the biological shield (*see, e.g.,*

on some of the issues present here.”

³² See TR-2 Plan, at § 4 (“The method for determining that the WTR facility has met the decommissioning objectives and prerequisites for license termination will be an independent verification that the reactor vessel internal contents, the reactor vessel, and the biological shield have been removed.”).

³³ Indeed, in its Petition, Viacom concedes as much. See Pet. at 3 (“As stated above, *the DP provides specifically that when the reactor pressure vessel internals, the reactor vessel itself, and the biological shield have been removed, Westinghouse will request transfer of the remaining residual radioactivity and WTR facilities to the SNM-770 license.*”)

³⁴ See Letter from M.T. Sweeney, Viacom, to C. Pryor, Westinghouse, of 7/5/00, “Transfer of Remaining Westinghouse Test Reactor (WTR) Facilities to the Westinghouse Waltz Mill SNM-770 License.” See Exhibit 7.

³⁵ See Westinghouse Test Reactor Decommissioning Licensing Safety Evaluation, Proposed Change to the WTR Decommissioning Plan, dated September 1999 (appended hereto as Exhibit 9). This document clearly indicates that the focus of the amendment of the plan was simply to facilitate easier removal of the reactor vessel. The change cannot be broader than the evaluation which supports the action pursuant to 10 C.F.R. § 50.59.

TR-2 Plan, at §§ 2.2.2, 2.2.3), this was only in association with the action to remove the reactor vessel. The overall decommissioning criteria remain the same. Moreover, the change could not have been made under the auspices of Section 50.59. Section 1 of the Technical Specifications to the TR-2 license states as follows:

These Technical Specifications apply during the safe storage period, and also during decommissioning activities. *Decommissioning includes the dismantlement and removal of the reactor vessel internal contents, the reactor vessel, and the biological shield.* All residual radioactivity will then be transferred to the materials license for the remainder of the Waltz Mill Site, NRC License No. SNM-770. After completion of decommissioning and transfer of residual radioactivity to the materials license, the TR-2 license will then be terminated by the Nuclear Regulatory Commission. (Emphasis added.)

As it existed at the time, and even in its current form, 10 C.F.R. § 50.59 would not permit a licensee to make changes in the facility without prior NRC approval if the “proposed change, test or experiment involves a change in the technical specifications incorporated in the license”³⁶ Thus, Revision 1 could not effectively change the requirement that removal of the complete biological shield was a part of the decommissioning plan. Moreover, decommissioning criteria cannot be changed under Section 50.59, but require a written submission and NRC concurrence.

Contrary to the validly existing requirements, however, Viacom has not yet removed the lower portion of the biological shield (which has contaminated, unremediated radioactive pipes running through it), and has, in fact, stopped all remediation efforts on the site. Accordingly, Westinghouse has refused to accept transfer of the contaminated material from the TR-2 license to the SNM-770 license.

³⁶ 10 C.F.R. § 50.59(a)(1) (1998). Although that regulation has been extensively modified, even today such a change would require NRC approval. See 10 C.F.R. § 50.59(c)(1)(i) (2002).

In requiring that Viacom fulfill its obligations, Westinghouse recognizes that there was to be a continuum of remediation activities under the Plans.³⁷ The intent was to complete those activities necessary for decommissioning the TR-2 reactor and remediation of the retired facilities by Viacom under the auspices of the SNM-770 license. However, by word and deed, Viacom has indicated it does not intend to honor its obligations under SNM-770 with regard to legacy contamination, nor to complete the TR-2 facility remediation following the transfer to the SNM-770 license. The fact is that large portions of the reactor building, hot cells and other facilities associated with the legacy contamination, which are required to be remediated by Viacom, will not be used in "principal activities" for the Westinghouse nuclear services business, and there is no reasonable expectation that such a use will arise for these facilities during the life of the business. This is a determination to be made by the licensee.³⁸ For facilities that the licensee has determined will not be used in "principal activities," decommissioning must be started immediately and expeditiously completed. *See* 10 C.F.R. § 30.36(h)(1). Indeed, the specific remediation criteria for buildings as established and agreed to by Viacom explicitly apply to areas within buildings that are being used for other licensed activities.

b. *Viacom Has Failed to Fulfill Its Responsibilities Under the SNM-770 Plan.*

The SNM-770 Plan requires remediation of structures and soil areas contaminated by the discontinued CBS operations. With respect to structures, as discussed above, Viacom has

³⁷ *See* TR-2 Plan at § 1.2.

³⁸ *See* 10 C.F.R. § 30.36(d)(4). "Principal activities" are defined as "activities authorized by the license which are essential to achieving the purpose(s) for which the license was issued or amended." 10 C.F.R. § 30.4. Furthermore, "[s]torage during which no licensed material is accessed for use or disposal, and activities incidental to decontamination or decommissioning are not principal activities." *Id.*

not fulfilled its obligations under the existing agreements between Westinghouse and Viacom. Instead, Viacom has arbitrarily and unilaterally decided that some potential use must exist for these retired facilities in licensed activities. Viacom has made this determination in spite of the reality of the situation and the Westinghouse determination that no practical use exists, and has refused to apply the requisite criteria for unrestricted release. Even were it permissible to use the restricted release criteria, Viacom has failed to meet these criteria and simply terminated all work. *See* Section III.C.2, *supra*.

The contaminated soil areas identified during the site characterization effort under the SNM-770 License were to be remediated in accordance with the SNM-770 Plan. The Plan, in Section 4.1 and Figure 4.1, provides a comprehensive listing of all soil contamination identified during the extensive site characterization effort. An attachment to the Plan, titled "Waltz Mill Dose Assessment, Dose Conversion Factor Determination," provides the equivalent of DCGL values for all areas of the site. Section 2.1.2.5 applies to all soil areas of the site and states:

Site characterization studies [references omitted] identified limited areas of soil containing elevated levels of activity outside of the Solid and Liquid Waste Processing Area. These Areas will be remediated as necessary to meet the acceptance criteria in Section 4.1.

Thus, it is clear that the SNM-770 Plan included all contaminated soil areas on the site.

Viacom undertook some remediation with regard to soils, but did not complete soil remediation in accordance with the Revised Soil Plan before it abandoned remediation and declared itself finished. Additionally, substantial areas of soil on the Waltz Mill site that relate to legacy contamination and are not covered by the Revised Soil Plan remain contaminated. As noted above, when the Revised Soil Plan was submitted to the NRC, CBS committed to address

the “other contaminated soil areas” separately. To date, Viacom has refused to address the question of how contamination in those areas of Waltz Mill not addressed by the Revised Soil Plan should be remediated. Viacom takes the astounding and arbitrary position that the contamination caused by legacy operations in areas of the site currently in use by Westinghouse need not be addressed at all until the time of license termination.³⁹ This position is in direct conflict with the provisions of the Timeliness Rule. *See* 10 C.F.R. § 30.36(h).

For these reasons, in the event the NRC decides to issue an order in this matter pursuant to 10 C.F.R. § 2.202, such an order should also be directed to Viacom, instructing it to show cause why it should not begin immediately to (1) fulfill the conditions precedent to the license transfer by completing the decommissioning requirements under the TR-2 license; (2) fulfill its obligations under the SNM-770 license to continue to decontaminate the TR-2 facilities to standards (unrestricted release criteria) approved by the NRC, where Westinghouse has determined they are not appropriate for use in the ongoing service business;⁴⁰ (3) decontaminate the remaining SNM-770 retired facilities to standards approved by the NRC; and (4) complete remediation of contaminated soil and groundwater, and other legacy contamination, in accordance with criteria approved, or to be approved, by the NRC.

3. *Westinghouse’s Actions Do Not Constitute a Violation of 10 C.F.R. § 50.5.*

Viacom substantially raises its level of rhetoric in accusing individuals at Westinghouse of deliberate misconduct, when it is fully aware that Westinghouse has taken

³⁹ In at least one instance, Viacom has taken the position that these areas of soil fall into “operational areas” and, thus, need not be remediated by Viacom.

⁴⁰ The NRC has jurisdiction over former licensees for the purpose of decommissioning funding, as it has demonstrated in a recent license transfer proceeding. *See Power Auth. of N.Y.* (James A. FitzPatrick Nuclear Power Plant; Indian Point, Unit 3), CLI-01-14, 53 NRC 488 (2001) (finding jurisdiction over a former licensee in the area of decommissioning funding).

positions in good faith based upon its readings of the NRC regulations, the commitments that were made on the docket, and how such commitments were or were not fulfilled based upon the agreements between Westinghouse and Viacom. There has never been any attempt on the part of Westinghouse to circumvent regulatory objectives or violate NRC requirements.

Viacom falsely contends that Westinghouse's actions (specifically, its "refusal to cooperate in the transfer") (Pet. at 6) constitute a violation of the "deliberate misconduct" rule, 10 C.F.R. § 50.5, by virtue of its contractual relationship to Viacom as a provider of services under the Project Management Agreement. Specifically, Viacom argues that, because Westinghouse has not accepted the residual materials under SNM-770, and has not provided survey data to the NRC, Westinghouse causes Viacom to be in violation of the TR-2 Plan.⁴¹ Viacom requests an order to Westinghouse "requiring it to abate the violation of 10 C.F.R. § 50.5 by accepting transfer of the materials and making the data available to NRC." (Pet. at 7.) There is no merit in Viacom's argument, either factually or legally.

10 C.F.R. § 50.5 provides, in pertinent part:

Any licensee . . . may not:

(1) Engage in deliberate misconduct that causes or would have caused, if not detected, a licensee or applicant to be in violation of any rule, regulation, or order; or any term, condition, or limitation of any license issued by the Commission.

The purpose of Section 50.5 is to punish wrongdoers for actions which seriously impact the public health and safety, as clearly set forth in the proposed rule to institute the "deliberate misconduct" rule:

A situation in which it might be appropriate to issue an order . . . is the case of an employee of a licensee willfully causing that licensee to be in violation of Commission requirements. *As a*

⁴¹ To date, the NRC has not yet requested the survey data.

result of that individual's action, the Commission might no longer have reasonable assurance that requirements necessary to protect the public health and safety would be followed if that individual were to continue to engage in activities within the Commission's jurisdiction. Another example where an order to an individual might be appropriate is the case of an unlicensed individual who willfully provides an inspector, investigator, or other NRC employee with inaccurate or incomplete information on a matter material to the Commission's regulatory responsibilities. Additional examples include a supervisor who discharges an employee for raising safety concerns, a company officer who directs employees to provide false information to the NRC, an employee who falsifies records of required information, or an employee who willfully defeats alarms that have safety significance.

Proposed Rule, Willful Misconduct by Unlicensed Persons, 55 Fed. Reg. 12,374, 12,375 (Apr. 3, 1990) (emphasis added). The provision was clearly not designed for use in the resolution of commercial disputes such as this, and, in practice, has never been used by the NRC for that purpose, a fact which Viacom should know and appreciate. First, it is clear that no violation of Commission requirements exists here — indeed, as discussed above, if Viacom is, in fact, “in violation” of the TR-2 Plan, the situation exists because of actions (or a lack thereof) by Viacom itself.⁴² Westinghouse has not violated any NRC requirements and will not be intimidated by Viacom into turning over data or accepting radioactive material under its license until Viacom provides assurance that it will complete its responsibilities for site remediation under the Plans.

Second, 10 C.F.R. § 50.5 was intended to apply in instances which “reduce[] the NRC's confidence that if [] individuals were involved subsequently in licensed activities the activities would be conducted in a manner that adequately protects public health and safety.”

⁴² This allegation is an obvious attempt by Viacom to bypass its responsibilities under the Project Management Agreement. As noted above, on October 2, 2002, Westinghouse requested arbitration with respect to Westinghouse's and Viacom's relative responsibilities under the agreement and Viacom's failure to pay for services performed by Westinghouse or its subcontractors under the agreement.

Final Rule, Revisions to Procedures to Issue Orders; Deliberate Misconduct by Unlicensed Persons, 56 Fed. Reg. 40,664, 40,665 (Aug. 15, 1991). It has been used in egregious regulatory situations involving significant safety concerns, combined with issues associated with the integrity and trustworthiness of individuals. *See, e.g.*, Letter from J.E. Dyer, NRC, to K. Wierman, of 5/10/99, "Notice of Violation (NRC Office of Investigations Report No. 3-98-005), IA 99-021" (violation of 10 C.F.R. § 50.5 for the deliberate falsification of training records); Letter from L.A. Reyes, NRC, to J.R. Godwin, of 12/22/99, "Notice of Violation (NRC Office of Investigations Report No. 2-99-025), IA 99-060" (violation of 10 C.F.R. § 50.5 for intentional alteration of urine sample to avoid detection of illegal drug usage during a random drug screening); Letter from J.E. Dyer, NRC, to N. Everson, of 7/20/99, "Notice of Violation (NRC Office of Investigations Report No. 3-98-017), IA 99-031" (violation of 10 C.F.R. § 50.5 for bringing a handgun to the Zion Station, asking the x-ray operator not to report the incident, and subsequently attempting to give cash to the x-ray operator).

By contrast, Viacom states in its Petition (at 8) that, "[it] does not believe that the circumstances as described in this Petition present an immediate threat to the public health and safety" because "the residual radioactive contamination associated with the WTR is being carefully controlled and will remain within the responsible control of Viacom, in a site controlled by Westinghouse personnel, until a transfer to SNM-770 can be accomplished." The deliberate misconduct rule is simply not applicable in a commercial dispute such as this. Viacom raises Section 50.5 merely as an attempt to advance its pecuniary interests, and this tactic should be repudiated or ignored. Westinghouse has committed no violation of Section 50.5 with respect to the TR-2 or the SNM-770 licenses.

B. Request for Orders

In its Request, Viacom asks that the NRC issue two orders pursuant to 10 C.F.R. § 2.202, as follows: (1) an order terminating the 10 C.F.R. Part 50 “portion” of the TR-2 license; and (2) an order declaring that Viacom’s obligations to decommission the WTR in accordance with the TR-2 Plan have been completed satisfactorily, “except for actions which require the cooperation” of Westinghouse. (Request at 1.) As stated above, Westinghouse requests that this filing be treated as a Section 2.206 Petition, to be consolidated with the Petition discussed above. Although not itself a request for enforcement action, the Request seeks modification of the TR-2 license in connection with the request for enforcement action sought in the Petition, discussed above. Because the Request is essentially part and parcel of the Petition, the two should be considered together.

1. The NRC Is Not the Proper Forum for This Dispute.

As discussed above with respect to Viacom’s Petition, the Staff should decline to exercise its considerable discretion and deny this Request. Westinghouse has initiated arbitrations pursuant to the APA and the Project Management Agreement to settle the disputes over Viacom’s responsibilities for decommissioning the Waltz Mill site. These arbitration proceedings, described above, will permit resolution of the issues; insertion of the NRC into issues under arbitration at this time would unnecessarily complicate matters without contributing to the resolution of the commercial disputes.

Moreover, no legitimate regulatory purpose would be served by granting the requested orders. Specifically, Viacom requests an order declaring “(a) that all of Viacom’s obligations under the [TR-2 Plan] have been satisfied, except for the transfer of residual radioactive materials formerly held under TR-2 and submission of the survey, and (b) that it is

prepared to entertain the appropriate submissions from Westinghouse (if necessary through Viacom) that are needed to complete decommissioning under the [TR-2 Plan].” (Request at 3-4.) Such an order would at most serve only to document progress made under the TR-2 Plan, but would not achieve in any way a regulatory end. Viacom simply seeks a confirmation by the NRC that its version of decommissioning activities is the accurate one in an effort to gain leverage in the aforementioned commercial disputes.

Even were the Part 50 portion of the license to be terminated, Viacom still would be a licensee under the 10 C.F.R. Part 30 portion of the license.⁴³ Viacom apparently believes that once its license is reduced to a Part 30 license, the radioactive materials licensed thereunder simply (and almost automatically) can be melded into or transferred to the SNM-770 license without Westinghouse’s consent. This simply is not the case. The description of the location of activities under the current SNM-770 license does not include the WTR facilities. Figure 9.2.3-1 of the most recent application for license renewal recognizes the presence of the WTR on the site but notes that it is possessed and maintained under a separate license (TR-2).⁴⁴ Further, Item M of Table 5.1 (Table of Possession Limits) permits the possession of “contaminated structures, equipment, soil and debris” as limited as follows:

[p]ossession is limited to licensed material as contaminated structures, equipment, soil and debris, as described in the “SNM-770 Remediation Plan” dated November 27, 1996, that existed on December 31, 2001.⁴⁵

⁴³ It could be argued under 10 C.F.R. Part 30 that a more stringent standard and schedule would be applicable to Viacom to completely decommission the TR-2 contamination. *See* 10 C.F.R. § 30.36(h).

⁴⁴ *See* Westinghouse Electric Company LLC, “Application for Renewal, USNRC License Number SNM-770, Docket Number 070-00698,” Revision 1, dated June 6, 2002, at 9-19 (“June 6 Application”).

⁴⁵ June 6 Application, at 5-1, 5-3. The license issued by the NRC on June 24, 2002, does not specifically reference the SNM-770 Plan. Condition 24 states: “The licensee may

In any event, however, the material possessed by Viacom under the TR-2 license is held under a specific license, and cannot be held under the SNM-770 license without termination of that license and a license amendment to SNM-770 to permit possession of the material.

Viacom is correct in its assertion that, when the same entity held both licenses, the transfer of the residual material would have been straightforward. However, the transfer is not simply one of residual radioactive material being moved from one license to another. During conversations between representatives of Viacom, Westinghouse, and the NRC Staff in January, 2001, to discuss the format of the transfer application, the NRC Staff indicated that the transfer would constitute a change of control pursuant to 10 C.F.R. § 30.34(b). *See* NUREG-1556, Vol. 15, "Consolidated Guidance About Materials Licenses — Guidance About Changes of Control and About Bankruptcy Involving Byproduct, Source, or Special Nuclear Materials Licenses" (November 2000). To effect a transfer, there must be, among other things, a willing transferee and an opportunity to assure that the conditions of transfer have been met.⁴⁶ Neither of these criteria has been met. Westinghouse would be a willing transferee if Viacom were to ratify its obligations under the SNM-770 Plan, as previously discussed, to complete decommissioning and remediation, and take concrete steps to fulfill these obligations. Accordingly, a simple order is not possible.

With respect to the other requested order, which would terminate 10 C.F.R. Part 50 "portion" of the TR-2 license, as discussed below, the NRC should not issue the requested

possess the licensed material as contaminated structures, equipment, soil and debris that existed on December 31, 1996." However, even Condition 24 must be read as limited to possession and use on the identified site on which licensed activities take place, which excludes the situs of the WTR.

⁴⁶ *See* 10 C.F.R. § 30.41(b)(5).

order because Viacom has not complied with NRC regulatory requirements for termination of the license, in full or in part. In any event, even were the Part 50 portion of the license dropped, the remaining Part 30 license would require Viacom to complete decommissioning and would not automatically result in Westinghouse being required to assume responsibility for the byproduct material under the SNM-770 license.

2. *Viacom Has Not Met the Requirements of 10 C.F.R. § 50.82(b)(6) for Termination of the TR-2 License, and Does Not Qualify for an Exemption Pursuant to 10 C.F.R. § 50.12.*

Viacom requests that the NRC issue an order pursuant to 10 C.F.R. § 2.202 terminating the 10 C.F.R. Part 50 portion of the TR-2 license. Because Viacom does not meet the prerequisites set forth in 10 C.F.R. § 50.82(b)(6), license termination is not appropriate at this time.

10 C.F.R. § 50.82(b)(6) provides:

(b) For non-power reactor licensees: . . .

(6) The Commission will terminate the license if it determines that:

(i) The decommissioning has been performed in accordance with the approved decommissioning plan, and

(ii) The terminal radiation survey and associated documentation demonstrate that the facility and site are suitable for release in accordance with the criteria for decommissioning in 10 C.F.R. Part 20, Subpart E.⁴⁷

⁴⁷ Viacom contends that Section 50.82(b)(6) is not "strictly applicable," because it is requesting only partial license termination. However, the regulation does not distinguish between the two. This is the regulatory criterion to be applied for license termination, full or partial, and should be applied in this situation. Moreover, in a telephone call on May 17, 2000, Viacom was advised by NRC Staff that a request for exemption would be required in association with a license termination request.

In its recent inspection report dated September 6, 2002, the NRC states itself that work remains before license termination can be accomplished. The inspection report states:

Although this inspection documents the removal of the reactor vessel internal contents, the reactor vessel, and the biological shield, you should note that two provisions of the Final Decommission [sic] Plan still need to be accomplished prior to termination of the TR-2 license. These are determining the residual radioactivity remaining in-situ and preparing the necessary amendments for and requesting the transfer of the remaining residual radioactivity and WTR facilities to the SNM-770 license.⁴⁸

On its face, the NRC finding states that the license cannot be terminated at this time. Westinghouse does not agree that the two items mentioned are the only activities remaining to be completed before the license can be terminated.⁴⁹ Viacom does not meet the requirements of Section 50.82(b)(6) because it has not performed decommissioning under the TR-2 license in accordance with the TR-2 Plan. Moreover, current survey data cannot demonstrate that the facility is suitable for release in accordance with the decommissioning criteria.⁵⁰ Accordingly, 10 C.F.R. § 50.82(b)(6)(i) and (ii) have not been met, and the license cannot be terminated, even in part, at the present time.⁵¹

⁴⁸ Letter from P.M. Madden, NRC, to R.K. Smith, Viacom, of 9/6/02, "NRC Inspection Report No. 50-22/1999-202."

⁴⁹ Westinghouse also does not believe that it was the NRC's intent, in an incidental remark in the cover letter to an inspection report (which is given little, if any, management review), to give a definitive NRC pronouncement on such an important and complicated issue.

⁵⁰ Viacom states (Request at 2) that Westinghouse refuses to supply Viacom with the survey of residual radioactive materials that has been prepared for the TR-2 decommissioning project. Westinghouse understands and intends to perform its duties as Project Manager for the Waltz Mill site, and will freely provide this survey data to both Viacom and the NRC, provided there is an understanding that the current survey data do not indicate completion of decommissioning under the TR-2 Plan. Due to the current state of decommissioning activities under the TR-2 Plan, the data can only serve to document the status of the decommissioning activities at the site, as additional work

Thus, as Viacom apparently has conceded, in order to terminate its Part 50 license, it would require an exemption pursuant to 10 C.F.R. § 50.12. Section 50.12 provides, in pertinent part:

- (a) The Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of the regulations of this part, which are
 - (1) Authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security.
 - (2) The Commission will not consider granting an exemption unless special circumstances are present.

The regulations set forth six instances in which “special circumstances” will be present. *See* 10 C.F.R. § 50.12(a)(2)(i)-(vi). Exhibit A to the Request sets forth Viacom’s recitation of “special circumstances.” Specifically, Viacom contends that special circumstances are present pursuant to 10 C.F.R. § 50.12(a)(2)(ii).⁵² Viacom states that the underlying purpose of Section 50.82(b)(6) is “to describe the requirements that must usually be met for license termination, one of which is that the results of the terminal radiation survey and other documentation show that the facility and site meet the requirements for release in 10 CFR Part 20, subpart E.” In this case, Viacom contends that, because residual materials will remain under the license under the same conditions of use, and the site will not be released because of continued operations under SNM-

remains to be done before remediation is complete under the TR-2 Plan. Clearly, it does not demonstrate that the requirements of 10 C.F.R. Part 20, Subpart E, have been met.

⁵¹ Even if the NRC were to terminate the Part 50 portion of the license, that action would not decide the instant dispute. Thus, granting this relief must be for the purpose of gaining additional leverage in the contractual dispute.

⁵² That section provides that “special circumstances are present whenever . . . [a]pplication of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule” 10 C.F.R. §50.12(a)(2)(ii).

770, application of the rule is not necessary to terminate the Part 50 "portion" of the license because termination will not result in site release under Subpart E.⁵³ The grant of an exemption would not fulfill any regulatory purpose and should be denied. It does not purport to positively impact the public health and safety, but is merely another artifice to advance Viacom's pecuniary interests. The regulation was intended to assure the fulfillment of conditions associated with license termination, and to assure that agreed-upon release criteria have been met. Here, Viacom has not met the conditions for license termination and refuses to accept responsibility for remediation to criteria to which it previously agreed. Special circumstances are not present here and no exemption should be granted. As support for its exemption request, Viacom cites to a so-called "similar" exemption in connection with the termination of license R-117 for the University of Illinois. As discussed below, that case is inapposite.

In the Illinois example, the university requested authorization to decommission its Low Power Reactor Assembly ("LOPRA"), which was located in the bulk shielding tank of an

⁵³ This statement by Viacom that the material will remain "under the same conditions of use" ignores the fact that there is no licensed use for this licensed material, whether possessed by Viacom or Westinghouse. Upon transfer of the material to a Part 30 license, with no intended principal licensed use, and given that the material is located in a separate building, the requirements of 10 C.F.R. § 30.36, the Timeliness Rule, will apply and require remediation in accordance with the provisions of 10 C.F.R. Part 20, Subpart E. Viacom has not submitted any request for an alternate decommissioning schedule, yet continues to assume that the final decommissioning of the TR-2 facility will occur at the time of final site decommissioning and termination of the SNM-770 license. Viacom glibly states in its Request (at 3):

It was never the concept of the [TR-2 Plan] that completion of decommissioning under it would lead to application of Part 20, subpart E. Instead, as the [TR-2 Plan] provides, it was envisioned that Part 20, subpart E would be applied at a later date, some 25 years into the future, when active operations at the Waltz Mill Site under SNM-770 ceased.

Such a view is never stated in the TR-2 Plan. This Viacom position is another example of its attempt to minimize its responsibilities at the expense of Westinghouse.

operating TRIGA reactor (NRC license R-115, also held by the university), to return it to a subcritical assembly for teaching purposes, its original use prior to its conversion into a utilization facility. The licensee under both licenses was the same, and the assembly was not being decommissioned, but rather utilized intact (except for a few fuel elements) for teaching purposes, a principal licensed activity. There was no dispute over the transfer and no significant contamination. (Indeed, the estimated cost to decommission the LOPRA was \$66,000.)⁵⁴ It was in this circumstance that the NRC found that, because *all* licensed material was transferred from the LOPRA license, and because the TRIGA and site would continue to be under an NRC license, there was no facility or site to be released for unrestricted use as part of the license termination, and a terminal radiation survey was not needed to terminate the license.⁵⁵

The factual situation surrounding the LOPRA exemption differs significantly from the situation at hand and does not constitute a precedent for the requested relief. First, and most importantly, the current situation involves separate licensees. The University of Illinois was the single licensee under both the LOPRA and the TRIGA licenses. Second, in the case of the University of Illinois, the LOPRA was located *in the same building* as the TRIGA reactor still in operation. Here, although the facilities are on the same site, the TR-2 and SNM-770 Plans involve wholly separate decommissioning and remediation activities and criteria, which must be satisfied separately. Third, in the Illinois case, there was an ongoing intent to utilize LOPRA material in licensed activities under the TRIGA license as it previously had been utilized. Here, the WTR facility and all components and radioactive materials residual thereto are to be wholly

⁵⁴ See Letter from R.L. Holm, University of Illinois, to A. Adams, NRC, of 10/2/96.

⁵⁵ See Letter from A. Adams, NRC, to R.L. Holm, University of Illinois at Urbana-Champaign, of 7/16/97, "Order Terminating Facility Operating License No. R-117 — University of Illinois at Urbana-Champaign Lower Power Reactor Assembly (TAC No. M98404)."

retired. The total cost involved there was \$66.00, whereas here the requirements are complicated and costly. Because the factual scenarios differ significantly, the Illinois example is not precedent for the current situation.⁵⁶ The requested exemption should be denied.

V. Conclusion

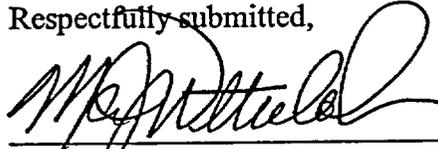
No legitimate regulatory purpose would be served by granting, or even considering, this petition. While Viacom glibly argues that the actions it requests from the NRC are separate and apart from contractual obligations and the related dispute, this is clearly not the case. Rather, Viacom seeks to advance its position in the ongoing contractual disputes. Viacom knew its remedy under the purchase agreement with Westinghouse is arbitration, yet it is Westinghouse that seeks such a remedy. Because the appropriate (and previously designated) forum for resolution of this commercial dispute is arbitration, the NRC should decline to issue the requested orders. Indeed, the two submittals completely fail to fulfill the requirements for a Section 2.206 petition such that the NRC should exercise its discretion to not accord them further consideration.

In the event the NRC decides to take up the matter and issue one or more orders pursuant to 10 C.F.R. § 2.202, such action also should be directed to Viacom. The order should instruct Viacom to (1) fulfill the conditions precedent to the license transfer by completing decommissioning requirements under the TR-2 Plan; (2) fulfill its obligations under the SNM-770 Plan to continue to decontaminate the TR-2 facilities to standards (unrestricted release criteria) approved by the NRC, where Westinghouse has determined such facilities are not appropriate for use in the ongoing nuclear services business; (3) decontaminate the remaining

⁵⁶ Westinghouse would not oppose the grant of an exemption under Section 50.12 provided that Viacom commits to fulfill its decommissioning responsibilities under the SNM-770

SNM-770 retired facilities to standards approved by the NRC, and (4) complete remediation of contaminated soil and groundwater, and legacy contamination, in accordance with criteria approved, or to be approved, by the NRC.

Respectfully submitted,



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ATTORNEYS FOR
WESTINGHOUSE ELECTRIC COMPANY LLC

Dated in Washington, District of Columbia
this 20th day of December 2002

and TR-2 Plans as discussed herein. Until such time, however, an exemption should not be authorized.

December 20, 2002

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE EXECUTIVE DIRECTOR FOR OPERATIONS

In the Matter of:)
)
Westinghouse Electric Company LLC) Docket Nos. 70-698
) 50-22
(Waltz Mill, Pennsylvania,)
License No. SNM-770))
)
and)
)
Viacom Inc.)
)
(Westinghouse Test Reactor,)
License No. TR-2))

CERTIFICATE OF SERVICE

I hereby certify that the "RESPONSE OF WESTINGHOUSE ELECTRIC COMPANY LLC TO REQUEST OF VIACOM INC. FOR ORDERS AND PETITION PURSUANT TO 10 C.F.R. § 2.206" have been served as shown below by overnight mail (as indicated by an asterisk), or by deposit in the United States mail, first class, this 20th day of December, 2002.

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LOUIS J. BRISKMAN
 VICE PRESIDENT
 GENERAL MANAGER

50-22

September 28, 1998

Mr. Samuel J. Collins, Director
 Office of Nuclear Reactor Regulation
 U. S. Nuclear Regulatory Commission
 Washington, D.C. 20555-0001

Subject: Request For A Name Change Amendment to License Number TR-2,
 Docket Number 50-022

Dear Mr. Collins:

CBS Corporation, acting through its Westinghouse Electric Company division ("CBS")¹ hereby submits this Application for a license amendment to the possession only license for the Westinghouse Test Reactor, License Number TR-2, Docket Number 50-022 (the "TR-2 License"). The purpose of the Application is to change the name of the Licensee on the TR-2 License from "CBS Corporation acting through its Westinghouse Electric Company division" to "CBS Corporation". No other revision to the TR-2 License is requested.

On June 26, 1998, CBS announced that it had entered into a contract with a consortium comprised of Morrison Knudsen Corporation and BNFL USA Group, Inc. (the "Purchasers") for the sale (with certain exceptions) of its nuclear and government services businesses, which comprise its Westinghouse Electric Company division. As part of that sale, the majority of the existing nuclear licenses for CBS's nuclear facilities will be transferred to a new company that is being formed by the Purchasers to hold the assets and facilities associated with the transferring licenses. The Westinghouse Test Reactor facility ("WTR facility") and associated TR-2 License will not be transferred as part of the sale and will be retained by CBS. CBS also will retain the responsibility to decommission the facility and terminate the license in accordance with the current "Decommissioning Plan" that has been submitted for review and approval by the NRC.

¹ On December 1, 1997, Westinghouse Electric Corporation formally changed its name to CBS Corporation.

Mr. Samuel J Collins, Director
Office of Nuclear Reactor Regulation
September 28, 1998
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The reason for the requested amendment to the TR-2 License being retained by CBS is due to the fact that the Purchasers will have the right to continue using the Westinghouse name in connection with the CBS nuclear assets and facilities they will acquire in the sale.

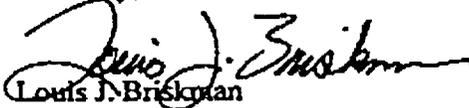
The requested name change does not involve any change in the CBS management organization, location, facilities, equipment, or procedures related to or personnel responsible for the licensed activities under the license covered by this request. All existing commitments, obligations, and representations remain in effect.

In support of this Application for a license amendment, attached is an "Analysis of the Issue of No Significant Hazards Consideration" (Exhibit A), information concerning a change in contact point for the License (Exhibit B), and information concerning the financial assurance for decommissioning (Exhibit C).

The fee for this request for license amendment is subject to full cost recovery of the review. CBS will pay these fees upon billing by the NRC in accordance with 10 CFR Section 170.12.

If you have any questions concerning this application, please contact Mr. A. Joseph Nardi at the above address or by telephone at (412) 374-4652.

Sincerely,



Louis J. Briseman
Executive Vice President and General Counsel

LJB/jmg

cc:

Richard K. Smith, Director
Environmental Remediation,
CBS Corporation

A Joseph Nardi, Supervisory Engineer
EHS Regulatory Affairs,
Westinghouse Electric Company, a division of CBS Corporation

Copies Transmitted 3 notarized and 15 conformed

Mr. Samuel J. Collins, Director
Office of Nuclear Reactor Regulation
September 28, 1998
Page 3

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF ALLEGHENY)

Before me, the undersigned notary public, this day personally appeared Louis J. Briskman, Executive Vice President and General Counsel, CBS Corporation, 6 Gateway Center, 11 Stanwix Street, Pittsburgh, PA 15222 to me known, who being duly sworn according to law, deposes and says: that the statements sworn to in this letter and attachment are correct and accurate to the best of his knowledge.

Louis J. Briskman
Signature of affiant

Subscribed and sworn to before me
this 15th day of September, 1998

Jody Grant
Notary Public

Notarial Seal
Jody Grant, Notary Public
Pittsburgh, Allegheny County
My Commission Expires Nov '3 2000
Member Pennsylvania Association of Notaries

EXHIBIT A

**ANALYSIS OF
NO SIGNIFICANT HAZARDS CONSIDERATION
FOR NAME CHANGE AMENDMENT OF THE
WESTINGHOUSE TEST REACTOR FACILITY
LICENSE NUMBER TR-2, DOCKET 50-022**

**ANALYSIS OF
NO SIGNIFICANT HAZARDS CONSIDERATION
FOR NAME CHANGE AMENDMENT OF THE
WESTINGHOUSE TEST REACTOR FACILITY
LICENSE NUMBER TR-2, DOCKET 50-022**

REFERENCE 10 CFR 50.91(a)

The proposed change that is the subject of the requested amendment has been evaluated against the standards of 10 CFR 50.92(c) and it has been determined to not involve any significant hazards consideration in that licensed activities in accord with the proposed amendment:

- 1) *Would not involve a significant increase in the probability or consequences of an accident previously evaluated.*

The proposed amendment will change the name of the Licensee for the Westinghouse Test Reactor ("WTR facility") TR-2 license, a possession only license (the "TR-2 License"), from "CBS Corporation, acting through it's Westinghouse Electric Company Division" to "CBS Corporation"¹. The amendment request is necessary because on June 26, 1998 CBS Corporation ("CBS")² announced that it had entered into a contract with a consortium comprised of Morrison Knudsen Corporation and BNFL USA Group, Inc. (the "Purchasers") for the sale (with certain exceptions) of it's nuclear and government services businesses, which comprise its Westinghouse Electric Company division. The WTR facility and the associated TR-2 License is not being transferred to the new company that is being formed by the Purchasers to hold the nuclear assets and facilities, and associated nuclear licenses, that will be transferred under the terms of the sale. CBS will retain the WTR facility and TR-2 license and the responsibility to continue the on-going decommissioning and license termination activities in accordance with the "Decommissioning Plan" that has been submitted to the NRC for review and approval. (See "Waltz Mill Facility SNM Remediation Plan, Revision O," dated November, 27 1996.) The need for the requested amendment to the TR-2 License being retained by CBS is due to the fact that the Purchasers will have the right to continue using the Westinghouse name in connection with the CBS nuclear assets and facilities they will acquire in the sale.

There is no change in the financial qualification of CBS to continue to hold the TR-2 License. In order to complete the decommissioning of the WTR facility as

¹ This name change was issued as Amendment No. 7 (July 31, 1998) to the license

² On December 1, 1997, Westinghouse Electric Corporation formally changed its name to CBS Corporation.

described in the Decommissioning Plan, CBS has entered into contracts with several third party organizations as described in the Decommissioning Plan. These contracts will remain in place between CBS and each respective third party so that there will be no effective change in the personnel associated with the on-going decommissioning project under the TR-2 License. CBS will continue to retain full responsibility for the project and will therefore continue to provide direct management oversight in the form of project management personnel who will remain CBS employees or are contractor personnel reporting directly to CBS.

Under the provisions of the Decommissioning Plan, personnel at the Waltz Mill Site currently provide certain oversight activities with respect to radiation safety for the WTR facility decommissioning project. These oversight activities primarily involve the review and approval of the decommissioning activities utilizing the Radiation Safety Committee that is established under the site's active SNM-770 license. The assets and facilities, including personnel, associated with the SNM-770 license will be transferred to the Purchasers as part of the sale transaction. It therefore will be necessary for CBS and the Purchasers to continue to coordinate the activities conducted under the active SNM-770 license that support the TR-2 decommissioning activities. CBS Corporation will establish an on-going relationship with the Purchasers prior to the closing of the sale transaction to continue such site oversight activities provided by the Waltz Mill Site under license SNM-770, as described in the Decommissioning Plan.

In summary, the CBS personnel responsible for decommissioning activities under the TR-2 License will continue to be technically qualified to carry out licensed activities. In connection with the name change, there will be no effective change in the personnel who are responsible to complete the TR-2 License decommissioning effort as described in the Decommissioning Plan, although there will be one new relationship established between CBS and the purchasers to continue this effort; i.e., Waltz Mill Site personnel will act as contractors to CBS rather than as licensee personnel. Thus, the requested amendment does not involve any changes in the conduct of licensed activities, which will continue in their current form without interruptions of any kind.

The proposed amendment also does not require any physical change to the WTR facility or changes to the Technical Specifications or procedures under the TR-2 License. The proposed change does not increase the probability of an accident previously evaluated because it does not affect any initiators in any of the previously evaluated accidents. The proposed change does not increase the consequence of any accident previously evaluated because it does not affect any of the items on which the consequence depend.

Therefore, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated

2) *Would not create the possibility of a new or different kind of accident from any accident previously evaluated.*

The proposed amendment does not modify the WTR facility configuration or licensed activities. Thus no new accident initiators are introduced.

Therefore, the proposed amendment does not create the possibility of a new or different accident from any accident previously evaluated.

3) *Would not involve a significant reduction in a margin of safety.*

This amendment is necessary because of the announced sale by CBS (with certain exceptions) of its nuclear and government services businesses to the Purchasers. CBS continues to be financially qualified to hold the WTR facility TR-2 License.

Furthermore, the CBS personnel responsible for decommissioning activities under the TR-2 License will continue to be technically qualified to carry out licensed activities. In connection with the name change, there will be no effective change in the personnel who are responsible to complete the TR-2 License decommissioning effort as described in the Decommissioning Plan, although there will be one new relationship established between CBS and the purchasers to continue this effort; i.e., Waltz Mill Site personnel will act as contractors to CBS rather than as licensee personnel. Thus, the requested amendment does not involve any changes in the conduct of licensed activities, which will continue in their current form without interruptions of any kind.

The proposed amendment does not alter any margin of safety because it does not involve any changes in the WTR facility or licensed activities under the TR-2 License which will continue in the current form without interruptions of any kind resulting from the name change.

Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

EXHIBIT B
CONTACT LIST FOR
WESTINGHOUSE TEST REACTOR FACILITY
LICENSE NUMBER TR-2, DOCKET 50-022

**CONTACT LIST
WESTINGHOUSE TEST REACTOR FACILITY
LICENSE NUMBER TR-2, DOCKET 50-022**

Principle: CBS Corporation
Gateway Center
11 Stanwix Street
Pittsburgh, PA 15222

Mailing address for correspondence regarding this matter until closing of the sale transaction described in the Application for amendment:

Westinghouse Electric Company
Energy Systems
P. O. Box 355
Pittsburgh, PA 15230

**Attention: Mr. A. Joseph Nardi, Supervisory Engineer
Energy Systems, Regulatory Affairs**

Telephone: (412) 372-1450

Mailing Address for all licensing correspondence on and after closing of the sale transaction described in the Application for amendment:

CBS Corporation
Gateway Center
11 Stanwix Street
Pittsburgh, PA 15222

**Attention: Mr. Richard K. Smith, Director
Environmental Remediation for CBS Corporation**

Telephone: (412) 642-3285

EXHIBIT C

**FINANCIAL ASSURANCE FOR DECOMMISSIONING
WESTINGHOUSE TEST REACTOR FACILITY
LICENSE NUMBER TR-2, DOCKET 50-022**

**FINANCIAL ASSURANCE FOR DECOMMISSIONING
WESTINGHOUSE TEST REACTOR FACILITY
LICENSE NUMBER TR-2, DOCKET 50-022**

The existing financial assurance mechanism for the WTR facility is incorporated into an overall financial assurance document that covers all of the CBS facilities that are licensed by the USNRC. The latest submittal of this document was made by letter dated February 20, 1998 as supplemented by letter dated July 10, 1998. This document was accepted by the USNRC by letter dated July 23, 1998.

Financial assurance for decommissioning is provided in the form of a Standby Trust and associated Standby Letters of Credit. Amendment #3 to the Standby Trust already incorporated a name change to "CBS Corporation". Additional appropriate amendments will be made to the existing Standby Trust and Standby Letters of Credit to reflect the changes that will be required in connection with the consummation of the announced sale.

Attached is a copy of the latest submittal documents and the associated acceptance letter from the USNRC.



Westinghouse Electric Company,
a division of CBS Corporation

Energy Systems

Box 355
Pittsburgh Pennsylvania 15230-0355

July 10, 1998

RA-98-039

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Mr. Louis Bykoski

Subject: Resubmitted Financial Assurance Mechanism for Decommissioning

Dear Mr. Bykoski:

The Westinghouse Electric Company, a division of CBS Corporation ("Westinghouse") hereby transmits the attached Amendment Number 3 to the Standby Trust Agreement. Westinghouse understands that a duplicate letter of credit has already been transmitted directly to you by the Toronto Dominion Bank. These two transmittals complete the information necessary to complete the actions that were intended to be taken by the Westinghouse letter dated February 20, 1998 which apparently has been lost in the mail. To complete the official records, attached is a copy of that original submittal.

In addition to your copy of the signed original, enclosed are two additional copies of Amendment No. 3 to the Standby Trust Agreement. Please have an appropriate agency official execute these documents, and return two of the copies to me for our files and the files of the Trustee bank.

If you have any questions concerning this transmittal, please contact me at the above address or by telephone at (412) 374-4652.

Very truly yours,

A handwritten signature in cursive script that reads "A. Joseph Nardi".

A. Joseph Nardi, Supervisory Engineer
Energy Systems, Regulatory Affairs

Attachments

**AMENDMENT NO. 3 TO
STANDBY TRUST AGREEMENT**

This Amendment No. 3 to Standby Trust Agreement ("Amendment No. 3") is entered into as of February 6, 1998 by and between CBS Corporation, a Pennsylvania corporation ("Grantor") and Dai-ichi Kangyo Trust Company of New York, incorporated in the State of New York ("Trustee")

RECITALS

WHEREAS, the original Standby Trust Agreement was entered into as of April 7, 1996 by and between Westinghouse Electric Corporation, a Pennsylvania corporation and Dai-ichi Kangyo Trust Company of New York, incorporated in the State of New York (the "Standby Trust Agreement"), and such Standby Trust Agreement was subsequently amended by the parties by Amendment No. 1 dated January 1997 and by Amendment No. 2 dated September 1997; and

WHEREAS, the Grantor, Westinghouse Electric Corporation, changed its corporate name to CBS Corporation effective as of December 1, 1997; and Grantor desires to reflect such name change in the Standby Trust Agreement, as previously amended and as further amended by this Amendment No. 3

NOW THEREFORE, for good and valuable consideration and intending to be legally bound, the parties further amend the Standby Trust Agreement as follows:

- 1) The Schedule A submitted with the Standby Trust Agreement and as last amended by Amendment No. 2 is replaced with the Schedule A attached to this Amendment No. 3.
- 2) The Schedule B submitted with the Standby Trust Agreement and as last amended by Amendment No. 2 is replaced with the Schedule B attached to this Amendment No. 3.
- 3) Except as set forth herein, the Standby Trust Agreement shall remain unchanged and in full force and effect.

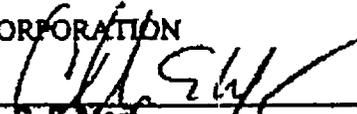
IN WITNESS WHEREOF, the parties have caused this Amendment No. 3 to the Standby Trust Agreement to be executed by their respective duly authorized officers as of the date first noted above.

ATTEST:

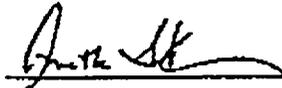


CBS CORPORATION

By:

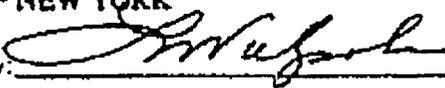

C.E. Mori
Vice President & Treasurer

ATTEST:



DAI-ICHI KANGYO TRUST COMPANY
OF NEW YORK

By:



AGREED TO AND ACCEPTED:

ATTEST

U.S. NUCLEAR REGULATORY COMMISSION

By _____

**SCHEDULE A TO STANDBY TRUST AGREEMENT
LISTING OF NRC LICENSES FOR WESTINGHOUSE ELECTRIC COMPANY
TRUST AGREEMENT SCHEDULE**

	NRC LICENSE NUMBER	FACILITY LOCATION AND ADDRESS	TYPE OF LICENSE	FINANCIAL ASSURANCE VALUE ¹ IN \$000
1	SNM-1107	Nuclear Fuel Fabrication Bluff Road, Columbia, SC 29250	SNM	50,780 ¹
2	37-5809-01	Pump Repair Facility-EMD Cheswick Ave., Cheswick, PA 15024	Combined Materials	7,000 ¹
3	37-5809-02	Industrial Radiography Facility Cheswick Avenue Cheswick, PA 15024	Byproduct	18 ¹
4	SNM-1120	Plutonium Fuels Development Lab ² Cheswick Ave. Cheswick, PA 15024	SNM	25
5	SNM-770	Waltz Mill Site P.O. Box 158 Madison, PA 15663-0158	Combined Materials	24,051 ¹
6	TR-2	Westinghouse Test Reactor ³ Waltz Mill Site P.O. Box 158 Madison, PA 15663-0158	Part 50	13,948 ¹
7	SNM-1460	Science and Technology Center (Hot Cells), T ulah Road Pittsburgh, PA 15235	Combined Materials	2,777 ¹
8	SNM-47	Science and Technology Center Beulah Road Pittsburgh, PA 15235	Combined Materials	1,928 ¹
9	37-00497-15	Forest Hills Site ³ P.O. Box 855 Pittsburgh, PA 15230-0855	Combined Materials	750
10	SMB-1527	Bloomfield, New Jersey ⁵ P. O. Box 127 1 Westinghouse Plaza Bloomfield, NJ 07003	Source Material	150
			Totals	101,427

1 Financial assurance values referenced in (10CFR 30.35, 40.36, 50.75 and 70.25).

2 Decommissioning completed.

3 This is possession only type license.

Decommissioning cost is based on an engineering study.

Under active decommissioning

01/98

SCHEDULE B TO STANDBY TRUST AGREEMENT**LISTING OF LETTERS OF CREDIT**

<u>Date Entered (1)</u>	<u>Issuing Institution of Irrevocable Letter of Credit*</u>	<u>Amount</u>
April 9, 1993	Chemical Bank Delaware P. O. Box 8840 Wilmington, DE 19899	\$4,380,000.00
April 9, 1993	ABN AMRO Bank N.V. Pittsburgh Branch One PPG Place Suite 2950 Pittsburgh, PA 15222-5400	\$18,845,000.00
January 24, 1995	The Toronto-Dominion Bank Three First National Plaza 70 West Madison Street Suite 1900 Chicago, IL 60602	\$38,102,000.00
April 7, 1996	The Toronto-Dominion Bank Three First National Plaza 70 West Madison Street Suite 1900 Chicago, IL 60602	\$21,041,000.00
September 15, 1997	Dai-Ichi Kangyo Bank 1 World Trade Center 49 th Floor New York, NY 10048	\$7,961,000.00
February 6, 1998	The Toronto-Dominion Bank Three First National Plaza 70 West Madison Street Suite 1900 Chicago, IL 60602	\$11,098,000.00
TOTAL		\$101,427,000.00

*Beneficiary of Letter of Credit is NRC

(1) Automatically renew after 12 months unless prior notice is given



Westinghouse Electric Company,
a division of CBS Corporation

Energy Systems

Box 355
Pittsburgh Pennsylvania 15230-0355

RA-98-017

February 20, 1998

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Director, Office of Nuclear Material Safety and Safeguards

Subject: Revised Financial Assurance Mechanism for Decommissioning

Dear Sir:

The Westinghouse Electric Company, a division of CBS Corporation ("Westinghouse") hereby submits a revision increasing the total dollar amount of decommissioning financial assurance funds for its NRC licensed facilities from the amount identified in Westinghouse's last updated submittal to the Commission dated September 28, 1997. The financial instrument being used by Westinghouse to reflect the increase in the Financial Assurance Mechanism is an increase to an existing letter of credit with an associated amendment to the existing standby trust agreement. This submittal is to maintain compliance with the Commission's decommissioning financial assurance regulations contained in "General Requirements for Decommissioning Nuclear Facilities," 10 CFR Parts 30, 40, 50, and 70.

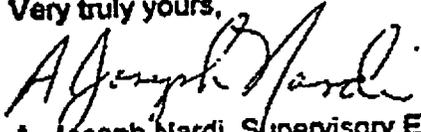
The increased decommissioning financial assurance amount, as reflected in the revised standby letter of credit, is the net effect associated with three (3) changes that are being made in the overall Westinghouse decommissioning financial assurance amount. These changes incorporate an additional 25% contingency factor in the cost estimates for License Number SNM-47, SNM-1107, and SNM-1460. This action is being taken in response to NRC reviews of the cost estimates submitted for Licenses SNM-1107 and SNM-1460 along with a requested License Amendment to incorporate License SNM-47 into License SNM-1460. The cumulative effect of these changes is to increase the overall amount of financial assurance required for Westinghouse by an amount of \$11,098,000.

This revised submittal includes the following attachments: Continuing Certification of Financial Assurance (Attachment 1); Amendment No. 3 to Standby Trust Agreement (Attachment 2); a new Standby Letter of Credit in the amount of \$11,098,000.00 (Attachment 3); and the Westinghouse Certification of Authorized Signature (Attachment 4). Included in Attachment 1 is a revised identification of the specific NRC licenses held by Westinghouse.

Also enclosed are two copies of Amendment No. 3 to the Standby Trust Agreement. Please have an appropriate agency official execute these documents, as well as the NRC's original of the Amendment No. 3 to the Standby Trust Agreement (Attachment 2) which forms a part of this submittal, and return the two copies to me for our files and the files of the Trustee bank.

If you have any questions concerning this transmittal, please contact me at the above address or by telephone at (412) 374-4652.

Very truly yours,



A. Joseph Nardi, Supervisory Engineer
Energy Systems, Regulatory Affairs

/sif

Attachments

ATTACHMENT 1
CONTINUING CERTIFICATION
OF FINANCIAL ASSURANCE

ATTACHMENT 1
CONTINUING CERTIFICATION OF FINANCIAL ASSURANCE

Principal: Westinghouse Electric Company, a division of CBS Corporation
Energy Center Site
4350 Northern Pike
Monroeville, PA 15146-2886

Mailing address for correspondence regarding this matter:

Westinghouse Electric Company
PO Box 355
Pittsburgh PA 15230

Attention: Mr. A. Joseph Nardi

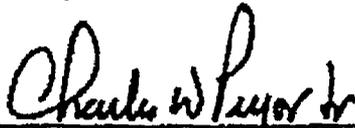
NRC license numbers, name and address of each facility:

See Attachment 1, p. 2
(List of Westinghouse licenses covered by this certification)

Issued to: US Nuclear Regulatory Commission
Washington DC 20555

This is to certify that Westinghouse Electric Company, a division of CBS Corporation, is licensed to possess a Production and Utilization Facility, and By-product, Special Nuclear and Source Materials licenses; and that financial assurance in the amounts prescribed by 10 CFR Parts 30, 40, 50, and 70 has been obtained for the purpose of decommissioning. The list of licenses in Attachment 1, page 2, identifies the specific licenses currently covered and the amounts of financial assurance provided for each. The total financial assurance amounts to \$101,427,000, an increase of \$11,098,000 over previous financial assurance amounts.

Sincerely,



Charles W. Pryor Jr., President
Westinghouse Electric Company,
a division of CBS Corporation

**ATTACHMENT 1
LISTING OF NRC LICENSES FOR WESTINGHOUSE ELECTRIC COMPANY
CONTINUING CERTIFICATION OF FINANCIAL ASSURANCE**

NRC LICENSE NUMBER	FACILITY LOCATION AND ADDRESS	TYPE OF LICENSE	FINANC ASSUR VALUE IN \$000
1	SNM-1107 Nuclear Fuel Fabrication Bluff Road, Columbia, SC 29250	SNM	50,780 ¹
2	37-5809-01 Pump Repair Facility-EMD Cheswick Ave., Cheswick, PA 15024	Combined Materials	7,000 ¹
3	37-5809-02 Industrial Radiography Facility Cheswick Avenue Cheswick, PA 15024	Byproduct	18 ¹
4	SNM-1120 Plutonium Fuels Development Lab ² Cheswick Ave. Cheswick, PA 15024	SNM	25
5	SNM-770 Waltz Mill Site P.O. Box 158 Madison, PA 15663-0158	Combined Materials	24,051 ¹
6	TR-2 Westinghouse Test Reactor ³ Waltz Mill Site P.O. Box 158 Madison, PA 15663-0158	Part 50	13,948 ¹
7	SNM-1460 Science and Technology Center (Old Callis), Benish Road Pittsburgh, PA 15215	Combined Materials	2,777 ¹
8	SNM-47 Science and Technology Center Benish Road Pittsburgh, PA 15215	Combined Materials	1,928 ⁴
9	37-00497-15 Forest Hills Site ⁵ P.O. Box 855 Pittsburgh, PA 15210-0855	Combined Materials	750
10	SNB-1577 Bloomsfield, New Jersey ⁵ P. O. Box 127 1 Westinghouse Plaza Bloomsfield, NJ 07007	Source Material	150
Totals			101,61

1 Financial assurance values referenced in (10CFR 30.35, 40.36, 50.75 and 70.25).
 2 Decommissioning completed.
 3 This is possession only type license.
 4 Decommissioning cost is based on an engineering study.
 5 Under active decommissioning.

ATTACHMENT 2
EXECUTED COPY OF AMENDMENT NO. 3
TO STANDBY TRUST AGREEMENT

**AMENDMENT NO. 3 TO
STANDBY TRUST AGREEMENT**

This Amendment No. 3 to Standby Trust Agreement ("Amendment No. 3") is entered into as of February 6, 1998 by and between CBS Corporation, a Pennsylvania corporation ("Grantor") and Dai-ichi Kangyo Trust Company of New York, incorporated in the State of New York ("Trustee")

RECITALS

WHEREAS, the original Standby Trust Agreement was entered into as of April 7, 1996 by and between Westinghouse Electric Corporation, a Pennsylvania corporation and Dai-ichi Kangyo Trust Company of New York, incorporated in the State of New York (the "Standby Trust Agreement"), and such Standby Trust Agreement was subsequently amended by the parties by Amendment No. 1 dated January 1997 and by Amendment No. 2 dated September 1997; and

WHEREAS, the Grantor, Westinghouse Electric Corporation, changed its corporate name to CBS Corporation effective as of December 1, 1997; and Grantor desires to reflect such name change in the Standby Trust Agreement, as previously amended and as further amended by this Amendment No. 3.

NOW THEREFORE, for good and valuable consideration and intending to be legally bound, the parties further amend the Standby Trust Agreement as follows:

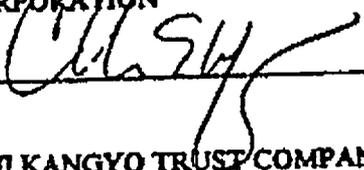
- 1) The Schedule A submitted with the Standby Trust Agreement and as last amended by Amendment No. 2 is replaced with the Schedule A attached to this Amendment No. 3.
- 2) The Schedule B submitted with the Standby Trust Agreement and as last amended by Amendment No. 2 is replaced with the Schedule B attached to this Amendment No. 3.
- 3) Except as set forth herein, the Standby Trust Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Amendment No. 3 to the Standby Trust Agreement to be executed by their respective duly authorized officers as of the date first noted above.

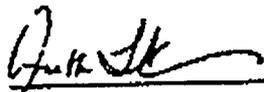
ATTEST:



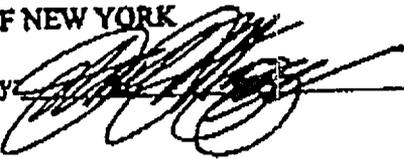
CBS CORPORATION

By: 

ATTEST:



DAI-ICHI KANGYO TRUST COMPANY
OF NEW YORK

By: 

AGREED TO AND ACCEPTED:

ATTEST

U.S. NUCLEAR REGULATORY COMMISSION

By: _____

**SCHEDULE A TO STANDBY TRUST AGREEMENT
LISTING OF NRC LICENSES FOR WESTINGHOUSE ELECTRIC COMPANY
TRUST AGREEMENT SCHEDULE**

	NRC LICENSE NUMBER	FACILITY LOCATION AND ADDRESS	TYPE OF LICENSE	FINANCIAL ASSURANCE VALUE IN \$000
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2	37-5809-01	Pump Repair Facility-EMD Cheswick Ave., Cheswick, PA 15024	Combined Materials	7,000 ¹
3	37-5809-02	Industrial Radiography Facility Cheswick Avenue Cheswick, PA 15024	Byproduct	18 ¹
4	SNM-1120	Plutonium Fuels Development Lab ² Cheswick Ave. Cheswick, PA 15024	SNM	25
5	SNM-770	Waltz Mill Site P.O. Box 158 Madison, PA 15663-0158	Combined Materials	24,051 ⁴
6	TR-2	Westinghouse Test Reactor ³ Waltz Mill Site P.O. Box 158 Madison, PA 15663-0158	Part 50	13,948 ⁴
7	SNM-1460	Science and Technology Center (Hot Cells), Beulah Road Pittsburgh, PA 15235	Combined Materials	2,777 ⁴
8	SNM-47	Science and Technology Center Beulah Road Pittsburgh, PA 15235	Combined Materials	1,928 ⁴
9	37-00497-15	Forest Hills Site ³ P.O. Box 855 Pittsburgh, PA 15230-0855	Combined Materials	750
10	SMB-1527	Bloomfield, New Jersey ⁵ P. O. Box 127 1 Westinghouse Plaza Bloomfield, NJ 07003	Source Material	150
Totals				101,427

- 1 Financial assurance values referenced in (10CFR 30.35, 40.36, 50.75 and 70.25).
- 2 Decommissioning completed.
- 3 This is possession only type license.
- 4 Decommissioning cost is based on an engineering study
- 5 Under active decommissioning.

01/98

SCHEDULE B TO STANDBY TRUST AGREEMENT**LISTING OF LETTERS OF CREDIT**

<u>Date Entered</u> (1)	<u>Issuing Institution of Irrevocable Letter of Credit*</u>	<u>Amount</u>
April 9, 1993	Chemical Bank Delaware P. O. Box 8840 Wilmington, DE 19899	\$4,380,000 00
April 9, 1993	ABN AMRO Bank N.V. Pittsburgh Branch One PPG Place Suite 2950 Pittsburgh, PA 15222-5400	\$18,845,000.00
January 24, 1995	The Toronto-Dominion Bank Three First National Plaza 70 West Madison Street Suite 1900 Chicago, IL 60602	\$38,102,000.00
April 7, 1996	The Toronto-Dominion Bank Three First National Plaza 70 West Madison Street Suite 1900 Chicago, IL 60602	\$21,041,000.00
September 15, 1997	Dai-Ichi Kangyo Bank 1 World Trade Center 49 th Floor New York, NY 10048	\$7,961,000.00
February 6, 1998	The Toronto-Dominion Bank Three First National Plaza 70 West Madison Street Suite 1900 Chicago, IL 60602	\$11,098,000.00
TOTAL		\$101,427,000 00

*Beneficiary of Letter of Credit is NRC

(1) Automatically renew after 12 months unless prior notice is given.

ATTACHMENT 3
STANDBY LETTER OF CREDIT

The Toronto-Dominion Bank
909 Fannin, Suite 1700
Houston, Texas 77010
(713) 653-8200

IRREVOCABLE STANDBY LETTER OF CREDIT NO. 1484

\$11,098,000.00

Expiry: February 6, 1999

**U.S. Nuclear Regulatory Commission ("NRC")
Decommissioning and Regulatory Branch
Washington, D.C. 20555
Attention: Group Chief**

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. 1484 in your favor, at the request and for the account of Westinghouse Electric Company, 11 Starwix Street, Pittsburgh, PA 15222, up to the aggregate amount of U.S. Dollars Eleven Million Ninety Eight Thousand and 00/100 available upon presentation of:

- 1) your sight draft, bearing reference to the Letter of Credit No. 1484, and
- 2) your signed statement reading as follows: I certify that the amount of the draft is payable pursuant to regulations issued under the authority of the U.S. Nuclear Regulatory Commission.

This Letter of Credit is issued in accordance with regulations issued under the authority of the NRC, an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended and the Energy Reorganization Act of 1974. The NRC has promulgated regulations in Title 10, Chapter 1 of the Code of Federal Regulations, Parts 30, 40, 50 or 70, (the "Applicable Regulations") which require that a holder of or an applicant for, a license issued under the Applicable Regulations, provide assurance that funds will be available when needed for decommissioning.

This Letter of Credit is effective as of February 6, 1998 and shall expire on February 6, 1999, but such expiration date shall be automatically extended for a period of at least 1 year on February 6, 1999 and on each successive expiration date, unless, at least 90 days before the current expiration date, we notify both you and Westinghouse Electric Company, by certified mail, as shown on the signed return receipts.

If Westinghouse Electric Company is unable to secure alternative financial assurance to replace this Letter of Credit within 30 days of notification of cancellation, the NRC may draw upon the full value of this Letter of Credit prior to cancellation.

The Toronto-Dominion Bank shall give immediate notice to Westinghouse Electric Company and the NRC of any notice received or action filed alleging (1) the insolvency or bankruptcy of The Toronto-Dominion Bank, or (2) any violations of regulatory requirements that could result in suspension or revocation of The Toronto-Dominion Bank's charter.

The Toronto-Dominion Bank also shall give immediate notice if for any reason, it becomes unable to fulfill its obligations under the Letter of Credit No. 1484.

Whenever this Letter of Credit is drawn on under and in compliance with the terms of this Letter of Credit, The Toronto-Dominion Bank shall duly honor such draft upon its presentation to us within 30 days, and we shall deposit the amount of the draft directly into the Standby Trust Fund of Westinghouse Electric Company in accordance with the NRC's instructions.

Each draft must bear on its face the clause: "Drawn under Letter of Credit No. 1484 dated February 6, 1998 and the total of this draft and all other drafts previously drawn under this Letter of Credit does not exceed \$11,098,000.00."

This Letter of Credit is subject to the Uniform Customs and Practice for Documentary Credits (1993 Revision, International Chamber of Commerce, Paris, France, Publication No. 500).

THE TORONTO-DOMINION BANK

By: 
Name: Nova Nesbitt #360
Title: Manager, Credit Administration

By: 
Name: Jorge Garcia #391
Title: Manager, Credit Administration

ATTACHMENT 4
WESTINGHOUSE CERTIFICATION OF
AUTHORIZED SIGNATURE

EXTRACT FROM MINUTES OF MEETING OF THE
BOARD OF DIRECTORS OF
CBS CORPORATION
(formerly Westinghouse Electric Corporation)
HELD ON APRIL 30, 1997

RESOLVED, that, effective May 1, 1997, the Chairman, the Vice Chairman, the Chief Executive Officer, the President, each Vice President, the Treasurer, and the Secretary of the Company are, and each of them individually is, hereby authorized, in the name and on behalf of the Company, in the ordinary conduct of the Company's business, (A) to sign, execute, deliver and bind the Company with respect to: (i) all contracts, agreements, instruments, deeds, leases, conveyances, transfers of real or personal property, grants of public utility easements, powers of attorney (with full and general or limited authority with power of substitution), releases, waivers, assignments claims documents and other documents of a contractual nature, (ii) all bonds, obligations, and letter of credit applications or reimbursement agreements, (iii) all applications for regulatory permits and licenses and other governmental forms, including but not limited to tax returns, tax elections, and any documents required in connection with patent, trademark and copyright matters, (iv) any other instrument similar to the preceding, and (v) with respect to the ordinary course of business of majority-owned or wholly-owned subsidiaries of the Company, guaranty or similar arrangements or letter of credit applications or reimbursement agreements, and (B) to vote, in person or by proxy, any interest that the Company may have in any corporation, partnership, joint venture or other entity or association;

RESOLVED, that with respect to any exercise by a specified officer or officers of the Company of the signature and/or voting authority granted in the preceding resolution, the Secretary (if he or she shall not sign the document) is hereby authorized to attest to any such signature and/or to affix the corporate seal to any such document or instrument;

RESOLVED, that each of the officers specified in the preceding two resolutions is also authorized to delegate his or her respective signature or voting authority granted in said resolutions by a writing (x) specifying the scope of the authority being delegated by the writing, (y) identifying the delegate either by name or as the incumbent of a position, and (z) advising the delegate that he or she shall have no authority to redelegate the signature authority being delegated (provided that none of the above-specified officers shall have any authority to bind the Company during such period that his or her then current assignment may require his or her residence in any country other than the United States of America, its territories and possessions), and that a copy of every delegation or change in a previous delegation made pursuant to this resolution shall be submitted to the General Counsel of the Company promptly after the delegation or change has occurred;

RESOLVED, that with respect to any exercise by a specified officer or officers of the Company of the signature and/or voting authority granted in the first of the preceding three resolutions, any Assistant Secretary is hereby authorized to attest to any such signature and/or to affix the corporate seal to any such document or instrument;

RESOLVED, that, in addition to the authorization set forth in A(11) of the first of the preceding four resolutions, any assistant secretary or assistant treasurer, and each of them individually, is hereby authorized, in the name and on behalf of the Company, to sign, execute, deliver and bind the Company with respect to any tax return or tax election;

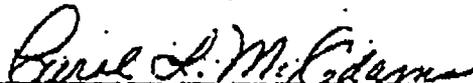
RESOLVED, that none of the authority granted in the above resolutions shall constitute a delegation of, or change in, the limits of authority otherwise imposed on the specified officers or their delegates or on the specified assistant officers or in any manner be permitted to operate in derogation of such limits of authority; and

RESOLVED, that the signature, voting and other authority granted by the above resolutions shall be in addition to, and not by way of substitution or replacement for or revocation of, any prior grant or grants of signature, voting or other authority by the Board of Directors.

I, CAROL L. MCADAMS, Assistant Secretary of CBS Corporation, DO HEREBY CERTIFY that the foregoing is a true and correct copy of resolutions adopted at a meeting of the Board of Directors of said Company held on April 30, 1997, at which meeting a quorum was present and which resolutions are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company.

Dated: January 16, 1998.


Assistant Secretary

2

Richard K. Smith
Director - Environmental Remediation

Telephone: 412-642-3285
Facsimile: 412-642-3957
E-mail: Richard.Smith@viacom.com

VIACOM.

March 25, 2002

Document Control Center
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Viacom Inc.
Westinghouse Test Reactor (WTR)
License Number TR-2, Docket No. 50-22

This letter confirms my telephone conversation with Mr Alexander Adams and Mr. Stephen Holmes of the Nuclear Regulatory Commission (NRC) on February 28, 2002. Mr. Adams and Mr. Holmes inquired regarding the status of the decommissioning work and the current license operations at the above referenced facility. I advised Mr. Adams and Mr. Holmes as follows:

- The NRC approved decommissioning plan calls for (1) removal and disposal of the reactor vessel and its internal contents and (2) decontamination of other structures and equipment and transfer of the remaining residual radioactivity and facilities to the SNM-770 License.
- The removal of the reactor vessel and its internal contents was successfully completed in May 2000 and it was shipped off-site for processing and disposal at Alaron Corporation. Alaron shipped the last remaining material for disposal in February 2002 and now all the material has been disposed at Envirocare of Utah.
- Decontamination work on the remaining facilities was completed in July 2001, final surveys were conducted and demobilization of the tents and equipment was performed in September 2001.
- Transfer of the remaining facilities to the SNM-770 License has not been completed because of a dispute between Viacom and Westinghouse Electric Company, the SNM-770 Licensee. The parties are currently attempting to negotiate a settlement of various issues associated with the sale of the business. If negotiations do not resolve the issues, the parties will then engage in mediation and arbitration.
- The facility is in compliance with TR-2 License requirements and the Technical Specifications. There are currently no Restricted Activities being conducted.

We will keep Mr Adams and Mr. Holmes informed about the status of the Viacom/Westinghouse dispute. If it becomes evident that Viacom will not be able to effectuate the transfer of the TR-2 license and thereby complete the TR-2 decommissioning plan in a reasonable time, Viacom will meet with the NRC to discuss other arrangements.

If there are any questions regarding this matter, please contact me.

Sincerely,



Richard K. Smith
Director - Environmental Remediation

A020

Cc: Mr. Alexander Adams, Jr., Senior Project Manager
Events Assessment, Generic Communications and Non-Power Reactor Branch
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
One White Flint North, Mail Stop O12-D1
11555 Rockville Pike
Rockville, MD 20852-2738

Mr. Stephen Holmes
Events Assessment, Generic Communications and Non-Power Reactor Branch
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
One White Flint North, Mail Stop O12-D1
11555 Rockville Pike
Rockville, MD 20852-2738

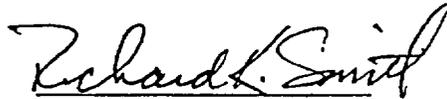
Mr. James Yusko, Regional Manager Radiation Protection
Pennsylvania Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222

Mr. Wayne Vogel, Radiation Safety Officer
Westinghouse Electric Company
P.O. Box 158
Madison, PA 15663

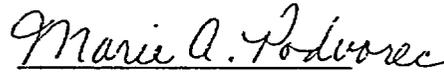
Copies transmitted: 3 notarized and 5 conformed

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF ALLEGHENY)

Before me, the undersigned notary public, this day personally appeared Richard K. Smith, Viacom Inc., 11 Stanwix Street, Pittsburgh, PA 15222, to me known, who being duly sworn according to law, deposes and says: that the statements sworn to in this letter are correct and accurate to the best of his knowledge.


Signature of affiant

Subscribed and sworn to before me
this 25th day of March, 2002


Notary Public

Notarial Seal
Marie A. Podvorec, Notary Public
Pittsburgh, Allegheny County
My Commission Expires Dec. 8, 2003
Member, Pennsylvania Association of Notaries

3

**Westinghouse Test Reactor Decommissioning
Radiation Safety Committee Meeting
Friday, October 15, 1999
Waltz Mill**

Meeting Number: 99-007

Members, Alternates, and Advisors Present

B. M. Bowman	B. G. Holmes	I. R. Seybold
R. L. Bussard	A. J. Nardi	W. D. Vogel
W. C. Burns		

Members Absent

R.G. Cline	P. O'Hara
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Guests / Presenters

W. L. Lavallee	E. Piplica	D. E. Reese
B. G. Hritz	R. B. Sisk	R. Banning

Bo Bowman called the meeting to order at 9:10 a.m.

Additions or Deletions to Agenda

Wayne Vogel gave an overview of the meeting's agenda.

Review and Approval of previous meeting minutes

Wayne Vogel gave a summary of the previous meeting's minutes, and the status of action items was obtained:

WP-682 - Wayne Vogel to work with project on mutually acceptable method of labeling sealed penetrations - Status - no action yet - nothing to report.

Roy Banning - break out DAC Hour summaries by project Work Packages for next presentation to the Committee - Status - will be reviewed periodically.

Joe Nardi is to prepare a format to use for providing TR-2 Decommissioning Project periodic updates to the NRC, PADEP, and DOT. Status - Complete - First report was issued on 10/7/99.

WP- 621 - Decommissioning Team to retitle/redefine scope such that it is clear that the portions of the bioshield addressed in the work package are just the portions necessary for removal of the reactor tank. Status - Complete - changes incorporated.

WTR RSC 99-010

WP-621 - Reese to issue report regarding on-site movement of concrete block. **Action: Complete - report issued to site.**

WP-621 - Decommissioning Team to clarify the sealing of penetrations in the remaining portion of the bioshield. **Action: Still open - will be addressed in the work package.**

WP-621 - Decommissioning Team to consider the use of additional temporary shielding. **Status - Complete - additional shielding will be provided around the reactor tank as the bioshield is removed.**

WP-621 - A Safety Committee Review for this work package is required and is planned. **Status - Complete - meeting was convened and recommendations made.**

The minutes were accepted as written.

Old Business: None

New Business

Revision 2 to the WTR RSC Charter

Vogel noted that a revision was made to record changes in the committee membership changing the chairman alternate from Gerald Williams to Patrick O'Hara.

50.59 Safety Evaluation

Rob Sisk presented the 50.59 Safety Evaluation. He began with a review of the **Safety Evaluation Process**, where the TR-2 Technical Specification 6.2.3 includes the following statements

"The Radiation Safety Committee shall be responsible for review of the following:

- A. Proposed activities that could affect personnel or facility safety or result in an uncontrolled release of radioactivity in excess of 10 CFR 20 Limits, to be conducted without NRC approval, and reviewed and approved pursuant to 10 CFR 50.59 to verify the proposed activity does not constitute a change in the Technical Specifications or an unreviewed safety question.
- B. Proposed changes to the facility or to procedures required by Specification 6.3, that could affect radiation safety and that are to be completed prior NRC approval reviewed and approved pursuant to 10 CFR 50.59 to verify the activity does not constitute a change to the Technical Specification or an unreviewed safety question

Section 1.4 (pg. 1-4) of the NRC approved TR-2 Decommissioning Plan states:

"The provisions of 10 CFR 50.59(e) shall apply to the NRC approved Decommissioning Plan and the criteria to be used in evaluating changes to the plan will be included in project procedures"

10 CFR 50.59(e) allows the licensee to:

- (i) make changes in the facility as described in the Decommissioning Plan
- (ii) make changes to procedures as described in the Decommissioning Plan

WTR RSC 99-010

without prior NRC approval, provided the proposed change does not involve a change to the Technical Specifications or an unreviewed safety question.

Definition of an "Unreviewed Safety Question"

"A proposed change, test, or experiment shall be deemed to involve an unreviewed safety question (i) if the probability of occurrence or the consequence of an accident or malfunction of equipment important to decommissioning safety previously evaluated in the DP may be increased; or (ii) if a possibility for an accident or malfunction of a different type than any evaluated previously in the DP may be created; or (iii) if the margin of safety as defined is the basis for any technical specification is reduced"

Procedure WM-RT-6.2 of the WMDT Project Control Manual provides the procedure for conducting licensing evaluation and a safety evaluation in accordance with the DP.

Proposed facility changes and procedures changes were reviewed and evaluated to assess their consistency with the existing SNM-770 and TR-2 licensing bases.

3 step Process:

1. Complete Licensing Screening Check List
2. Complete Decommissioning Licensing Evaluation
3. RSC to Review

Proposed Change to Decommissioning Plan

The Waltz Mill Decommissioning Plan for the Westinghouse Test Reactor (WTR) approved by the NRC in Amendment 8 to the TR-2 License describes two options for removing the WTR reactor tank:

- Option 1. A one-piece reactor tank removal through an opening in the containment dome
- Option 2. A multi-piece reactor tank removal through the Truck Lock

Based on an engineering evaluation of the removal methods described in the DP and on additional data collected in during the decommissioning process; a third option which was identified and has been proposed. Option 3 describes a one-piece removal of the reactor vessel through the Truck Lock.

Summary of the proposed changes made by Option 3:

1. All bio-shield concrete will be removed from the tank
2. The reactor tank internals will be inspected and restrained as necessary without the use of grout
3. The reactor tank will be down-ended and moved out of containment through the truck Lock
4. The reactor tank removal operation will take place with water in the canal

Several sketches were presented showing the process for option 3.

Major advantages of Option 3 over Option 1:

1. Tank is down-ended not lifted 100 feet in the air
2. Containment integrity is maintained; does not require a hole in the dome
3. The reactor tank constitutes a smaller package; all bio-shield is removed

- from the tank; total lift less than 110 tons
- 4. Removes concern for concrete integrity on the tank
- 5. No internal grout required: less radioactive waste for disposal
- 6. ALARA
- 7. Cost effective

Major advantages of Option 3 over Option 2:

- 1. Requires less waste processing in containment; fewer cuts of the tank
- 2. ALARA
- 3. Cost effective

Griff Holmes questioned why option 3 hadn't been considered originally. The level of activity in the concrete was not initially known, and assumed it was too activated to remove separately. It was then discovered through core borings to be low enough to cut away, leaving the diameter of the vessel narrow enough to down-end and remove through the Truck Lock.

Vogel inquired as to the process used to develop option 3; the team reviewed the original plan with MK Engineering and continued re-evaluating the plan and considering improved methodologies through monthly meetings.

Vogel requested that an ALARA analysis of option 3 be conducted and compared to the current approaches for removing the vessel in the DP. In Table 2-1 of the current DP the estimated exposure for removing the reactor vessel, internals and bio-shield is approximately 26.14 person-rem. **Is Option 3 ALARA? How would Option 3 impact the current estimate? Action: Roy Banning to provide data.**

Reese noted that the selected vendor to perform the reactor tank movement, Hake, has experience in this operation, including lifts at the Saxton plant.

50.59 Safety Evaluation

Rob Sisk presented a summary of the Decommissioning Licensing Evaluation Screening Checklist:

- 1. Does the activity involve a change in the decommissioning activities or methods described in the Decommissioning Plan? YES
- 2. Does the activity involve an activity that could result in decommissioning operations not described in the Decommissioning Plan which could have an adverse effect on radiological safety? YES
- 3. Does the activity involve a change to an accident analysis assumption described in Section 3.4 of the Decommissioning Plan? NO
- 4. Does the activity involve a change to the TR-2 or SNM-770 License, including the NRC approved TR-2 Technical Specifications? NO

Rob continued the safety evaluation with the following 3 point analysis:

- 1. Would the proposed activity increase the probability of occurrence of an accident evaluated previously in the Decommissioning Plan?

Rob presented the following response:

- The proposed change to the decommissioning plan would not increase the probability of an accident previously evaluated.
- Accidents previously evaluated include:
 - Dropping of contaminated Concrete Block/Rubble
 - Fire/Explosion
 - Canal Sediment Criticality and Handling
 - Rupture of a HEPA Vacuum Bag
- The proposed option reduces both the total weight and the total activity which would be lifted in containment at one time. In addition, the height from which the tank and biological shield blocks (bio-shield) would be suspended has been reduced. Option 3 also eliminates the need to install a large (10-12 foot) hole in containment significantly reducing the probability of contamination from containment being released into the environment.

Vogel observed that a potential breach of the canal had not been previously evaluated as a potential accident, and questioned whether this constituted a new accident scenario. Seybold asked how much the vessel would have to weigh to damage the canal.

Action: Gene Piplica/Clete Yoder to determine the weight of the reactor vessel, when dropped from its maximum height, required to cause the transfer canal to fail. Document the margin of safety.

2. Would the proposed activity increase the consequences of an accident evaluated previously in the Decommissioning Plan?
 - The proposed activity would **not** increase the consequences of an accident previously evaluated.
 - By eliminating the need to cut a hole in the containment dome, Option 3 would more effectively maintain the integrity of the containment during the decommissioning. By removing the tank in one-piece the potential for spreading loose surface and airborne contamination through the cutting, processing and packaging of the tank while it is in containment is also reduced.
3. Would the proposed activity create the possibility of an accident of a different type than previously evaluated in the Decommissioning Plan?

Option 3 introduces five new issues to consider:

- 3a. The tank will be moved, packaged and shipped without the use of grout. Is it necessary to grout the reactor tank interior to stabilize the core region and prevent the shifting dose levels due to the shifting of activated parts in the tank?

MK analysis WMDT-99-051

MK performed a calculation to verify the the reactor internals hold down lugs would adequately constrain the internals during the removal and transportation process

Conclusion: The internal anchor lugs were determined to be sufficient for restraining the internals during shipping

Westinghouse Evaluation WMDT-INT-99-057

WTR RSC 99-010

Westinghouse performed a test and an evaluation of the strippable coating (TLC Free Coat) to determine if it would provide adequate adhesion to keep loose items (plugs) on top of the internal in place

Conclusion: TLC Free, when used as a coating on the top of the core structure in the WTR, will provide adequate adhesion to keep the plugs in place during normal shipping loads.

Nardi asked about the size of the loose components. Piplica noted that the plugs were up to 3/4" in diameter, approximately 3" long, and weighed up to 12 lbs. He described in more detail the process used in performing the adhesion test, by creating a mockup, spraying and curing the adhesive, then measuring the pull force required to move the components. Piplica added that the plan was to spray in 12/99, and let cure until March, which should provide more than enough time for adequate curing. Seybold inquired if there were any special ventilation requirements, and if there was any potential for a flammable situation to arise.

Action: Bill Smoody - Evaluate the Ice-solve strippable coating for its flammability, volatility and susceptibility to off gassing toxic fumes during application or when it is exposed to heat from a welder. Also document the requirements and environmental conditions required to assure that the coating is properly cured when applied to the vessel internals.

GTSD analysis WMDT-99-060

GTSD performed shielding calculations on the reactor tank and its internal to:

1. Determine the shielding required to meet normal shipping requirements
2. Determine the shipping dose rate if high dose rate plugs fall out of the core plate onto the vessel wall during shipping
3. Determine the additional shielding required to meet shipping requirements if high dose plugs fall out of the core plate onto the vessel wall during shipping
4. Determine if the additional 1 inch shielding below the core centerline can be reduced from 5'-10" in length to 3' and still be effective

Conclusion: Based on conservative calculations by GTSD; a 1-inch steel shield is required around the thermal shield region of the reactor tank to meet normal shipping requirements. Based on worst case analysis 4 inches of steel could be required if plugs come out and collect at the bottom of the tank.

GTSD will collect plug samples from the vessel to develop and reanalyze the shielding require to assure transportation limits are not exceeded.

Nardi inquired as to the radiation impact on the integrity of the hold down bolts, and also the extent to which the restraining rods would hold while the tank is being down-ended.

Action: G. Piplica - Document in the safety evaluation how the upper internals are restrained during the movement of the reactor tank.

Action: G Piplica - Document in the safety evaluation the impact of neutron embrittlement on the core internal hold down bolts.

- 3b. The tank will be down-ended in containment so that it can be taken out via the Truck Lock. Could the tank integrity be breached as a result of the down-ending process?

MK analysis WMDT-99-052

MK performed a finite element analysis model to determine the effects on the reactor tank from down-ending, impact loads and transportation loads

Conclusion: Based on the all results were within acceptable limits

Nardi questioned how to monitor what would be happening inside the vessel when down-ending, and suggested use of a microphone. Piplica noted that there would most likely be too much extraneous noise being generated by such devices as the jacking towers and wheels to allow pick up of internal noise. A better measurement would be to note any changes in locations of dose.

Seybold inquired if down-ending was in the original plan; it was, but it was to take place outside of containment, with grout utilized to fix the internals in place. In response to a question from Vogel, Sisk stated that if components did come loose during the down-ending, the tank would still be in a controlled environment, and the first step would be to take dose surveys. Holmes inquired as to the nature of the high dose items; they would most likely be Cobalt 60 or Cesium-137.

- 3c. Can the containment floor, truck lock floor, and transfer canal absorb the loads resulting from the shifting and moving of the reactor in one piece from its current position through the truck lock?

MK analysis WMDT-99-058

MK performed an analysis to determine the adequacy of the floor, transfer canal and Truck Lock platform to support normal and abnormal loads from the effects of moving the reactor tank from containment.

Conclusion: A temporary shoring system is recommended for the Truck Lock platform. With the proposed shoring in place all other results were within acceptable limits

MK analysis WMDT-99-058

MK also analyzed the impact of a dropped concrete block on the floor, transfer canal and Truck Lock platform.

Conclusion: To ensure structural integrity of the existing canal structure a 24-inch minimum sand cushion should be installed in 3 places. With the proposed cushions in place all results were within acceptable limits.

- 3d. The transfer canal could have water in it when the tank is removed. Does this increase the possibility of an accidental release to the environment?

MK analysis WMDT-99-058

MK evaluated the transfer canal to determine if the normal and abnormal loads from the effects of moving the reactor tank from containment negatively impact the transfer canal. The following conditions were considered:

<u>Normal Events</u>	<u>Abnormal Events</u>
- Loads on the truck lock platform	- Block Impact loads
- Unloading lower support structure	- Concrete Block Drop
- Reloading the lower support structure	- Vertical Drop of tank
	- Loss of Control of tank

WTR RSC 99-010

Conclusion: Based on the analyses of the postulated events, the transfer canal, integrity would not be jeopardized by the associated activities. It should be noted that as an additional precaution as much water as schedule allows will be removed prior to moving the tank.

Vogel expressed concern that having water still in the transfer canal would seem to increase the probability of an accident occurrence and questioned whether it was advisable to wait until the transfer canal was entirely drained before the down-ending operation. Reese noted that work on the transfer canal is scheduled to begin 12/99, and the water should be quite low by March. Bussard suggested that it might be preferable to have water in the canal, as the canal walls would be less likely to fail if there was an impact.

Nardi added that previous accident analysis did not consider the possibility of contamination from a water effluence, and questioned whether this would be introducing a new accident possibility.

Action: W Lavallee/D Reese - Document the reason for not removing the water from the Transfer Canal prior to the reactor tank being moved.

Action: Roy Banning - Evaluate the radiological impact of releasing transfer canal water into the ground around the canal.

Vogel questioned whether the TLC coating would hold if the tank was dropped, and also if there would be an external impact of the site boundary radiological radiation levels. Sisk replied that if the tank was dropped, the Site Emergency Plan would be activated with associated procedures followed.

3e. Would the inadvertent bumping of the reactor tank by a 20-ton concrete block jeopardize the integrity of the tank or result in dislodging the tank?

MK analysis WMDT-99-058

MK also analyzed the impact of a 15-ton concrete block inadvertently striking the reactor tank to determine whether such an event would either rupture the tank or dislodge the tank from its supports.

- Note: blocks are anticipated to be approximately 6.5 tons

Conclusion: The anchor bolts stress were acceptable. The block velocity is limited to 4 mph. With a limitation on crane speed the stresses in the tank wall are within acceptable limits to vessel integrity.

4. Does the proposed activity reduce the margin of safety as defined in the basis for any Technical Specifications?

• Option 3 does not reduce the margin of safety as defined in the basis for the technical specification.

• Packaging and shipping the reactor tank in one piece was covered by Option 1 and removal of the tank through the Truck Lock is covered in Option 2. Since the technical specifications were written to support both scenarios Option 3, can be performed within the existing technical specifications without reducing any margins of safety.

Vogel questioned whether making more lifts of bioshield blocks would increase the probability of an accident. **Action: R. Sisk - Evaluate the impact of making several 6.5-ton lifts versus a single 50-ton lift. Does this increase the probability of an accident?**

WTR RSC 99-010

Nardi referred back to the definition of an "Unreviewed Safety Question - A proposed change, test, or experiment shall be deemed to involve an unreviewed safety question" where item *ii* notes "if a possibility for an accident or malfunction of a different type than any evaluated previously in the DP may be created", and stated that the committee has to conclude that a new accident scenario has not been introduced in order to advise the DT to proceed. He also referred to a recent conversation with Ted Michaels of the NRC where he advised that any new option should not increase total dose.

The committee concluded that the proposed change can not be considered for implementation under the provisions of 10 CFR 50.69 until the action items noted above are presented and further reviewed.

The meeting was adjourned 11:55 a.m.


Wayne D. Vogel, RSO
Secretary WTR RSC

4



Westinghouse Electric Company,
a division of CBS Corporation

Energy Systems

Box 355
Pittsburgh Pennsylvania 15230-0355

RA-98-037

June 19, 1998

U. S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Attention: Marie Miller, Chief
Decommissioning and Laboratory Branch
Division of Nuclear Materials Safety

Subject: Submittal of Additional Information to Support Application for Approval of
Remediation Plan

Reference: USNRC Letter dated June 10, 1998 from Marie Miller to Joseph Nardi,
Westinghouse Electric Company (Docket No. 070-00698, Control No.
124413)

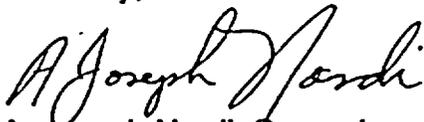
Dear Ms. Miller:

The Westinghouse Electric Company, a division of CBS Corporation, hereby submits this additional information in response to your letter referenced above. Your letter requested a separate response to the first comment identified as Item 1. Attached to this letter is the additional information necessary to respond to your request for clarification of the criteria for the remediation of the retired facilities.

Westinghouse agrees with the NRC's assessment that the remediation of the retired facilities can be performed safely under the terms and conditions of license number SNM-770. The technical and administrative controls that have been put into place and the work that has been completed in the past have demonstrated that such work can be performed safely under the license. In addition to the retired facilities that are identified in the remediation plan, Westinghouse understands that the approval to conduct remediation activities under the license would also apply to other facilities on the site. These other facilities were not included in the Remediation Plan since, based on the characterization data, they met the final release criteria defined in that Plan.

Westinghouse is prepared to proceed with the remediation of the retired facilities upon notification that the NRC concurs with the acceptability of the criteria presented in the attachment. Your timely review and response to this letter would be appreciated. As discussed in the meetings between Westinghouse and the NRC held on May 18, 1998 and June 11, 1998, Westinghouse expects to complete, by the end of August, the remaining work packages that are currently authorized. If you have any questions concerning this submittal, please contact me at the above address or by telephone at (412) 374-4652.

Sincerely,



A. Joseph Nardi, Supervisory Engineer
Energy Systems, Regulatory Affairs

Attachment

cc: Wayne Vogel, Radiation Safety Officer
Westinghouse Electric Company

James Yusko, Radiation Health Physicist
PA Department of Environmental Protection

ATTACHMENT

Response to comment contained in NRC letter dated June 10, 1998
from Marie Miller to Joseph Nardi.

NRC Comment:

1. *Section 1.2 of the Remediation Plan describes the criteria for remediation of the retired areas as no longer requiring radiation protection controls for high radiation areas or airborne radioactive materials areas. We do not believe that this criteria is sufficient to show that a reasonable effort has been made to reduce residual contamination to as low as reasonably achievable levels. As discussed in our May 18, 1998 meeting, provide specific criteria for these retired areas based upon proposed future use of areas.*

Westinghouse Response:

Since the time of submittal of the Remediation Plan, the SNM-770 License was renewed which incorporates the release criteria contained in the NRC "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 May 1997. While these criteria, as addressed in the license application, principally apply to the unrestricted release of equipment, these criteria can be extended to the remediation of inactive (retired) facilities within the Waltz Mill Site Controlled Area. The criteria within this guideline will be used for establishing the acceptable levels of residual activity for remediated inactive (retired) facilities as follows:

- a) Criteria Applicable to Inactive Restricted Areas Which May Be Used For Future Licensed Activities Within Buildings That Are Used for Other Principal Licensed Activities

Surfaces or equipment within buildings that are being remediated from inactive (retired) areas to restricted areas which may be used for future use under the license will be decontaminated to levels which do not exceed four times the unrestricted release criteria for total contamination (fixed plus removable) specified in Section 10.6.1(f) of the license application. The criteria for removable contamination will be consistent with the limits specified in Section 10.6.1(f) of the license application.

A reasonable effort shall be made to remove inactive (no potential for future use) contaminated pipes, drain lines, or ductwork within these areas. If complete removal is impractical or a future licensed use is feasible, the interior surfaces will be cleaned to the extent reasonably achievable. The final criteria will be established on a case by case basis, justified using an ALARA approach, and approved by the Radiation Safety Officer and, in certain cases, the Radiation

Safety Committee. Additional engineered controls such as encapsulation and/or isolation may be used to minimized potential exposure.

A list of these areas and the final radiological status following remediation will be retained pursuant to 10 CFR 30.35(g)(3).

These areas will continue to be maintained as restricted areas under the license until released for unrestricted use in accordance with the criteria specified in b) below.

b) Criteria Applicable to Inactive Areas Which Will Not Be Used for Future Licensed Activities

Areas within buildings and separate buildings that are being converted over from inactive (retired) areas to unrestricted areas within the controlled area of the Waltz Mill Site will be decontaminated to levels which do not exceed the unrestricted release criteria specified in Section 10.6.1(f) of the license application.

A list of these areas and the final radiological status following remediation will be retained pursuant to 10 CFR 30.35(g)(3).

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Westinghouse
Electric Company

Box 355
Pittsburgh Pennsylvania 15230-0355

RA-99-044
August 9, 1999

U. S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Attention: Licensing Assistance Team

Dear Sirs:

Subject: Submittal of Additional Information to Support Remediation Plan for
License Number SNM-770 (Docket No. 70-648) - Mail Control #124413

References:

1. Westinghouse letter dated November 27, 1996 from A. Joseph Nardi to USNRC
2. Westinghouse Letter dated February 16, 1999, from A. Joseph Nardi to USNRC
3. USNRC Letter dated May 26, 1999, from Dr. Ronald D. Bellamy to Westinghouse

Westinghouse Electric Company LLC¹ (Westinghouse) hereby submits this additional information to support the Remediation Plan (Reference 1) for License Number SNM-770 for the Waltz Mill Site located near Madison, PA. The objective of the referenced plan has been the remediation of the retired facilities and the soil areas to the extent considered prudent for the continued licensed operations of the site and to remove the Waltz Mill Facility from the SDMP list. As described in previous correspondence (Reference 2), Westinghouse has revised the approach and criteria to be used as the basis for the soil remediation portion of the Remediation Plan. The attached information revises the soil dose assessment methodology of the "Waltz Mill Facility SNM-770 Remediation Plan" (Reference 1).

For administrative reasons, Westinghouse is not requesting the replacement of the original Remediation Plan in its entirety and therefore requests that the NRC reference

¹ "Westinghouse Electric Corporation changed its name to CBS Corporation on December 1, 1997. CBS has sold the assets (with certain exceptions) of its nuclear and government operations businesses to a consortium consisting of Morrison Knudsen Corporation and BNFL USA Group, Inc., effective March 22, 1999. By letters dated September 28, 1998, November 16, 1998, January 18, 1999 and February 22, 1999, CBS filed with the NRC an Application to transfer License No. SNM-770 to the new company named "Westinghouse Electric Company, LLC", which has assumed (with certain exceptions) the CBS commercial nuclear business, including License No. SNM-770. The relationship between CBS and WELCO and CBS's on-going responsibilities for completing the Waltz Mill SNM-770 Remediation Plan are set forth in the Application for license transfer. The transfer of the license was approved with the issuance of License Amendment Number 19 to the license

both Reference 1 and the attached documents in its issuance of an approval of the Remediation Plan. By letter dated March 16, 1998, the NRC approved plans for cleaning, inspection and further characterization of the process drain line on the site and, at the completion of this work, Westinghouse will submit its evaluation of remediation alternatives. By letter dated August 21, 1998, the NRC approved the remediation of the "retired areas" within buildings on the site. In both cases approval was contingent on the activities being performed in accordance with the terms and conditions of the license.

Approval of this revised soil plan would authorize another major portion of the work. Specifically, Westinghouse is requesting concurrence from the NRC to begin soil remediation activities as described in the attachments. Commencement of this work would allow Westinghouse to address those issues directly related to the inclusion of the Waltz Mill Site on the SDMP list. As noted in the attached document, Westinghouse will submit additional information regarding the approach to be taken for those few remaining portions of the soil in the operational areas of the site which are described in the Remediation Plan (Reference 1).

Due to the presence of contaminated groundwater, the release of the impacted area for unrestricted use would not be technically feasible within the next 25 years. This revision to the Remediation Plan proposes an alternate schedule for completion of the remediation activities (See the attached "Basis for Request for Alternate Schedule"). The proposed soil remediation plan would remove the significant source terms during the remediation phase and rely on radioactive decay and continued cleanup of the groundwater over time to allow unrestricted release of the area when the groundwater has reached concentrations that, when combined with other relevant pathways, are in compliance with an unrestricted release criteria. This conceptual approach was presented to the NRC (Reference 2) and has been acknowledged and generally supported (Reference 3). Since the affected area is fully contained on a licensed site and licensed operations are projected into the foreseeable future, the use of this extended time period would not be detrimental to the public health and safety

Upon completion of these soil remediation activities, a radiological status survey will be conducted to document the effectiveness of the remediation and the "as left" conditions. Also a revised environmental monitoring and control program will be developed based on the results of these surveys and the verified site conditions. A revised environmental program will then be submitted to the NRC as a proposed amendment to the SNM-770 site license.

Westinghouse requests approval of the attached documents by September 30, 1999. Timely approval of the soil remediation plan is necessary to maintain project schedule and to obtain maximum benefit from the favorable weather conditions for soil work. If you have any questions concerning information provided in this letter, please contact me at the above address or by telephone at (412) 374-4652.

Sincerely,



A. Joseph Nardi, Supervisory Engineer
Environment, Health and Safety

Attachment

cc:

Wayne Vogel, Radiation Safety Officer
Waltz Mill Site, Westinghouse Electric Company

James Yusko, Radiation Health Physicist
PA Department of Environmental Protection

Richard K. Smith, Director
Environmental Remediation for CBS Corporation

BCC:

B. Bowman

B. G. Holmes

R. Cline

W. Lavalley

R. Sisk

WESTINGHOUSE ELECTRIC COMPANY, LLC

**WALTZ MILL FACILITY
SNM-770
REMEDICATION PLAN**

BASIS FOR REQUEST FOR ALTERNATE SCHEDULE

August 9, 1999

BASIS FOR REQUEST FOR ALTERNATE SCHEDULE

A. Background Information

The revised soil remediation plan takes into account the following considerations:

1. Westinghouse Electric Company LLC (Westinghouse) plans to maintain License Number SNM-770 for the Waltz Mill Site and to continue licensed operations into the foreseeable future.
2. The Waltz Mill Site was placed on the "Site Decommissioning Management Plan" (SDMP) list primarily due to ground water contamination in the "Solid and Liquid Waste Processing Area" (SLWPA)
3. The impacted area (less than 5 acres) is centrally located and contained within a controlled and secured central operations area (approximately 85 acres) at the Waltz Mill Site. The total Waltz Mill Site property consists of approximately 850 acres, owned by CBS and operated by Westinghouse.
4. Security and radiological safety and controls are maintained at the central operations area of the site which is periodically inspected by the NRC.
5. The soil remediation plan proposes to use a soil criteria different from the SDMP Action Plan but consistent with the intent of 10 CFR 20 Subpart E Radiological Criteria for License Termination.
6. Groundwater analysis indicates that, regardless of the soil remedial actions taken at the Waltz Mill site, the contamination of the groundwater pathway would preclude meeting the license termination criteria for unrestricted release of 25 mrem/year (TEDE) as described in 10CFR20 Subpart. The ground water contamination is within the bedrock of the impacted area. Remediation of this area to an unrestricted release status at this time would therefore place an unnecessary economic burden on Westinghouse.
7. Westinghouse has demonstrated through the operation of an on-going groundwater remediation pump and treat program that containment, control, and reduction of the plume are possible and have been achieved. An active pump and treat and groundwater program will be continued during the soil remediation and post remedial periods.

B. Description of Proposed Soil Remediation Plan

Westinghouse has developed a revised soil remediation plan which modifies the applicable sections of the Waltz Mill SNM-770 Remediation Plan to incorporate the following soil remediation strategy:

1. Westinghouse will commence with the removal of the significant source terms which could potentially affect the groundwater in the areas currently described in the Remediation Plan
2. Westinghouse proposes a 25-year alternate schedule for meeting the unrestricted release criteria of 10 CFR 20 Subpart E based on the bounding conditions created by the groundwater contamination
3. Westinghouse proposes establishing a criteria for residual activity in soil based on a 25-year time delay to allow both the remaining soil activity and the groundwater contamination to restore through a natural process (decay) and continuing groundwater pump and treat to levels that are consistent with unrestricted release.
4. Westinghouse applied RESRAD for dose modeling using the residential farmer scenario and site specific parameters where justified.
5. Westinghouse proposes a set of Derived Concentration Guideline Levels (DCGL) for the soil. These DCGL's meet the requirements of Draft Regulatory Guide DG-4006 for license termination, and takes into consideration the health and safety of the public and on-site industrial worker.

C. Considerations for approval of an Alternate Schedule

In accordance with the provisions of 10CFR70.38(i), the Commission may approve a request for an alternate schedule for completion of decommissioning of the site or separate building or outdoor area if the Commission determines that the alternative is warranted by consideration of the following:

1. *Whether it is technically feasible to complete decommissioning within the allotted 24-month period;*
Evaluation - The physical limitation of the time it will take for the groundwater to reach a concentration consistent with an unrestricted release criteria make it technically infeasible to complete the remediation to an unrestricted release criteria within the allotted period.
2. *Whether sufficient waste disposal capacity is available to allow completion of decommissioning within the allotted 24-month period,*
Evaluation - This is not currently considered a limitation to the remediation effort.

3. *Whether a significant volume reduction in wastes requiring disposal will be achieved by allowing short-lived radionuclides to decay;*

Evaluation - Remediation of the soil in the areas now to a concentration level consistent with an unrestricted release in 25 years will reduce the volumes of soil that must be removed.

4. *Whether a significant reduction in radiation exposure to workers can be achieved by allowing short-lived radionuclides to decay; and*

Evaluation - This is not currently considered a limitation to the remediation effort.

5. *Other site-specific factors which the Commission may consider appropriate on a case-by-case basis, such as regulatory requirements of other government agencies, lawsuits, ground-water treatment activities, monitored natural ground-water restoration, actions that could result in more environmental harm than deferred cleanup, and other factors beyond the control of the licensee.*

Evaluation - This Plan is based on immediate soil remediation along with continued groundwater monitoring and treatment, as appropriate, to achieve conditions in the affected areas consistent with the unrestricted release criteria. Restoration of the groundwater will ultimately determine when this goal is reached but it is currently estimated that approximately 25 years will be required.

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CBS CORPORATION
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LOUIS J. BRISKMAN
EXECUTIVE VICE PRESIDENT
AND GENERAL COUNSEL

September 28, 1998

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Application for Transfers and Amendments of Materials Licenses

Dear Sir or Madam:

CBS Corporation ("CBS") is filing an Application for the transfer and amendment (the "Application") of special nuclear materials license Nos. SNM-1460 (CBS Science and Technology Center, Churchill, PA) and SNM-770 (CBS Waltz Mill Service Center, Madison, PA) (collectively the "Licenses")¹. This letter is a part of the Application and informs the Nuclear Regulatory Commission ("NRC" or "Commission") of the intent of CBS to retain responsibility for certain decommissioning activities under such Licenses.

The transfer of the Licenses is necessitated by a transaction whereby CBS will sell the assets (with certain exceptions) of its nuclear and government operations businesses to a consortium comprised of Morrison Knudsen Corporation ("MK") and BNFL USA Group, Inc. ("BNFL USA"). The details of the requested License transfers and amendments, including information with respect to the proposed licensees, are more fully described in the Application.

Under the Asset Purchase Agreement (APA) that will effectuate the transaction, CBS has agreed with MK and BNFL USA to retain the following financial responsibility for decommissioning and/or decontaminating certain facilities associated with the Licenses. In connection with such responsibility, CBS also has agreed to provide the following NRC-required decommissioning financial assurance under the Licenses.

¹ The name of the licensee on the Licenses reads Westinghouse Electric Company, a division of CBS Corporation.

License No. SNM-1460 - CBS Science and Technology Center.

Under the APA, CBS retains financial responsibility for the cost of decommissioning and decontaminating the facilities at the Science and Technology Center associated with license No. SNM-1460, to the extent such facilities continue to be operated in the same manner after the date of the closing of the sale transaction (the "Closing Date") and the License transfer as such facilities have been operated prior to the Closing Date. To the extent of such responsibility, for the life of the license, CBS will be financially responsible for decommissioning and will provide the decommissioning financial assurance under license No. SNM-1460 required by NRC regulations, as may be determined pursuant to such regulations from time to time.

License No. SNM-770 - Waltz Mill Service Center.

Under the APA, CBS also retains certain, but not total, responsibility for decontaminating certain facilities at the Waltz Mill Service Center associated with license No. SNM-770. Specifically, CBS has agreed, at its sole cost and expense, to implement all remedial measures, including removal and decontamination activities, as may be required by and are in accordance with approvals it is currently seeking under plans submitted to the NRC, under the "Waltz Mill Facility SNM Remediation Plan, Revision 0," dated November 27, 1996 (the "Plans"), for those areas of the Waltz Mill Service Center identified in the Plans as "Retired Facilities."² The Retired Facilities are associated with certain identified facilities and structures at the Service Center not presently utilized in on-going operations. Accordingly, until such time as the specified remediation activities under the Plans are completed with respect to the Retired Facilities and the NRC approves completion of the Plans, CBS will be financially responsible for such remediation and will provide the decommissioning financial assurance associated with the Retired Facilities under license No. SNM-770 required by NRC regulations, as may be determined pursuant to such regulations from time to time.

Scope of CBS's Obligations

CBS will undertake the following arrangements, to be effective as of the date of the closing of the sale transaction, in order to effectuate its retained decommissioning financial assurance responsibilities under the Licenses as described above. (The following arrangements do not limit CBS's responsibility described above.)

² CBS will not transfer license No. TR-2 associated with the 10 CFR Part 50 test reactor located at the Waltz Mill site as part of the sale transaction. Therefore, CBS will remain responsible to provide all decommissioning financial assurance associated with this license. CBS will file a separate application to the NRC seeking amendment of license No. TR-2 to reflect the changes to the license necessitated by the sale transaction.

1. CBS will provide financial assurance for decommissioning acceptable to the NRC to satisfy its financial assurance responsibilities under the Licenses in amounts that may be required from time to time. Initially, CBS will arrange for or cause a letter of credit ("LOC") to be issued by a qualified bank to the NRC for CBS's account in the amount, respectively, of: (i) the decommissioning financial assurance requirements for license No. SNM-1460 being retained by CBS hereunder (currently \$4,705,000.) and (ii) the decommissioning financial assurance requirements to complete the remediation activities associated with the Retired Facilities as described in the Plans for license No. SNM-770 (currently \$10,401,000). CBS also will establish an associated Standby Trust Agreement with a qualified trustee concurrently with the issuance of the LOCs.
2. The LOCs and Associated Standby Trust Agreement to be provided by CBS for the Licenses will be in the form CBS currently is providing to the NRC for its licenses (prior to their transfers) that require the provision of such decommissioning financial assurance. CBS will submit executed versions of the LOCs and the Associated Standby Trust Agreement, in furtherance of the NRC's approval of the Applications, as soon as they are finalized.
3. CBS will continuously maintain the LOC for license No. SNM-1460 unless and until a replacement LOC is approved by the NRC, or until CBS provides an alternate mechanism for meeting its financial assurance responsibility as approved by the NRC, and in either case, until the NRC authorizes termination of CBS's decommissioning financial assurance under license No. SNM-1460.
4. CBS will continuously maintain the LOC for license No. SNM-770 unless and until a replacement LOC is approved by the NRC, or until CBS provides an alternate mechanism for meeting its financial assurance responsibility as approved by the NRC, and in either case, until the Plans are completed with respect to the Retired Facilities and the NRC approves the completion of the Plans.
5. CBS understands that the NRC shall be entitled to draw on the LOC issued for a specific License for, respectively, decommissioning activities associated with the STC facilities or remediation activities associated with the Waltz Mill Service Center Retired Facilities under the Plans, in accordance with its financial assurance regulations and the terms of the LOC. CBS also understands that the NRC will surrender a CBS provided LOC to the LOC bank for termination (or terminate any other form of NRC-approved financial assurance mechanism CBS may provide) with respect to a specific License when, to the satisfaction of the NRC, the decommissioning or decontamination activities under the License for which CBS has retained responsibility have been completed.

NRC Acknowledgment.

Given its on-going and active role in providing financial assurance under the Licenses, as provided herein, CBS requests that the NRC acknowledge the foregoing arrangements to be effective as of the date of the closing of the sale transaction. In connection therewith, CBS further requests that the NRC acknowledge the following:

1. CBS will remain an active participant in the decommissioning and decontamination activities under the Licenses as described herein. CBS will have primary responsibility and authority to negotiate with and respond to the NRC with respect to: (i) any issues that may arise in connection with its provision of the stated financial assurance under the Licenses; and (ii) the conduct of decommissioning activities under license No. SNM-1460 or the completion of remediation activities with respect to the Retired Facilities under the Plans under license No. SNM-770, and any issues that may arise in connection therewith.
2. Upon any failure under the Licenses, as transferred, to meet a material term, condition, requirement or deadline that may impact CBS's retained responsibilities, as described herein, unless immediate action is required to protect the public health and safety, the NRC will provide written notice of such failure to CBS (and the licensee), discuss the corrective actions required to remedy such failure with CBS (and the licensee) and allow CBS (and/or the licensee) a reasonable time to implement agreed upon corrective action. CBS understands that in no event will any time allowed to it (or the licensee) by the NRC for notice and corrective actions, or the holding of any discussions, act to limit the NRC's authority to draw on the LOCs to be provided by CBS under the Licenses or limit its enforcement authority under its regulations
3. With regard to license No. SNM 1460, for so long as its financial assurance responsibilities remain in effect as described herein, the NRC, to the extent of such responsibilities, will in the first instance rely on CBS under such License; and thereafter, any remaining responsibility for decontamination and decommissioning under the License will remain with the licensee.
4. With regard to license No. SNM 770, for so long as its financial assurance responsibilities remain in effect as described herein, the NRC, to the extent of such responsibilities, will in the first instance rely on CBS under such License; and thereafter, the licensee will have all remaining responsibility for decontamination and decommissioning under the License.

5. The NRC will condition its approval of the transfers of the Licenses requested in the Application, as evidenced in the writing formally approving such transfers, upon the assumption by CBS of the responsibilities for decommissioning and decommissioning financial assurance described herein.

CBS agrees that its undertakings described herein are enforceable by the NRC directly against CBS. CBS also intends that the NRC specifically rely upon this letter in reviewing the decommissioning financial assurance requirements associated with the transfers of the Licenses as requested in the Application.

Should the NRC have any questions regarding this matter please contact William Wall, Esq., Assistant General Counsel, CBS Corporation at 412-642-3580.

Very truly yours,



Louis J. Briskman

Executive Vice President and General Counsel

LJB/jmg

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VIACOM INC.

11 STANWIX STREET
PITTSBURGH, PENNSYLVANIA 15222-1384

Michael T. Sweeney
Associate General Counsel

Direct Dial: 412-642-3343
Facsimile: 412-642-5730
E-mail: mtsweeney@cbs.com

July 5, 2000

Mr. Charles Pryor
President & Chief Executive Officer
Westinghouse Electric Company, LLC
Post Office Box 355
Pittsburgh, PA 15230

**Subject: Transfer of Remaining Westinghouse Test Reactor (WTR) Facilities to the
 Westinghouse Waltz Mill SNM-770 License**

Dear Mr. Pryor:

Pursuant to Section 8.1 of the Asset Purchase Agreement, by and between CBS Corporation and WGHN Acquisition, LLC, Inc., Viacom Inc. ("Viacom"), successor in interest (pursuant to a May 4, 2000 merger) to CBS Corporation ("CBS"), hereby requests that Westinghouse Electric Company LLC ("Westinghouse") accept transfer of the remaining Westinghouse Test Reactor (WTR) facilities from Viacom's TR-2 License to the Waltz Mill Facility's Special Nuclear Material License SNM-770.

Section 1.2 of the TR-2 Decommissioning Plan, as approved and as referenced in the Asset Purchase Agreement, provides that, upon removal of the reactor vessel internal contents, the reactor vessel and the biological shield, the remaining WTR facilities and the residual radioactivity associated therewith will be transferred to the SNM-770 license.

Through the efforts of Westinghouse and its other contractors, Viacom has caused all of the above referenced work to be completed. The reactor vessel was shipped off site on May 15, 2000 for processing and disposal. Those portions of the biological shield necessary for the vessel removal have been dismantled and are in the process of being shipped off site for disposal. Therefore, Viacom is now in a position to request that the NRC terminate the TR-2 License. In order to accomplish the TR-2 License termination, Westinghouse must amend the SNM-770 License to accept the facilities and residual contamination for further remediation under the SNM-770 Remediation Plan.

In order to facilitate the orderly transfer of the remaining WTR facilities and residual contamination as described in Attachment 1 (not including the reactor tank and its internal contents) and as modified by Attachment 2, Viacom requests Westinghouse to:

1. Confirm Westinghouse's agreement to accept the remaining WTR facilities and residual contamination onto the SNM-770 License by July 31, 2000.
2. Submit a request to the NRC by August 31, 2000, for an Amendment to the SNM-770 License accepting the transfer of the remaining WTR facilities and residual contamination and incorporating the facilities into the SNM-770 Remediation Plan.

In coordination with Westinghouse, Viacom will submit to the NRC documentation verifying that the TR-2 License termination conditions have been met, and requesting an amendment to the TR-2 License transferring the WTR facilities to the SNM-770 License. The requests for an amendment should be sent to the NRC no later than August 31, 2000 in order to provide the regulators sufficient time to complete the transfer by the end of the year. In the interim Viacom will continue to remediate the remaining WTR facilities and the other retired Waltz Mill facilities in accordance with the NRC approved decommissioning and remediation plans.

Upon completion of the transfer of the WTR facilities to the SNM-770 License and the termination of the TR-2 License, Viacom will transfer copies of the TR-2 records maintained in accordance with 10 CFR 50.75 to Westinghouse to be incorporated with the SNM-770 documents as required by 10 CFR 30.51, 40.61, and 70.51. In addition, Viacom will maintain the financial assurances, established in accordance with 10 CFR 50.75(e) for the WTR facilities as described in the Asset Purchase Agreement, dated June 26, 1998.

Viacom looks forward to working with Westinghouse in effecting a smooth and orderly transfer of the WTR facilities to the SNM-770 License. If you have any questions or require additional information regarding this letter please contact Mr. Richard K. Smith, Director of Environmental Remediation for Viacom.

Sincerely


Michael T. Sweeney
Associate General Counsel

Attachments

Cc (with attachments):

Marlene W. Jackson, Esq.
Assistant General Counsel
Westinghouse Electric Company, LLC

Joseph Nardi
Supervisory Engineer
Westinghouse Electric Company, LLC

Wayne Vogel
Radiation Safety Officer
Westinghouse Electric Company, LLC

Richard K. Smith
Director – Environmental Remediation
Viacom Inc.

Cc (without attachments)

William L. Lavallee
Remediation Project Technical Lead
Westinghouse Electric Company, LLC

Broadus M. Bowman
Remediation Project Director
Viacom Inc.

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**Westinghouse
Electric Company**

F Flansy Coates
Vice President and
General Counsel

PO Box 355
Pittsburgh Pennsylvania 15230-0355

August 1, 2000

Michael T. Sweeney, Esq.
Viacom Inc.
11 Stanwix Street
Pittsburgh, PA 15222

Re: Transfer of Remaining Westinghouse Test Reactor (TR-2) Facilities to the
Westinghouse Waltz Mill SNM-770 license

Dear Mike:

Your letter of July 5, 2000 to Mr. Charles Pryor has been referred to me for consideration and response. As explained below, Viacom Inc., successor to CBS Corporation, has not yet met the preconditions required for transfer of the Test Reactor facilities under the TR-2 License ("TR-2 Facilities") to the Waltz Mill SNM-770 License.

Pursuant to Section 8.1 of the Asset Purchase Agreement with CBS Corporation, dated June 25, 1998 ("APA"), Westinghouse agreed to accept certain portions of the TR-2 Facilities into the SNM-770 license. However, transfer of the TR-2 Facilities was contingent upon Viacom meeting the requirements of the TR-2 Decommissioning Plan and Viacom's commitment to continue remediation of the residual contamination associated with the TR-2 Facilities under the SNM-770 Remediation Plan.

Section 1.2 of the TR-2 Decommissioning Plan provides that transfer may be requested once reactor vessel internal contents, the reactor vessel and the biological shield are removed. Based on the description in your letter of Viacom's activities, Viacom has not yet complied with all of the conditions listed in the TR-2 Decommissioning Plan. Viacom has only removed those portions of the biological shield necessary to remove the reactor vessel. The TR-2 reactor building still contains those portions of the biological shield formed by the walls of the sub-pile room. As a consequence, Viacom is not entitled to request termination of the TR-2 License and transfer of the residual contamination to the SNM-770 license.

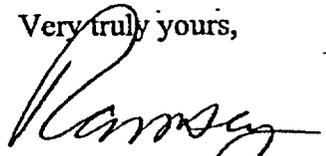
Please be assured that Westinghouse is committed to meet its obligations under the APA. However, at this point we are not willing to accept transfer of the TR-2 Facilities into the SNM-770 license until the parties have reached agreement on the end condition of the TR-2 building,

removal of the biological shield and continued remediation of the residual contamination associated with TR-2 Facilities.

Moreover, I would like to also point out that the Site is not able to identify any future licensed use for the TR-2 building. The configuration of the building does not readily lend itself to reuse. Also, the present deteriorated condition of the building and the asbestos insulation materials remaining on or in the building prevent the Site from identifying a continued licensed use for the building. Without a defined future licensed use, the building, its appurtenances and the surrounding and underlying soils will have to be remediated by Viacom accordance with the free release criteria in the SNM-770 Remediation Plan.

Please identify someone with whom our staff can work to resolve these issues. If you have any additional questions, please feel free to call Marlene Jackson or me.

Very truly yours,



F. Ramsey Coates
Vice President and General Counsel

cc: C. W. Pryor

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**Westinghouse Test Reactor
Decommissioning Licensing
Safety Evaluation**

Proposed Change to the WTR Decommissioning Plan

September 1999

Prepared By: Robert L. Hill 10/4/99
Date

Reviewed By: Ernest J. Phipps 10/11/99
Date

DT Program Manager/Designee: W. F. Avellee 10/14/99
Date

Westinghouse Test Reactor Decommissioning Licensing Safety Evaluation

1. Background Information and Summary

The Waltz Mill Decommissioning Plan for the Westinghouse Test Reactor (WTR) approved by the Nuclear Regulatory Commission (NRC) in Amendment 8 to the TR-2 License on September 30, 1998, describes two options for removing the WTR reactor.

Option 1 - A one-piece reactor tank removal through an opening in the containment dome

Option 2 - A multiple piece reactor tank removal

Since the time this decommissioning plan (DP) was submitted and approved by the NRC, the Waltz Mill Decommissioning Team (WMDT) has developed a preferred third option. This preferred Option 3 provides for a one-piece removal of the reactor tank through the truck lock.

This third option draws on the strengths of the other two options and provides a process which is ALARA, safe and efficient without making a large opening in the containment dome or requiring multiple cuts of the tank while it is in containment.

The major advantages of Option 3 over Option 1 are:

- 1) The tank is down-ended, not lifted 100 feet into the air - safer and less risk
- 2) Does not require a large hole to be installed in the dome - maintains containment integrity and no structural or confinement issues
- 3) All bio-shield concrete is removed from the tank - less weight and removes concern for integrity of the concrete during the removal of the tank
- 4) No internal grout, core structure will be restrained with existing core anchor lugs and loose objects will be encapsulated with a fixative - resulting in less weight and less low level waste (LLW)

The major advantages of option 3 over option 2 are:

- 1) One piece removal requires fewer cuts of the reactor tank - creating less waste and less handling and processing of LLW
- 2) One piece removal is ALARA
- 3) One -piece removal is more cost effective

This proposed activity would involve a change in the decommissioning activities or methods described in the decommissioning plan and involves an activity that could result in decommissioning operations not described in the Decommissioning Plan which could have an adverse effect on radiological safety. Therefore in accordance with WMDT Procedure 6.2 - "Decommissioning Licensing Evaluation", WTR Decommissioning Plan Section 1.4 - "Administration of the Decommissioning Plan" and Technical Specification 6.2.3 "Review Requirements" this Safety Evaluation provides the basis for the 10 CFR 50.59 evaluation required for changes to the Decommissioning Plan.

2. Licensing Basis

The decommissioning of the WTR was authorized by the NRC through Amendment 8 to Facility License No. TR-2, Docket Number 50-22, on September 30, 1998. As a part of

**Westinghouse Test Reactor
Decommissioning Licensing
Safety Evaluation**

Amendment 8, the NRC issued and approved the WTR Decommissioning Plan, a set of Technical Specifications, a Safety Evaluation, an Environmental Assessment and a Finding of No Significant Impact.

Changing the DP using a 10 CFR 50.59 evaluation is authorized, when appropriate. Section 1.4 of the DP specifically states that "the provisions of 10 CFR 50.59 shall apply to the NRC approved DP and the criteria to be used in evaluating changes to the plan will be included in project procedures." Project procedure WM-DT-6.2 describes the licensing evaluation requirements, and the technical specifications requires that all 50.59 evaluations be reviewed and approved by the TR-2 Radiation Safety Committee.

2. Evaluation

The proposed change to the WTR Decommissioning Plan applies to Section 2.1 - "Choice of Decommissioning Methods and Description of Activities" and Section 2.2 - "Decommissioning Objectives, Methods and Schedule." The WMDT has developed an alternative approach to the removal of the WTR reactor tank. This approach combines some of the features of Option 1 and Option 2 described in the DP to allow the removal of the reactor tank in one piece through the Truck Lock. This approach has been determined to be safer, simpler, ALARA and cost effective. A mark up of the affected sections of the DP is provided in Attachment 1 and summarized below:

Option 1 of the current decommissioning plan considered simultaneously lifting the reactor tank and a portion of the concrete biological shield, a total of 148 tons, up to a height of about 100 feet through an approximately 12-foot diameter opening made in the containment dome. The reactor tank would be grouted with low-density grout prior to lifting.

Option 2 of the current plan considered cutting the biological shield away from the reactor tank and sectioning the tank into two or more pieces then removing the parts through an opening in the side of containment, most likely the Truck Lock. This method would not require grouting but required increased cutting and processing of low level waste in containment prior to packaging and shipping.

Proposed Option 3 would require a total lift of less than 110 tons. This value is bounded by the original accident analysis. In addition tank removal from containment would not require lifting/suspending the tank over 50 feet in the air.

The assumptions made to support the first two options bound the accident conditions for Option 3.

Accident and Malfunctions Previously Evaluated in the Safety Analysis Report

The current accident analysis described in both the Decommissioning Plan and the NRC's Safety Evaluation considered the following accident scenarios:

1. Dropping of concrete block /rubble
2. Fire/Explosion
3. Canal sediment criticality and handling
4. Rupture of a high efficiency particulate air (HEPA) vacuum bag

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For the purposes of the safety evaluation, the original accident analysis postulated a total lift of 148 tons for both the tank and the concrete and dropping a 50-ton block of concrete resulting in 1000 pounds of dust going airborne. Option 3 would not exceed the worst case accident condition.

The following questions must be answered in evaluating whether an unreviewed safety question exists:

- 1. Would the proposed activity increase the probability of occurrence of an accident evaluated previously in the Decommissioning Plan?**

The proposed change to the decommissioning plan would not increase the probability of an accident previously evaluated.

The proposed option reduces both the total weight and the total activity which would be lifted in containment at one time. In addition, the height from which the tank and biological shield blocks (bioshield) would be suspended has been reduced. Option 3 also eliminates the need to install a large (10-12 foot) hole in containment significantly reducing the probability of contamination from containment being released into the environment.

- 2. Would the proposed activity increase the consequences of an accident evaluated previously in the Decommissioning Plan?**

The proposed activity would not increase the consequences of an accident previously evaluated.

By eliminating the need to cut a hole in the containment dome, Option 3 would more effectively maintain the integrity of the containment during the decommissioning. By removing the tank in one-piece the potential for spreading loose surface and airborne contamination through the cutting, processing and packaging of the tank while it is in containment is also reduced.

- 3. Would the proposed activity create the possibility of an accident of a different type than previously evaluated in the Decommissioning Plan?**

Option 3 introduces five new issues to consider:

1. The tank will be moved, packaged and shipped without the use of grout. Is it necessary to grout the reactor tank interior to stabilize the core region and prevent the shifting dose levels due to the shifting of activated parts in the tank?
 - MK Analysis - WMDT-99-051 performed a calculation to verify that the reactor core hold down lugs would be adequate to withstand the effects from transportation loads. The conclusion drawn from this analysis is that all stresses at the shell and core support are within acceptable limits. In addition, the core anchor lugs were determined to be sufficient for restraining the core structure in place during shipping.

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- TLC Free Coating Engineering Evaluation Report - WMDT-INT-99-057 - A test was conducted by Westinghouse on the adhesive quality of the TLC Free strippable coating to stainless steel and its ability to restrain the movement of loose material in the reactor tank. Results of the test indicated that the proposed strippable coating should adequately retard or constrain the movement of loose items in the reactor tank during the short duration required to transport the reactor tank to ALARON
 - GTS Duratek conducted a Dose/shielding analysis - WMDT-99-TBD - on the shipping package to assess the radiological or dose impact of loose material collecting in the bottom of the reactor tank. Based on the proposed package configuration, if loose material were to collect in the bottom of the reactor tank shipping package a small increase in dose could result; however the impact would be minimal and could safely be handled, if necessary, by adding shielding to maintain transportation limits. Note the dose requirements for the package are:
 - ⇒ 1 Rem/hr at 3 meters from unshielded material
 - ⇒ 200 Mrem at any point on the external package surface.
2. The tank will be down-ended in containment so that it can be taken out via the Truck Lock. Could the tank integrity be breached as a result of the down-ending process?
- MK Analysis - WMDT-99-052 performed a calculation to determine the effects from down-ending, impact and transportation loads to ensure that the strong tight shipping package is maintained. Based on this analysis all results were within acceptable limits. There are three primary conditions where the stresses are reported:
 1. Down-ending: The reactor tank is lowered from vertical position to the horizontal position
 2. Impact Condition: Investigate effects from a possible impact when removing concrete shielding blocks to assure the existing anchor bolts would not fail resulting in the reactor tank tipping over.
 3. Transportation Conditions: The 3 G loading required to meet the transportation requirements for rail transportation
- The limiting design, worst case for which the package must be designed, was the transportation conditions. The package design meets all of the analyzed the stress requirements and the stress values are reflected in this report.
3. Can the containment floor, truck lock floor, and transfer canal absorb the loads resulting from the shifting and moving of the reactor in one piece from its current position through the truck lock?
- MK Analysis - WMDT-99-059 performed a calculation to verify the adequacy of the truck lock platform to support the anticipated loads from loaded trucks, forklifts, lifting and rigging equipment and the reactor tank as it is being

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down-ended and removed from containment. Based on the results of this analysis the estimated loading on the truck lock platform will exceed its design capacity. Temporary shoring system for the reactor removal process will be installed.

- MK Analysis - WMDT-99-059 also provided an evaluation of the impact of unloading the foundation as the concrete and reactor tank are removed. Two conditions were considered (1) uplift due to buoyancy and (2) uplift due to rebound of the foundation bedrock. In both cases no adverse effects on the canal structure are anticipated.

4. The transfer canal could have water in it when the tank is removed. Does this increase the possibility of an accidental release to the environment?

- MK Analysis - WMDT-99-058 evaluated various scenarios to determine if reactor removal operations would negatively impact the transfer canal integrity during removal operations. The scenarios assessed include:

Reloading The Lower Support Structure, A Vertical Drop through the sub-pile room, concrete block drop and loss of control of the reactor tank. Based on the results of these evaluations, removing the reactor through the truck lock with water in the canal should not increase the possibility of an accidental release to the environment.

5. Would the inadvertent bumping of the reactor tank by a 20-ton concrete block jeopardize the integrity of the tank or result in dislodging the tank?

- MK Analysis - WMDT-99-052 and WMDT-99-059 provided calculations to determine the effects of impacting the reactor tank with a concrete block. These evaluations show that an inadvertent bump of the tank would not cause the tank to topple or cause a breach in the tank wall.

4. Does the proposed activity reduce the margin of safety as defined in the basis for any Technical Specifications?

Option 3 does not reduce the margin of safety as defined in the basis for the technical specification.

Packaging and shipping the reactor tank in one piece was covered by Option 1 and removal of the tank through the Truck Lock is covered in Option 2. Since the technical specifications were written to support both scenarios Option 3 can be performed within the existing technical specifications without reducing any margins of safety.

4.0 Conclusion

Based on this evaluation and the results of the referenced analyses, the proposed change does not represent an unreviewed safety question and can be implemented under the provisions of 10 CFR 50.59.

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5.0 References

1. WMDT-99-051 - Reactor Core Hold Down Lugs
2. WMDT-99-052 - Reactor Tank Removal and Transportation Evaluation
3. WMDT-99-059 - Truck Lock Platform Evaluation
4. WMDT-99-057 - Block Impact Load Analysis
5. WMDT-99-059 - Unloading of the Foundation (lower support)
6. WMDT-99-058 - Transfer Canal Report
7. WMDT-INT-99-057 - TLC Free Coating Engineering Evaluation Report
8. WMDT-99-TBD - GTS Shielding Calculations

SECTION 2
CHOICE OF DECOMMISSIONING METHOD
AND DESCRIPTION OF ACTIVITIES

2.1 DECOMMISSIONING METHOD

Decommissioning, as described in this Plan, will be accomplished by removal and disposal of ~~the remaining reactor tank internal contents, the reactor tank, and the biological shield~~ portions of the biological shield, the reactor tank and the reactor tank internal contents. The balance of the WTR facility components and the remaining residual radioactivity will be transferred to the SNM-770 License. There are no radiological limits applicable to the transfer of structures, materials, and equipment to the SNM-770 License, other than the radioactive materials possession limits specified in the SNM-770 License. Prior to the transfer, the SNM-770 License will be amended as necessary to include the remaining WTR associated radioactive material inventory. Additionally, any other document revisions required as a result of this transfer will be performed. Future use of these structures, materials, and equipment shall be appropriately maintained in accordance with the SNM-770 license conditions and site procedures controlling occupational and public exposure.

In addition to removing ~~the reactor tank internal contents, the reactor tank, and the biological shield~~ portions of the biological shield, the reactor tank and the reactor tank internal contents, decontamination and dismantlement activities may be performed on other structures and equipment located within the WTR containment building. These other activities are not required for WTR decommissioning; however, they are addressed herein as optional activities that may be undertaken under the authority of the TR-2 Decommissioning Plan, prior to transfer of remaining residual radioactivity and WTR facilities to the SNM-770 License. The approved acceptance criteria associated with the retired facilities in the SNM-770 Remediation Plan will also be used for these other areas.

Precedent for transferring the residual radioactivity to the SNM-770 License has already been established by Amendment Numbers 3, 4, and 6 to the TR-2 License. These Amendments transferred previous WTR facilities to the SNM-770 License (Truck Lock Building, Facilities Operations Building, and WTR Basins).

CHOICE OF DECOMMISSIONING METHOD AND DESCRIPTION OF ACTIVITIES

2.2 DECOMMISSIONING OBJECTIVE, ACTIVITIES, METHODS AND SCHEDULE

2.2.1 Decommissioning Objectives

The objective of this Decommissioning Plan is to outline the activities for removal of the WTR reactor tank internal contents, the reactor tank, and the biological shield, to the point where the TR-2 License can be terminated by transferring the remaining residual radioactivity and WTR facilities to the SNM-770 License. Decommissioning will be by removal, dismantlement, decontamination, release of clean items and disposal of contaminated waste

2.2.2 Decommissioning Activities

The general activities needed to complete the Plan objectives are:

- ~~Remove the remaining reactor tank internal contents, the reactor tank, and the biological shield portions of the biological shield, the reactor tank and the reactor tank internal contents.~~
- Prepare the decommissioning generated material for release or disposal; either decontaminate and release as non-radioactive waste, or package for transport as radioactive waste.
- Ship all radioactive waste off-site to a licensed waste processor or disposal facility. In the event that no acceptable licensed disposal facility is available, waste may be retained onsite or, after processing, returned to the site for interim storage.
- Determine the residual radioactivity remaining and prepare the necessary amendments to the SNM-770 License.
- Request transfer of the remaining residual radioactivity and WTR facilities to the SNM-770 License.
- Request termination of the TR-2 License.

The Plan includes examples of decontamination techniques, equipment and materials which may be used, a schedule, special training requirements for workers, radiation protection and occupational safety and health practices. Selection of decommissioning methods is heavily influenced by worker and public ALARA considerations. A list of WTR facilities, planned decommissioning and decontamination activities and estimated worker exposure (person-rem) is presented in Table 2-1.

Work plans will be prepared to address issues such as asbestos, lead, or other known hazardous materials in the area of work. The final decommissioning methods will utilize the best, most economical means to minimize hazardous, mixed and radioactive waste

CHOICE OF DECOMMISSIONING METHOD AND DESCRIPTION OF ACTIVITIES

volume requiring licensed disposal. From the standpoint of cost-effectiveness, contaminated equipment, materials, etc., may be decontaminated, allowing release for unrestricted use, or packaged for transport and disposal. This Plan allows flexibility in the choice of decontamination procedure/technique and sequence.

2.2.2.1 Pre-decommissioning Activities

~~Two-Three~~ alternative methods for removing the WTR reactor tank are under consideration that potentially affect pre-decommissioning activities. These ~~two-three~~ options are 1) one-piece removal through the containment dome, and 2) multiple piece-removal through the truck lock, and 3) one-piece removal through the truck lock. The ~~one-piece-first~~ removal option involves cutting an opening in the containment building and lifting the reactor tank and part of the biological shield out of the containment building with an external crane. The ~~multiple-piece-second~~ removal option involves sectioning the reactor tank and the biological shield concrete into pieces that can be removed through the truck lock with the existing overhead crane. The third removal option involves cutting away a portion of the biological shield and downending the reactor tank out through the truck lock. As discussed below, these ~~three~~ alternatives have different impacts on activities to upgrade the existing crane, maintain integrity of the containment building, and install a filtered ventilation system.

Access Control

Initial access to the WTR facility will be established through the existing air locks that separate the WTR from the G Building Annex. This access could be used for equipment and material required for the installation of a new HEPA filter system to-in the existing containment building and for any required repairs to the interior truck lock door. Following HEPA installation and operational verification of the filtration system, the majority of equipment and material access to the WTR will be through the adjacent truck lock on the north side of the reactor, except for any materials removed through a temporary containment building access opening, if the ~~one-piece-first~~ removal method is used.

The east air lock will continue to be used as the main control point for personnel access to the containment building. A change area will be provided at the entrance to the east air lock in the annex to route personnel upstairs and out through the annex building (see Figure 2-1). Personnel access to the containment building may also be provided through the truck lock.

HEPA Filtration/Ventilation System

A HEPA filtration/ventilation system will be installed. This system will be capable of creating a negative air pressure within the containment building when personnel access airlock doors are open. In addition, this system will be capable of maintaining an inward

CHOICE OF DECOMMISSIONING METHOD AND DESCRIPTION OF ACTIVITIES

airflow within the containment building during times when a large component removal hole (if installed) or if the truck lock door is open in the containment building.

Truck Lock Door

Electrical service will be re-established and repairs made to the truck lock door motor and hoist to allow controlled equipment and material access to and from the containment area.

Temporary Utilities

Temporary lighting and power will be installed in accordance with applicable requirements, as well as local safety codes. Some existing electrical systems may be used, after inspection and repairs.

Polar/Mobile Crane

The polar crane and components may be repaired and/or upgraded, as necessary, to allow for safe operation throughout the decommissioning activities. Prior to use, the manufacturer or qualified inspector will certify the crane and components for safe operation, including performance of necessary load tests.

An alternative to using the overhead crane is using a mobile crane operated from outside of the containment building for reactor tank one-piece removal as described in the first option. This requires that a hole be cut in the containment building roof to allow the crane to access the sectioned components for lifting. If cutting is required after the containment tank is breached, additional engineering or administrative controls will be used.

Decommissioning Activity and Associated Person-rem

Each decommissioning activity has an estimated worker exposure calculated for that task which is dependent on labor loading, decommissioning method, and known radiological conditions. The decommissioning methods selected strive for ALARA exposures to the workers. These estimated doses are presented in Table 2-1 at the end of this section.

2.2.2.2 Additional Material Handling Capabilities

General

To facilitate safe and efficient material handling capabilities, temporary support structures may be assembled and installed. This may include providing a method for easy transportation of heavy and/or bulky materials and equipment out of the containment building, as well as providing an additional temporary containment (auxiliary area) adjacent to the truck lock.

Temporary Transportation System

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Heavy and/or bulky materials which require removal from the containment building, such as sectioned concrete, reactor tank and components, etc., may require additional transportation capabilities. The addition of a rail cart or similar capacity transportation device in the truck lock area will allow the safe and efficient removal of the material to a staging area in preparation for transport or to other areas for further processing. ~~This temporary transport system will not be required if the reactor tank is removed in one piece.~~ An example of such a transport system, in this case a rail cart, is shown in Figures 2-2 and 2-3.

Adjacent Auxiliary Area

A temporary auxiliary area adjacent to the truck lock building (shown as Tented Area in Figure 2-2) may be utilized to process material removed from the containment building. This auxiliary area will be covered by a temporary building. The area may be used to decontaminate material, survey and/or sample material, section or segregate clean from contaminated material, and/or package material for transportation to an off site processing location or a licensed disposal facility. This area may be necessary due to space constraints within the containment building and will allow dismantling activities to progress with minimal interruption.

The temporary auxiliary area will be fully contained and provided with a HEPA ventilation system sufficient to maintain a negative pressure within the area while materials are processed. Procedures and/or work plans will describe acceptable methods for movement of materials into and out of the auxiliary area.

2.2.2.3 Removal of Hazardous Materials

Lead

Approximately 266,000 pounds (385 cubic feet) of lead in the form of brick, sheet, shot and other casting remain in the reactor area. Some of the lead material may require decontamination prior to final disposition. Lead will be surveyed and/or sampled for radioactive contamination in order to segregate clean material from contaminated material. The material will be packaged in transport containers, as necessary, and removed from the containment building. Contaminated lead may be decontaminated on site or transported to a licensed facility for treatment. Options for the beneficial re-use of lead will be evaluated and the most cost effective method for final disposition pursued.

Lead-Containing Coatings

Demolition work performed during the TR-2 decommissioning project may require the removal of lead-containing coatings, or remediation in areas where lead dust may have accumulated. Upon identification of these areas, a qualified lead abatement subcontractor, or qualified remediation team workers, will be used to remove the lead containing coatings or dust.

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Any work performed that requires a torch to metal that has a lead-containing coating, will have the coating removed by a qualified abatement subcontractor or qualified remediation team worker. The activities will be performed prior to any torch to metal work or grinding of lead containing coatings and will comply with the Waltz Mill Remediation Project Site Specific Safety and Health Manual.

Asbestos Abatement

Asbestos containing materials will be removed and packaged for disposal prior to any decommissioning activities in areas where these materials exist, provided these activities can be conducted safely and radiation exposure can be maintained ALARA. Asbestos has been identified in the floor tiles on the operating floor (elevation 16'0"), on several of the intermediate reactor platforms (elevation 32'3" and 36'7 1/2"), and in the test reactor piping systems insulation. Removal and disposal of asbestos will be accomplished by a licensed asbestos abatement contractor. Additional asbestos materials discovered in the course of decontamination activities will be abated by the asbestos contractor, as needed.

2.2.2.4 Reactor Tank and Biological Shield

General

The stainless steel reactor tank is centered and encased within the biological shield. The tank is approximately 8 feet in diameter and 32 feet in length, extending vertically from approximately elevation 62' down to the top of the sub-pile room at elevation 29'. Access to the reactor tank is available from the top, at the reactor head, and the bottom at the tank's bottom flange. The interior of the tank may be accessed by removing either the reactor head or the bottom flange in the sub-pile room. Radioactive contamination is present as surface contamination and component activation within the reactor tank. The most feasible means of access ~~will~~ would be through the reactor head or the access plugs in the reactor head.

Removal of the WTR reactor tank and biological shield will proceed following either one of two options:

Option 1- One-Piece Reactor Tank Removal Through the Containment Dome

Option 2- Multiple Piece Reactor Tank Removal Through the Truck Lock

Option 3- One-Piece Reactor Tank Removal Through the Truck Lock

~~Both~~ All of the options are presented in this Decommissioning Plan to allow overall project flexibility. The final course of action will be determined based on engineering, licensing, and ALARA considerations.

Option 1- One-Piece Reactor Tank Removal Through the Containment Dome

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Option 1 involves removing ~~the majority~~ a portion of the biological shield, and lifting the entire reactor tank and internal components intact out of an opening cut into the top of the containment building. Details of the rigging and lifting are provided in Section 2.2.3.1; a conceptual drawing is provided as Figure 2-4 sheets 1 of-36, 2 of-36, and 3 of-36.

Option 1 requires the following actions for one-piece removal of the reactor tank and internal components:

- a) Remove ~~excess~~ portions of the biological shield;
- b) Inject low density grout into the reactor tank;
- c) Fix external contamination and prepare the tank for rigging;
- d) Cut an opening in the dome of the containment building;
- e) Lift the reactor tank and remaining biological shield out of the containment building;
- f) Prepare and ship the tank to a licensed disposal facility.

Remove Excess Biological Shield

The ~~excess~~ portion of the biological shield beyond approximately one foot from the tank exterior will be cut ~~from the tank~~, removed, and staged for final disposition in a safe and secure manner. With ~~the excess~~ a large portion of the biological shield removed, the reactor tank and remaining biological shield attached to the tank will be approximately 32 feet tall by 10 feet ~~square~~ in diameter, and will weight approximately 148 tons.

Inject Low Density Grout into the Tank

A low density cellular grout (approximately 20-25 pounds per cubic feet wet density) may be used for stabilizing components and fixing contamination inside the reactor tank. The reactor piping may also be removed and the control rod drive mechanisms will be removed from the reactor tank. Covers will be positioned and welded to the cut/prepared reactor tank openings. Once the major openings are sealed, the reactor tank may be filled with low density grout. Some opening will have to be used to inject the grout.

The grout mix, equipment, materials, personnel and methods to be employed for this operation will be substantially the same as those previously used for other large nuclear steam supply system component removals. The grouting equipment will be kept outside the containment as much as possible to avoid contamination and minimize waste volumes.

Fix External Contamination and Prepare for Rigging

A paint or similar coating will be applied to the outside surface of the remaining biological shield to fix contamination in place. This paint/coating will be a high solids encapsulating paint/coating. (This application has been used in similar processes for steam generator component removal.) The paint/coating may be applied to the surfaces with minimal surface preparation. In addition to or as a replacement for the

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painting/coating, the remaining biological shield may be placed in a container or sleeve to control the spread of contamination.

Cut an Opening in Dome of the Containment Building

A layout plan will be prepared for accurate alignment of the dome cutting operations to minimize the size of the opening required for the large component removal. After the cut layout is marked on the dome, the cut may be made, using torch or equivalent method. A temporary closure will then be installed over the opening after the cut is complete; the opening will be uncovered only during actual rigging and lifting of the components. This temporary closure will allow a negative pressure to be maintained in the containment building when the enclosure is installed.

Rigging and Lifting the Reactor Tank and Remaining Biological Shield

After the tank has been prepared, the outside crane will be positioned and the rigging attached to the reactor tank and remaining biological shield. The lifting rig will be designed to lift the total calculated loads. Once the lifting arrangement has been attached, the rigging slack will be taken up, and the load transferred to the outside crane. The reactor tank will then be lifted from the containment building and staged in a safe and secure manner.

Prepare and Ship the Reactor Tank/Remaining Biological Shield to a Disposal Facility

After the reactor tank and remaining biological shield have been lifted out of the containment building, it will be prepared for shipping. Either the tank/biological shield will be modified so that it becomes the waste package, or it will be placed inside a cask/container. Packaging, shipping, and transportation will comply with all applicable licensing and shipping regulations. Safety analyses and radiological surveys will be performed, and special permits will be obtained before shipping the tank/biological shield to a licensed disposal facility, as required.

Option 2 - Multiple-Piece Reactor Tank Removal Through the Truck Lock

The multiple-piece option involves cutting the biological shield off of the reactor tank using a diamond wire saw, removing the upper and lower reactor internals, and cutting the upper, middle, and lower tank into sections. All of the sections will be within the capacity of the interior polar crane to allow moving the sections from the work area onto a transport system and then out of the containment building. The process for the multiple piece removal is described as follows:

Upper Tank Internal Components

Prior to removal activities an interim HEPA filtration system, capable of creating a negative pressure within the tank, will be installed at one or more inspection ports at the reactor head (elevation 61' 8 1/2", see Figure 2-5). From the sub-pile room (elevation 29' 8"), access ports will be removed from the bottom flange of the tank to allow

installation of HEPA filtration ducting at the bottom of the reactor tank. The interim HEPA system, at the reactor head, can be removed once ventilation through the bottom flange is established. The reactor head can then be removed using a crane.

The head can be placed on the head stand located on the second platform (elevation 51'0"). Depending on radiological conditions, construction of a temporary containment and air lock over the tank may be required at the reactor head while the internal components are removed.

Removal of upper internal components from the reactor tank can be done manually using long handled tools, as appropriate, to maintain exposure ALARA. Figure 2-5 depicts the reactor with internal components in place. Control rods, guides, flanges and piping penetrations will be dismantled with hand tools and/or cutting, as appropriate. Once the reactor internal components are removed, reducing the dose rates within the tank, access can be allowed provided that exposure can be maintained ALARA. Welded components within the reactor tank will be removed using appropriate cutting equipment (e.g., plasma torch). A lay down area for the internal components will be located on the platform adjacent to the reactor head (elevation 61'8 1/2"). Debris will be handled manually, again using long handled tools, as appropriate, or lifted out using a crane. Waste containers will be positioned on the platform for material packaging and removal. Filled waste containers will be removed from the platform using a crane and positioned on the transport system for transfer to the staging area.

Upper Platforms and Biological Shield

The upper platforms and the upper biological shield will be removed after the upper tank internal components are removed. Figure 2-6 illustrates how the upper portion of the biological shield will be removed by sectioning. The sectioning plan is based on the results of concrete core samples, which allows for separation of activated from non-activated concrete. Concrete blocks will be sectioned to stay within the load limits of the crane. Blocks of removed concrete will be moved by the crane and placed on the floor at elevation 16'0" in a designated low background area. The blocks will be surveyed and sampled for contamination and prepared for removal from the containment building. Contaminated blocks will be transported to an auxiliary area for decontamination or packaging for disposal. Concrete blocks meeting the unrestricted release criteria may be transported to an appropriately permitted landfill. This procedure will be repeated throughout the removal of the remainder of the biological shield and upper platforms.

Mid Biological Shield Area

The mid biological shield area will be removed from the perimeter of the tank leaving a center square column of concrete around the core of the reactor. This column of concrete will remain, acting as shielding, until removal of the tank's internal components is complete. The mid biological shield will be removed from elevation 51'0" down to approximately 34'0" (see Figure 2-7). Some of these sections of concrete blocks will

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require additional sectioning to remove contamination on the sides nearest the reactor tank. This activity will take place in the Auxiliary Area after the blocks are removed from the containment building.

The center column containing the tank will be reduced as shown in Figure 2-8. These blocks of concrete and the portions of the tank contained within are contaminated, or contain activated materials. These sections are not economical to decontaminate or further volume reduce. Some of these sections will require special containers to shield higher levels of radioactivity. The containerization of this waste will take place inside the containment building. These containers will then be transferred out of the containment building by the transport system and moved to a temporary storage area on site or to a licensed disposal site.

Lower Internal Components

The lower internal components and the remainder of the mid biological shield will be removed as shown in Figures 2-9 and 2-10. Decontamination of a majority of the contaminated/activated internal components using existing technology is not feasible and they will therefore be containerized prior to leaving the containment building. The truck lock platform may need to be removed if the lower biological shield and sub-pile area are removed (see the following section). If it is necessary to remove the lower biological shield and sub-pile sections and, consequently, the truck lock platform, a new structural steel replacement platform may be required. If the biological shield below elevation 32'3" can be decontaminated without disassembly, the truck lock platform will remain.

Lower Biological Shield

Due to the levels of contamination in areas within the lower section of the biological shield, it may be necessary to remove the entire base as opposed to portions, or decontaminate in place. This is a decision that will require further consideration as the area is exposed during the decommissioning effort. Figure 2-11 illustrates the methods of removal of this section. The blocks of concrete will be staged and removed as previously discussed with the exception of the utilization of the newly constructed structural steel platform in the place of the removed truck lock platform. This approach will leave the lower level base elevation at approximately 19'. It will then be determined whether further reduction will be necessary. The remaining contaminated portions could be either cut away or decontaminated in place.

Option 3- One-Piece Reactor Tank Removal Through the Truck Lock

Option 3 involves removing the majority of the biological shield, and lifting and downending the entire reactor tank and internal components intact out of the containment building through the truck lock. Details of the rigging and lifting are provided in Section 2.2.3.1; a conceptual drawing is provided as Figure 2-4 sheets 4 of 6, 5 of 6, and 6 of 6.

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Option 3 requires the following actions for one-piece removal of the reactor tank and internal components:

- a) Remove portions of the biological shield;
- b) Fix internals inside the reactor tank;
- c) Apply shielding and cover penetration openings;
- d) Fix external contamination and prepare the tank for rigging;
- e) Lift the reactor tank and downend and remove from the containment building through the truck lock
- f) Prepare and ship the tank to a licensed disposal facility.

Remove Biological Shield

The biological shield will be cut from the tank, removed, and staged for final disposition in a safe and secure manner. With the biological shield removed, the reactor tank will be approximately 32 feet tall by 8 feet in diameter, and will weight approximately 80 tons.

Fix Internals Inside the Reactor Tank

The reactor piping exterior to the tank and the control rod drive mechanisms will be cut off and removed from the reactor tank. Covers will be positioned and welded to the cut/prepared reactor tank openings prior to removal from the containment building.

The reactor tank openings may be used for access to the reactor tank internals. Attachments may be made to the internals through the tank openings, the reactor head or the access plugs in the reactor head, to prevent movement of the internals during lifting, downending and shipment.

To minimize the movement of articles inserted into the reactor core structure and the radial reflector structures, an encapsulating material may be applied. This encapsulating material would be sprayed on, covering the internal structures in a manner which would preclude their movement during lifting, downending, and shipment. The encapsulating material employed for this operation will be substantially the same as materials used to coat and decontaminate other nuclear components, using a stripping technique, such as Master-Lee's Instacote® or IceSolv's TLC.

Apply Shielding and Cover Penetration Openings

Shielding may be applied, as needed, to reduce exposure rates during the removal process and to meet applicable DOT requirements during transportation. In addition, all open penetrations will be covered with adequate shielding and to secure the contents of the reactor tank.

Fix External Contamination and Prepare for Rigging

A paint or similar coating will be applied to the outside surface of the reactor tank to fix contamination in place. This paint/coating may be a high solids encapsulating

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paint/coating or other suitable fixative. (This application has been used in similar processes for steam generator component removal.) The paint/coating may be applied to the surfaces with minimal surface preparation.

Rigging and Lifting the Reactor Tank

After the tank has been prepared, a lifting attachment or lifting lugs will be secured to the reactor tank. A lifting device, such as a jacking tower, will be positioned inside containment above the reactor tank and the rigging attached to lifting attachment or lugs on the reactor tank. The lifting device, the lift rigging and the lifting attachments will be designed to lift the total calculated loads. Once the lifting arrangement has been attached to the reactor tank, the rigging slack will be taken up, and the load transferred to the lifting device. The reactor tank will then be detached from it's mounting and lifted in a safe and secure manner. The reactor tank will then be lowered and downended into the horizontal position and transported out of the containment building through the truck lock.

Prepare and Ship the Reactor Tank to a Disposal Facility

After the reactor tank has been removed from the containment building, it will be prepared for shipping. Any additional shielding required to meet applicable DOT requirements for shipment will be attached to the tank or added to the shipping cradle. The reactor tank will be enclosed in a protective barrier, such as a High Density PolyEthylene (HDPE) wrap and placed in the shipping cradle. Packaging, shipping, and transportation will comply with all applicable licensing and shipping regulations. Safety analyses and radiological surveys will be performed, and special permits will be obtained before shipping the tank to a licensed disposal facility, as required.

2.2.3 Decommissioning Methods

WTR Decommissioning involves removal and disposal of ~~the reactor tank internal contents, the reactor tank, and the biological shield~~ portions of the biological shield, ~~the reactor tank and the reactor tank internal contents~~. This includes the following activities:

1. Remove and dispose of material as radioactive waste
2. Remove, decontaminate as necessary, and release material for unrestricted use (this will generally involve disposal at a landfill or processing at a scrap/recycling facility)

Activities that may be undertaken to dismantle and decontaminate other areas within the containment building are described in Section 2.7, and will involve additional decontamination and removal processes. These areas will be left in place and transferred to the SNM-770 License.

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Each major equipment item and area will be evaluated to determine the best method(s) for removal, for decontamination, and to determine whether to decontaminate or dispose of as radioactive waste. Criteria to be used in the evaluations include: availability of a burial facility; the cost of decontamination versus the cost of burial; radiological and occupational hazards involved; and site operations in progress or planned.

Removal of structures, equipment and components can be achieved using proven mechanical/thermal cutting and demolition equipment. Mechanical methods such as diamond wire cutting, saw cutting, concrete scabbling, expandable grout, the use of jackhammers, and machining may be utilized. Thermal methods such as metal cutting, with an oxy-acetylene torch method may also be used.

2.2.3.1 Demolition and Component Removal

Decommissioning of TR-2 involves removal of the reactor tank, the biological shield, and the tank internals.

Methods used for the removal of concrete include jackhammers, expandable grout, concrete saws, and diamond wire saws. These methods are described as follows:

Jackhammer

Equipment can range in size from hand held units to large hoe rams mounted on tracked excavators. The concrete is degraded through constant pneumatic impact of a chisel pointed bit. This method works well but it is noisy and produces large quantities of dust and debris. Typically a containment tent is constructed over the area and supplemental roughing filter and HEPA filter ventilation is used to control airborne dust and radioactivity.

Hoe Ram

Where large areas of concrete require removal, it may be cost effective to decontaminate the concrete to acceptable levels by other means and then use large hoe rams to remove the concrete. Appropriate controls will be used to minimize the spread of airborne dust and radioactivity.

Expandable Grout

Expandable grout may be used for demolition of concrete structures or removal of predetermined layers of concrete from structures. Holes are systematically drilled into the concrete in preparation for the addition of the grout. The grout is then mixed with the appropriate quantity of water and poured into the pre-drilled holes. As the grout hardens, it expands and cracks the concrete apart.

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Concrete Saws

Concrete saws may be used for accurate cutting of concrete for general demolition and dismantlement. Also this method may be used to cut large slabs of concrete for waste volume reduction or packaging.

Diamond Wire Cutting

Diamond wire cutting techniques can be used to remove large segments of concrete. A diamond-studded cable is circulated by a hydraulic pulley drive system through the concrete, cutting through concrete, steel rebar and other steel members in the concrete. Hydraulic cylinders control the tension of the cable. Holes are drilled through the concrete to enable stringing the cable into cutting target areas that would otherwise be inaccessible. Water applied to cool and lubricate the cable also aids in control of airborne dust. A slurry collection system is installed to collect contaminated cutting slurry, decant the slurry and recycle the water.

Pipe Removal

Various reactor system pipes and sample loop piping will be removed as part of TR-2 decommissioning. Steel pipes are generally removed using mechanical or thermal cutting methods, such as hand-held band or reciprocating saws and oxy-acetylene cutting torch. Commercially available oxy-lance and plasma arc cutting methods may also be used. Plasma arc cutting equipment can be track-mounted and operated remotely, minimizing personnel exposure in high radiation areas. It also can cut underwater.

Rigging and Lifting

Plans will be developed for removing equipment and material from inside the containment building to a safe and secured area outside of the containment building. These plans will include the integration of equipment, methodology, and training of personnel to enhance total safety as much as practical. All rigging and lifting will be performed in accordance with industry standard safe practices and lifting equipment will be designed to comply with ANSI/ASME specifications.

The rigging and lifting method selected will depend upon whether the one-piece removal through the containment dome, or the multiple-piece reactor tank removal, or the one-piece removal through the truck lock method approach is selected.

-The first method, one piece removal method through the containment dome, involves a large capacity external crane to lift the reactor tank and large slabs of the biological shield through an opening cut in the containment building dome. The advantages of the one piece removal over a multiple piece removal, are that less cutting and packaging is required and worker exposures are reduced. However, this method involves greater rigging challenges and a hole has to be cut into the containment building.

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-The second method, multiple piece removal method through the truck lock, involves cutting the reactor tank and biological shield into pieces small enough to be handled by the existing interior polar crane. The advantages are lower waste volumes and ease of handling/packaging smaller pieces with the existing polar crane, and then moving them to the truck lock and out for packaging and shipment offsite. The disadvantage is that cutting the reactor tank may result in increased dose exposures and may not be ALARA.

The third method, one-piece removal through the truck lock, utilizes jacking and downending techniques commonly used to remove components in close quarters of the size and weight as that of the reactor tank. The advantages of less cutting and packaging, and lower exposures of Option 1 are again realized in addition to the advantages of maintaining the boundary of the containment building and avoiding a high heavy-lift scenario.

Radiological Control/Equipment Decontamination

Equipment will be checked for residual contamination before exiting designated restricted areas. Any equipment utilized within a designated restricted area will be decontaminated before removal from the work area. The restricted area will be demarcated by flagging, physical barricades or fencing as deemed appropriate.

Loading/Shipping

Loading of shipping containers and hauling equipment will be controlled to minimize contamination on external surfaces. Containers/loads will be secured/covered. Material designated for off-site disposal will be placed in packagings which meet DOT requirements, and staged in a secured area to prevent inadvertent removal from the site.

2.2.3.2 General Surface Decontamination Methods

The methods described below are typical, other processes and technologies may be used.

Strippable Coatings

Strippable coatings may be used to assist in the removal of loose radionuclides from large surface areas. Strippable coating is a simple, effective means of removing loose radionuclides or protecting areas that may possibly be contaminated during scheduled work activities. Once the surface is dry, the strippable coating serves as a barrier preventing radionuclides from reaching the surface below. If the barrier becomes contaminated, it can be stripped away, or the radionuclides can be sealed in place with a second layer and subsequently stripped away. Any method normally used to apply coatings (airless sprayers, paint rollers or brushes) may be used to apply strippable coatings.

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Vacuuming/Scrubbing/Wiping

These techniques are generally used when gross loose radionuclides are visible on the targeted surface(s). Vacuum operations use systems equipped with a HEPA filter. If a wet vacuum is required for liquid retrieval, the vacuum system also includes an automatic water shut-off system to prevent destruction of the HEPA filter when the unit is full. Scrubbing and wiping techniques are used where access is limited or can not be reached with a vacuum unit. It should be noted that vacuuming can be used on any type of surface but scrubbing/wiping are normally used on smooth, non-porous surfaces.

Pressurized Water

Pressurized water spraying may be used for general area decontamination or decontamination of items and components in a confined space. This method will only be utilized in areas where the spent water can be directed into a drain, sump or some other means of collection. The contaminated water will be treated and monitored to ensure compliance with discharge limits before discharge. Descriptions of pressure spray methods follow:

Low Pressure Spray (Power Wash)

Water is sprayed on the surface to be decontaminated with the objective of removing loosely adhered contamination. This technique is effective on coated surfaces that allow the contamination to be removed easily. Water pressure is generally in the 1,500 to 5,000 psi range with water consumption typically 3 to 6 gallons per minute.

High Pressure Spray (Hydrolaser)

A powerful stream of water is applied to the surface in a side to side, top to bottom fashion. This method is used on large surfaces and complex structures or equipment. This technique is effective on coated and uncoated contaminated surfaces. The water can be applied in various temperature ranges and the addition of chemical agents may increase the overall decontamination factor; chemical agents will be carefully selected to reduce the possibility of creating mixed wastes. High pressure sprays typically operate over a pressure range of 5,000 to 20,000 psi, with a water consumption rate of about 5 gallons per minute.

Ultra High Pressure

Ultra High Pressure water can be utilized in two ways. The first method is to direct a precise stream of water from a multi-jet rotating nozzle at the target surface. This method is capable of removing loose as well as fixed contamination from the surface. The second method utilizes a single nozzle that is capable of cutting material from the surface. Water consumption varies with

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nozzle selection: rates from 2 to 6 gallons per minute are typical with water pressure approaching 40,000 psi.

Steam Lance

Saturated steam is directed on the surface to be decontaminated. Crystalline materials can be solubilized and particulates removed using this technique. This method may be useful when the surface is sludge or oil coated.

2.2.3.3 Concrete Surface Removal Methods

Scabbling

When coating removal and/or surface removal is required, scabbling may be the preferred decontamination method. Scabblers remove the surface by impacting the area with air driven tungsten carbide tipped bits. Scabblers range from single-piston units suited for small constricted or isolated areas, to multi-piston units designed for operation in large open areas. Surface removal can vary from a light single pass removing 1/16 inch to multiple activities removing 1 inch or more. HEPA filter vacuum units will be attached to shrouds around the scabblers to control airborne radioactivity, where necessary.

Scarification

Scarification is the process of removing a surface layer of material from concrete floor slabs or similar surfaces. This equipment is generally utilized for projects where wide open floor areas are contaminated and require surface removal. A scarifier is a mechanically powered (electric, gas or propane) device that removes surface layers of material with a rotating drum equipped with tungsten carbide tipped cutters. When the unit is operated the bits are forced against the surface at a predetermined depth and lateral speed.

A HEPA filtered vacuum system operated in conjunction with a vacuum shroud attached to the scarifier is used in controlling airborne radioactivity during operation. Typical surface removal depths vary between 1/16 to 1/4 of an inch per pass.

Grinding

On a smaller scale, hand held grinders can also be used to remove surface coatings or concrete.

Needle Gun

A needle gun operates by pneumatically driving specially hardened needles into the surface being cleaned. The needle gun is designed to remove surface material from small areas or restricted spaces. The process takes place within a vacuum shroud, preventing the escape of dust, debris and airborne contamination. The vacuum shroud

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is connected to a HEPA filtered vacuum system that provides the negative pressure required.

Abrasive Blasting

Abrasive blasting is a preferred metal surface removal method, and is described below. However, it can also be effectively used for concrete surface removal. Blastrac (discussed in following section) is commonly used for decontamination of concrete floors.

2.2.3.4 Metal Surface Removal Methods

Abrasive Blast

Coating and/or surface removal can be achieved using an abrasive blast method. This technique is capable of removing loose and fixed contamination with a high production rate.

Abrasive blast techniques use non-hazardous abrasive material suspended in a medium (air or water) that is propelled against the targeted surface. The result is a fairly uniform removal of surface material. High production rates are common. Overhead and vertical surfaces can be decontaminated with relative ease. Depending on the equipment used and radionuclide levels encountered, the blasting medium may be reused.

Blasting media include sand, steel, aluminum oxide, walnut shells and plastic. Supplemental HEPA filter ventilation is used when necessary to control airborne dust and radioactivity.

Recycled Abrasive Blast (Blastrac)

Shot blasting is an airless method that strips, cleans, and prepares the surface for coating application. Surface removal can be achieved by selecting the proper shot size and residence time. The shot is propelled at the surface using a centrifugal blast wheel. As the wheel spins, the abrasive is hurled from the blades, blasting the surface with a barrage of media. The abrasive is continuously recycled using a vacuum system in conjunction with a separation system.

Supplemental HEPA filter ventilation is required to control airborne dust and radioactivity.

2.2.4 Decommissioning Schedule

The WTR Decommissioning Project is currently scheduled from February 1998 to 2003. The decommissioning project schedule assumes NRC approval of the

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Decommissioning Plan by January 1998. See Figure 2-12, entitled "WTR Decommissioning Schedule."

Changes to the schedule may be made at Westinghouse's discretion as a result of resource allocation, availability of a radioactive waste burial site, interference with ongoing Waltz Mill operations, ALARA considerations, further characterization measurements and/or temporary on-site radioactive waste storage operations.

2.3 DECOMMISSIONING WORK CONTROLS

Work controls will be established to ensure remediation work is safely performed in accordance with the Decommissioning Plan, Waltz Mill license requirements and established procedures.

A Project Management Plan (PMP) will be prepared that describes the approach and methods to be used to ensure the successful decommissioning of Waltz Mill facilities. The PMP will provide descriptions of the management philosophy, approach, and techniques to be used on the project. The system of work controls described above will be proceduralized in a Project Control Manual (PCM), which will include implementing procedures and supporting information for preparation of the Work Breakdown Structure, Work Specifications and Work Packages, in accordance with requirements of the Decommissioning Plan.

A General Work Specification will be developed to establish the basic requirements and provide the planning information for the performance of work activities. In addition to the General Work Specification, other Work Specifications may be prepared for activities that require special controls (e.g., water treatment).

Work Packages will be prepared based upon the Work Specifications and will contain the detailed instructions for accomplishing the defined tasks.

2.4 DECOMMISSIONING ORGANIZATION AND RESPONSIBILITIES:

The Decommissioning organization is integrated into the existing Westinghouse Waltz Mill facility organization and complies with the existing license and applicable regulatory requirements.

The direct responsibility for operational oversight of activities conducted under the TR-2 License and the Waltz Mill Site Radiation Protection Program rests with the Waltz Mill Site Manager (current title is Manager, Resources and Support Operations) who reports directly to the Division General Manager (current title is NSD General Manager). The Waltz Mill Site Manager will continue to have overall responsibility for the facility and the functional groups for: operations, engineering, industrial hygiene, safety, security, environmental compliance, facilities support, and radiation protection.

Reporting to the Waltz Mill Site Manager is the Radiation Protection Manager (current title is Industrial Hygiene, Safety and Environmental Compliance Manager) to whom the Radiation Safety Officer (RSO) reports. The RSO is responsible for the establishment and guidance of programs in radiation protection. The RSO also evaluates potential and/or actual radiation exposures, establishes appropriate control measures, approves written procedures, and ensures compliance with pertinent policies and regulations. Under the RSO's direction, health physics personnel administer the established site policy, collect samples, perform analyses, take measurements, maintain records, and generally assist in performing the technical aspects of the radiation protection program. The health physics staff reports directly to the RSO. The RSO will be supported by adequate staff, facilities and equipment and will hold a position within the organizational structure providing direct access to senior management.

The Remediation Team Program Manager reports to the Waltz Mill Site Manager. The Remediation Team Program Manager will coordinate the elements of the functional groups of the Waltz Mill decommissioning organization, Remediation Team, and decommissioning contractors, as it applies to decommissioning activities. The Remediation Team reports to the Remediation Team Program Manager.

The existing Radiation Safety Committee required under the SNM-770 License will monitor decommissioning operations to ensure they are being performed safely and according to federal, state, and local regulatory requirements (NRC, EPA, PADEP, DOT, etc.). Members of this committee are appointed by the Division General Manager. The Radiation Safety Committee will review major decommissioning activities dealing with radioactive material and radiological controls. In addition, the Radiation Safety Committee will review and approve changes to the Decommissioning Plan that do not require prior NRC approval.

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The number and titles of key functions/positions shown on Figure 2-13 may be modified during the course of the decommissioning project. However, the following key functions/positions will not be eliminated while decommissioning activities are in progress, without prior NRC approval:

- Waltz Mill Site Manager
- Radiation Safety Officer
- Remediation Team Program Manager
- Radiation Safety Committee

2.4.1 Procedures

Decommissioning activities will be performed in accordance with written procedures and guidelines. Procedures will be controlled, prepared, reviewed, revised, approved, and implemented to ensure that operations are performed in a safe manner.

2.5 CONTRACTOR ASSISTANCE

Westinghouse management has selected a team of qualified contractors to perform the WTR Decommissioning project. The team consists of Westinghouse-Nuclear Services Division (NSD), Morrison-Knudsen, and GTS-Duratek (formerly SEG). Westinghouse-NSD will be in charge of the overall project management and engineering; Morrison-Knudsen will manage the craft laborers who will do the physical work; and GTS-Duratek is responsible for Health Physics support, radiation surveys, and waste packaging, processing, and shipping. Other contractors may be added to the team as-needed throughout the project.

Contractors and subcontractors performing work under this Decommissioning Plan will be required to comply with the applicable Waltz Mill site policies and procedures.

2.6 TRAINING PROGRAM

Individuals (employees, contractors, and visitors) who require access to the work areas or a radiologically restricted area will receive training commensurate with the potential hazards to which they may be exposed.

Radiation protection training will be provided to personnel who will be performing remediation work in radiological areas or handling radioactive materials. The training will ensure that decommissioning project personnel have sufficient knowledge to perform work activities in accordance with the requirements of the radiation protection program and accomplish ALARA goals and objectives. The principle objective of the training program is to ensure that personnel understand the responsibilities and the required techniques for safe handling of radioactive materials and for minimizing exposure to radiation.

Records of training will be maintained which include trainees name, date of training, type of training, test results, authorization for protective equipment use, and instructor's name. Radiation protection training will provide the necessary information for workers to implement sound radiation protection practices. The following are examples of the training programs applicable to remediation activities.

2.6.1 General Site Training

A general training program designed to provide orientation to project personnel and meet the requirements of 10 CFR 19 will be implemented. General Site Training (GST) will be required for all personnel assigned on a regular basis to the decommissioning project. This training will include:

- Project orientation/access control
- Introduction to radiation protection
- Quality assurance
- Industrial safety
- Emergency procedures

2.6.2 Radiation Worker Training

Radiation Worker Training (RWT) will be required for decommissioning project personnel working in restricted areas and will be commensurate with the duties and responsibilities being performed. Personnel completing RWT will be required to pass a written examination on the material presented. Completion of this training will qualify an individual for unescorted access to radiologically controlled areas. RWT will include the following topics:

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Fundamentals of radiation

Biological effects of radiation

External radiation exposure limits and controls

Internal radiation exposure limits and controls

Contamination limits and controls

Management and control of radioactive waste, including waste minimization practices

Response to emergencies

Worker rights and responsibilities

In addition to a presentation of the topics identified above, participants in RWT will be required to participate in the following demonstrations:

The proper procedures for donning and removing a complete set of protective clothing (excluding respiratory protection equipment)

The ability to read and interpret self-reading and/or electronic dosimeters

The proper procedures for entering and exiting a contaminated area, including use of proper frisking techniques

An understanding of the use of a Radiation Work Permit (RWP) by working within the requirements of a given RWP

Personnel who have documented equivalent RWT from another site may be waived from taking training except for training on Waltz Mill administrative limits and emergency response, and will be required to pass the written examination and demonstration exercises.

2.6.3 Respiratory Protection Training

Individuals whose work assignments require the use of respiratory protection devices will receive respiratory protection training in the devices and techniques that they will be required to use. The training program will comply with the requirements of 10 CFR 20 Subpart H, Regulatory Guide 8.15 (Ref. 2), NUREG-0041 (Ref. 3) and 29 CFR 1910.134. Training will consist of a lecture session and a simulated work session. Personnel who have documented equivalent respiratory protection training may be waived from this training.

2.7 OPTIONAL DECONTAMINATION AND DISMANTLEMENT ACTIVITIES WITHIN THE WTR CONTAINMENT BUILDING

In addition to removal of the reactor tank internal contents, the reactor tank, and the biological shield, decontamination and dismantlement activities may be performed in other areas within the WTR containment building. These activities are not required for TR-2 decommissioning; however, they may be performed prior to transfer of remaining residual radioactivity to the SNM-770 License.

The decontamination techniques and methods described in Sections 2.2.3.2 through 2.2.3.4, and the dismantlement techniques described in Section 2.2.3.1 may be used to decontaminate and dismantle equipment and structures in these areas.

These optional activities are discussed as follows:

2.7.1 Sub-pile Room

General

The sub-pile room is a 15' x 15' room located below the reactor tank. This room has a ¼-inch steel liner on all four walls covering the concrete biological shield. The floor is uncoated concrete. The WTR canal runs through the sub-pile room (north-south), separating the room into two areas (east and west). The two doors to the sub-pile room consist of a steel liner filled with 12 inches of poured lead. One permits access to the east side of the canal and the other to the west side. The WTR fuel chute is accessible in the northeast corner of the room through a shielded opening in the fuel chute pipe chase. The sub-pile room contains primary system piping, rabbit tubes, test loop piping and instrumentation piping.

Internal Equipment

The sub-pile room will be cleaned and all remaining piping will be dismantled and/or cut-out in disposable sized sections and removed.

Floor and Walls

Following removal of remaining loose debris, the area will be re-surveyed for loose and fixed radioactive contamination to determine the appropriate floor, wall and ceiling surface decontamination method. Destructive methods such as scabbling, full or partial demolition may be performed. If scabbling equipment incorporates a self-contained ventilation and filtration system (HEPA), additional containment of the work area may not be required. Demolition of the intact structure may be performed with the demolition of the biological shield.

2.7.2 Rabbit Pump Room

General

The Rabbit Pump Room measures approximately 6'6" by 10'0" by 7'6" high and is located on the operating floor along the north wall of the containment building. The Rabbit Pump Room contains pumps and valves that delivered the rabbits (test material samples) in a container, to the reactor core via the rabbit tubes.

Internal Equipment

Decommissioning activities within the Rabbit Pump Room consist of the dismantling and removal of the pumps, valves, piping and control assemblies. To control airborne radioactive contamination, the Rabbit Pump Room may be contained and fitted with a HEPA filtration system capable of creating a negative pressure within the room during equipment removal operations.

Floor, Walls and Ceiling

Following removal of remaining loose debris, the area will be re-surveyed for loose and fixed radioactive contamination to determine the appropriate floor, wall and ceiling surface decontamination method. Destructive methods such as scabbling, full or partial demolition may be performed. If scabbling equipment incorporates a self contained ventilation and filtration system (HEPA), additional containment of the work area may not be required. Demolition of the intact structure may be performed with the demolition of the biological shield.

2.7.3 Test Loop Cubicles

General

Three test loop cubicles are located along the west side of the reactor tank adjacent to the reactor biological shield. Each cubicle is constructed of concrete of varying dimensions and all cubicles are currently vacant.

Floors, Walls and Ceilings

Fixed and transferable contamination is found on the cubicle floors and fixed contamination on the walls and ceilings of the cubicle. Following removal of loose debris, destructive methods such as scabbling, full or partial demolition may be performed. Additional containment may not be necessary if equipment utilizes self contained filtration and ventilation.

Demolition of the intact cubicle structures may be performed with the demolition of the biological shield

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2.7.4 Test Loop Dump Tank Pits

General

Two 8'0" by 9'0" by 13'0" high Test Loop Dump Tank Pits are located below the operating floor on the east and west side of the transfer canal below the reactor tank. The west tank pit contains three steel tanks approximately 12' tall and 4' in diameter. The east pit is flooded with water and the pit interior currently inaccessible.

Tank (and Pit) Water Removal

The water in the flooded east pit will be pumped out and routed to either the site radioactive water processing facility or treated with a portable system. Once the water in the pit has been removed, the floors, walls, tanks, and tank internals will be surveyed for fixed and transferable contamination.

Any remaining water in the tanks located in the east and west pits will be pumped out to either the site radioactive water processing facility or treated using a portable system.

All liquids removed and treated from both tanks and the flooded pits will be sampled and analyzed for determination of the proper disposal mechanism.

Tank Demolition

Following removal of the water within the tanks, the tanks will be removed from the pits intact, decontaminated and cut into appropriately sized dimensions for packaging and disposal. The tanks may also be shipped off-site intact following decontamination should a satisfactory salvage opportunity be identified, or shipped off-site intact to a licensed waste processor.

Pit Areas

Fixed and transferable radioactive contamination has been found on the floor and walls (and exposed area of the concrete shield plugs) and is also anticipated to be found on the surfaces of the flooded pit once the water has been removed. Destructive methods such as scabbling, full or partial demolition may be performed. The pits may be left in place.

Duct Decontamination and/or Removal

Supply and exhaust air ducts may be decontaminated in place or removed, decontaminated and released. If warranted by radiological conditions, a temporary HEPA filtration system may be attached to the ventilation ducts to ensure that any loose contamination is drawn away from workers during these operations. Contaminated ducts which can not be decontaminated efficiently and economically may be removed,

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) cut and sized for packaging and disposal. Resulting penetrations through the containment building will be sealed.

2.7.5 Utilities

General

Prior to removing electrical, service water, service air, fire or HVAC systems, each system will be inspected by a qualified individual. All efforts will be made to review the existing status of the respective utilities with Westinghouse service personnel who have a working knowledge of the utilities to prevent service disruption to other site facilities. Emergency utilities, such as fire alarm systems, will be maintained; as required.

Utility Removal

Initially, electrical systems will be disconnected. Piping systems will then be removed in areas where electrical systems have been disconnected/removed. Reactor and containment building utilities can be removed simultaneously. As lines are disconnected, provisions will allow the collection of any remaining fluid.

Characterization results indicate the presence of fixed and transferable contamination on some portions of electrical wiring, conduit, cable trays, electrical boxes and piping. As the utility systems are removed, contaminated piping, conduit, cables, etc., will be separated from non-contaminated systems. Fluids collected from piping systems will be sampled and analyzed for determination of the proper disposal method.

It is expected that dry and/or wet wiping techniques will be sufficient to decontaminate those portions of the materials initially found contaminated. Contaminated materials which can not be successfully decontaminated for unrestricted release or if decontamination is not feasible or cost effective can be volume reduced to the maximum extent practicable and packaged for disposal. Clean material will be disposed of at a local landfill or recycled, if appropriate.

2.7.6 Primary Coolant Pipe Tunnels

General

The primary coolant pipe tunnels surround the north end of the transfer canal along the east and west sides of the reactor tank below the operating floor. Each tunnel measures approximately 5'0" wide by 10'0" high by 39'0" long and merge into a common tunnel at the north side of the containment building. The tunnel continues below grade to the northeast to the Facilities Operations Building. The pipe tunnels contain the primary coolant circulation supply and return lines, demineralizer, emergency coolant and various other piping systems.

Pipe Removal

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Initial work in the pipe tunnels consists of installing temporary lighting and a HEPA filtration system. Identification and tagging of all piping systems will be performed prior to any pipe removal. Any water contained within the tunnels will be pumped out to either the Waltz Mill radioactive water processing facility or treated using a portable system. The piping components identified as contaminated will be dismantled and/or cut into disposal dimensions or separated for decontamination. Pipe ends should be wrapped as they are dismantled/cut. The processed or treated liquids will be sampled and analyzed to determine the proper disposal mechanism.

Tunnel Floors, Walls and Ceilings

Following removal of all contaminated piping systems, the pipe tunnels floor, wall and ceiling concrete surfaces will be surveyed to determine the extent of contamination. Following removal of loose debris, radiological conditions will determine the appropriate floor, wall and ceiling surface decontamination method for the tunnels. Destructive methods such as scabbling, full or partial demolition may be performed. The tunnels may be left in place.

2.7.7 Transfer Canal

General

The transfer canal is approximately 19 feet deep, varies in width from 7 feet to 10 feet and is approximately 160 feet long north-south down the axis of the reactor. The canal begins north of the biological shield and continues beneath the reactor tank to the south, through the G building Annex, ending beneath the Hot Cell area. The transfer canal was the means of transporting spent fuel rods from the reactor tank to the Annex Building and irradiated test specimens to the Hot Cell area (see Figure 2-14). The fuel rod conveyor, storage racks, thimble loading machine, transfer chute, rabbit tubes, piping and pipe supports were left in the canal following the 1962 shut down. All irradiated material was removed and properly dispositioned.

Exterior Equipment and Materials

The initial phase of canal remediation will require removal of exterior appurtenances above the canal (between the 15' and 19' elevations). This may include removal and decontamination of the drive mechanisms, platforms and existing wire mesh and foam covers.

Sediment Removal

The transfer canal has sediment attached to the walls, floor and structural debris system, in addition, the concrete sealant is peeling off. This sediment is generally contaminated and in some locations highly contaminated. A filter system will be designed to remove, safely contain the sediment, and shield workers prior to or during lowering the water. Figure 2-15 illustrates one of many ways to accomplish the removal of sediment.

Canal Water Removal and Interior Wall Surfaces

The existing water within the canal will be pumped through a water filtration system to remove fine particles suspended in water. After the water is cleared of solids, the existing or a supplemental liquid radioactive waste treatment system will be utilized to treat the canal water. The water level can be lowered in stages and the walls cleaned, as required, from a platform suspended from the canal walls at elevation 19', Figure 2-16. This method will not allow large portions of contaminated surfaces to be exposed above the water level. As water is removed from the canal, the radiological conditions within the canal will be monitored. Appropriate precautions will be taken to prevent or minimize the potential for airborne radioactive contamination. This may include containment and HEPA filtration, maintaining contaminated surfaces wet, or both. Destructive methods, such as scabbling, may be required to remove the fixed contamination on the walls.

2.7.8 Containment Building

The WTR was a low pressure, low temperature, water cooled 60 MWt reactor housed in a cylindrical vapor containment building. There are two airlocks, and a large overhead door that provides access from the truck lock to the WTR. A schematic of the WTR is shown on Figure 2-1.

The reactor core support structure is 29 feet in diameter and 36 feet tall, which houses the reactor pressure tank. The biological shield surrounding the reactor tank is made of magnetite bearing concrete, is a total of 44 feet in height and is up to eight feet thick from the 32 to 51 foot elevations. The operating floor is on the 16 foot elevation and is constructed of concrete. The containment is 90 feet in diameter, with a total floor area of 5000 square feet. There are four support platforms: the truck lock, the reactor head stand, reactor head, and the beam port platforms. As part of the materials testing that was included in the WTR's operational charter, there were several controlled environment test loops installed in concrete cubicles and in an underground test loop vault. Since the shut down most of these loops have been removed.

The containment building also houses the rabbit pump room, polar crane, and other support systems such as: piping, electrical conduit and boxes, plant and instrument air lines, hydraulic lines, steam and condensate lines, and ventilation ductwork.

Decontamination of the interior of the structure will be conducted only after all other major components have been removed or addressed. Decontamination of the structure will use non-destructive methods if it is to be left in place. If the structure will be removed completely, then it will be shipped to a licensed scrap metal processing facility according to their license requirements. All remaining piping, platforms, and ductwork will be dismantled and either cleaned, and free released, or sent off site to a

CHOICE OF DECOMMISSIONING METHOD AND DESCRIPTION OF ACTIVITIES

**Table 2-1
WTR FACILITIES, DECOMMISSIONING ACTIVITIES AND
ESTIMATED WORKER EXPOSURE**

WTR FACILITY AREA	PROPOSED DECOMMISSIONING ACTIVITIES	ESTIMATED EXPOSURE (Person-rem)
Pre-decommissioning Activities	Establish radiological controls.	0.05
Reactor Tank, Internal Contents, and Biological Shield ⁽¹⁾	Remove internal contents. Use a diamond wire saw to section the biological shield into slabs and section reactor tank. (Option 2)	26.14
Sub-pile Room ⁽²⁾	Components removed, concrete decontamination, and partial or full demolition.	0.85
Rabbit Pump Room ⁽²⁾	Components removed, concrete decontamination, and partial or full demolition.	0.08
Test Loop Cubicles ⁽²⁾	Components removed, concrete decontamination, and partial or full demolition.	10.13
Test Loop Dump Tank Pits ⁽²⁾	Components removed, concrete decontamination, and partial or full demolition.	0.28
Primary Coolant Pipe Tunnel ⁽²⁾	Piping removed, concrete decontamination, and partial or full demolition.	1.88
Transfer Canal ⁽²⁾	Water drained, sediment removed, concrete decontaminated, and partial or full demolition.	7.93
Vapor Containment Building and Misc. Systems and Components ⁽²⁾	Miscellaneous systems and components decontaminated and/or removed, concrete and structure surfaces decontaminated, and polar crane decontaminated.	0.89
	TOTAL	38.23

⁽¹⁾ The total exposure estimate for the one piece reactor tank removal, internal component removal, and biological shield sectioning and removal (Option 1) is 18.25 person-rem.

⁽²⁾ Decommissioning of these and other structures may be undertaken as part of the WTR Decommissioning project, and will be completed in conjunction with remediation of SNM-770 facilities.

CHOICE OF DECOMMISSIONING METHOD AND DESCRIPTION OF ACTIVITIES

(1) See Table 2-1(a) for complete list of miscellaneous systems and components.

CHOICE OF DECOMMISSIONING METHOD AND DESCRIPTION OF ACTIVITIES.

TABLE 2-1(A)

**LIST OF TR-2 MISCELLANEOUS SYSTEM AND
COMPONENTS CONSIDERED**

Transfer Building Pool
HVAC Ducts (2)
Experimental Cooling Water
LLRW Liquid Drain
Process Vent
Electrical Cond & Boxes
Plant & Instrument Air
Dionized Water
Steam & Condensate Lines
Polar Crane
Containment Building
Final Surveys
Operating Floor 16' Elev
Truck Lock Platform
Beam Port Platform
WTR Head Stand Platform
WTR Head Platform

FIGURE 2-4

(Sheet 4 of 6)

ONE PIECE REMOVAL THROUGH THE TRUCK LOCK
LIFTING ASSEMBLY INSIDE CONTAINMENT

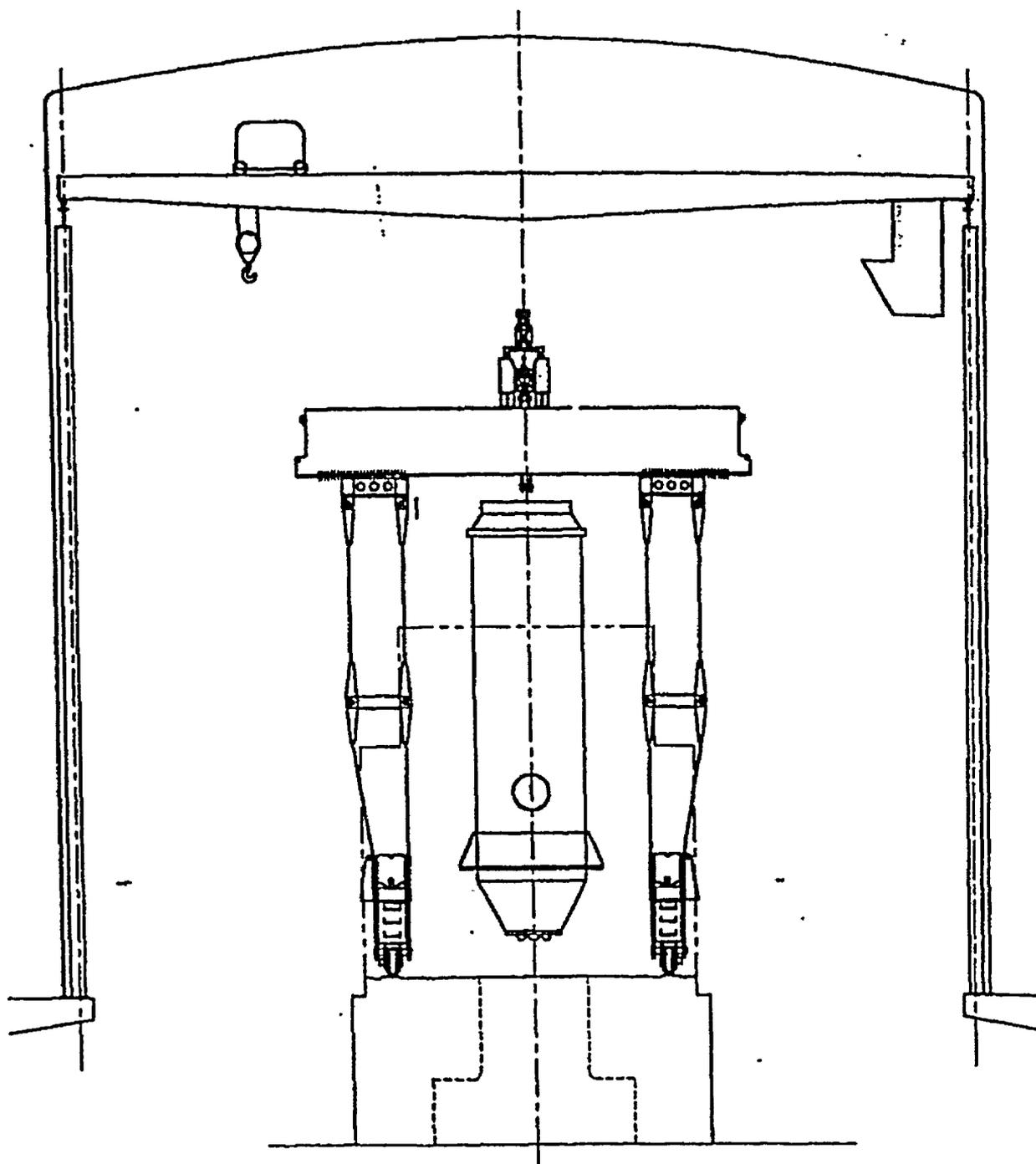


FIGURE 2-4

(Sheet 5 of 6)

**ONE PIECE REMOVAL THROUGH THE TRUCK LOCK
DOWNEND TEACTOR TANK TO HORIZONTAL POSITION.**

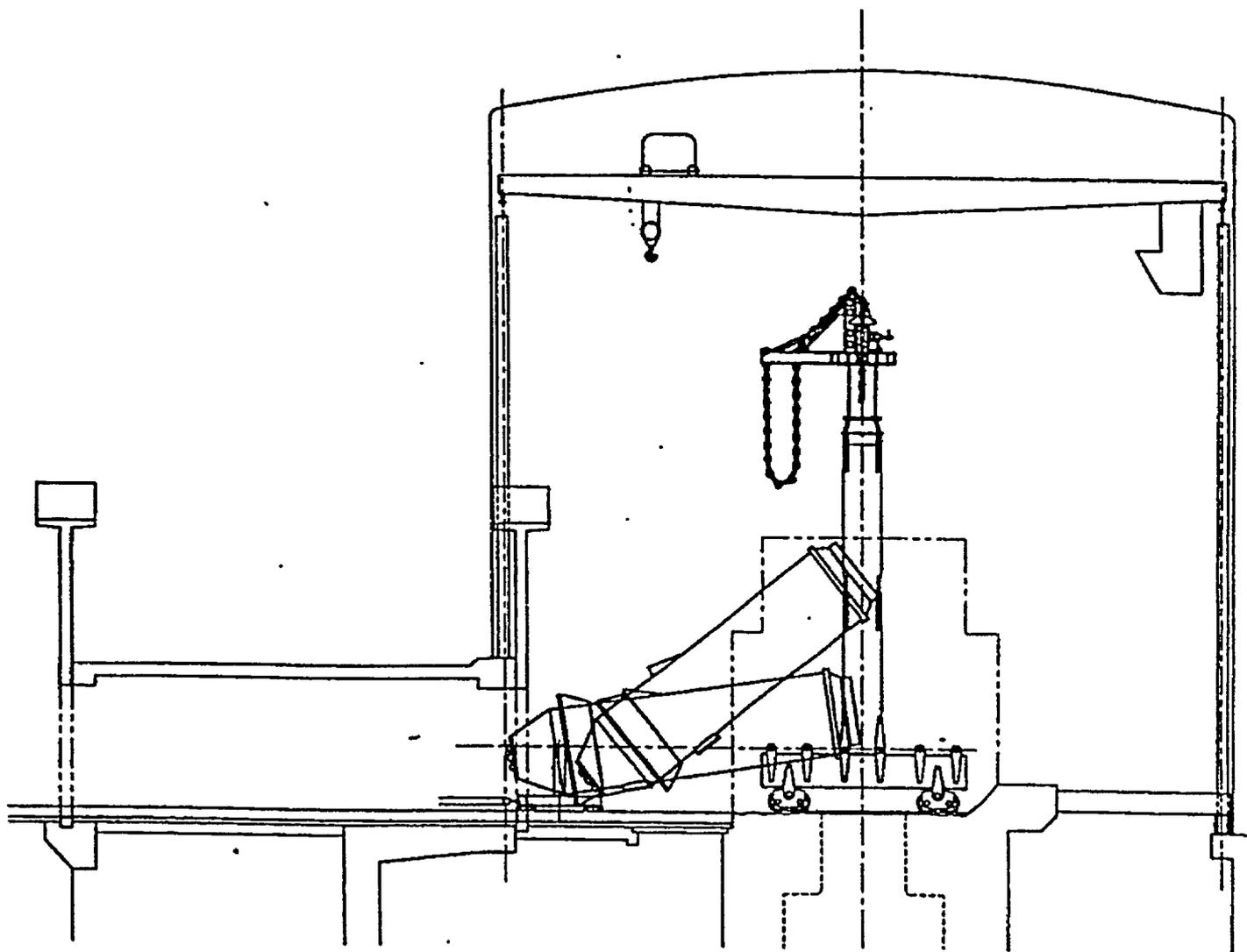
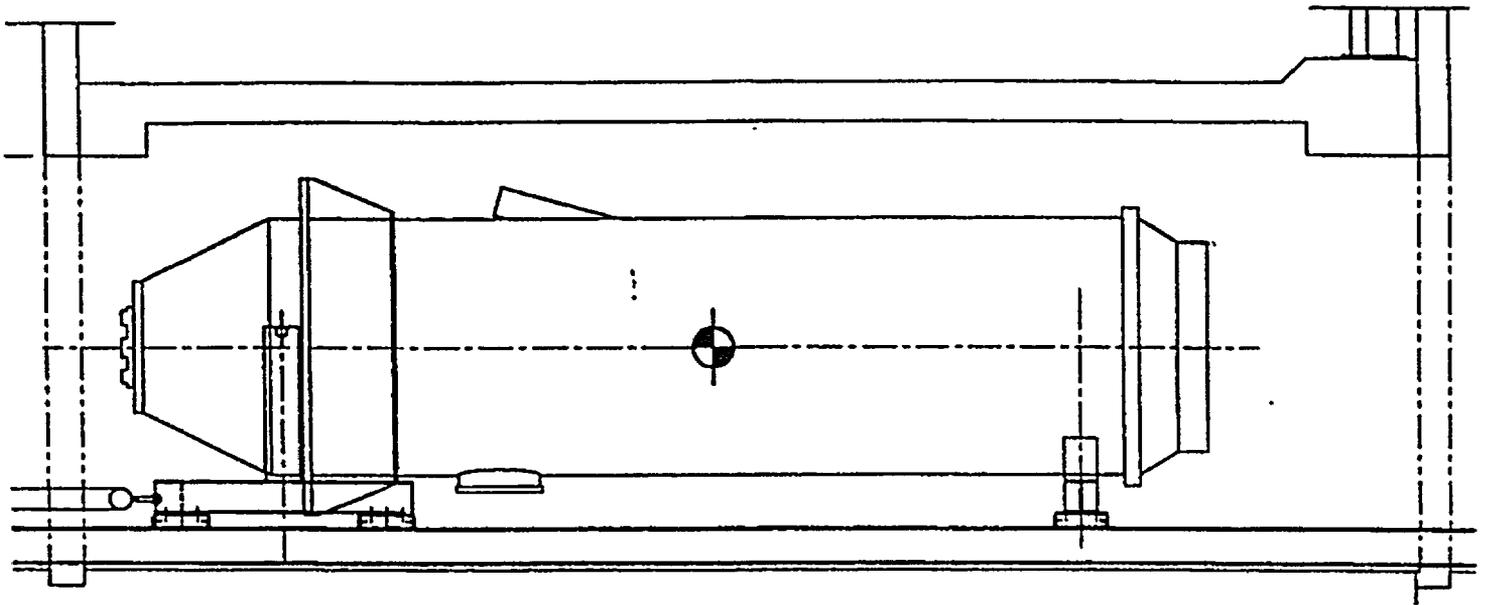


FIGURE 2-4
(Sheet 6 of 6)

ONE PIECE REMOVAL THROUGH THE TRUCK LOCK



WALTZ MILL
05009336
DECOMMISSIONING
PROJECT

Procedure: WM-DT-6.2
Title: Decommissioning Licensing Evaluation
Effective Date: November 1998
Revised Date: Rev. 0

WALTZ MILL DECOMMISSIONING PROJECT
LICENSING SCREENING CRITERIA

TITLE: Decommissioning Licensing Evaluation Screening Checklist

Document No.: TR-2 Decommissioning Plan Revision Revision No. 1

Document Title: Revision 1 of Sections 2.1 and 2.2 of the WTR TR-2 Final
Decommissioning Plan

Initiating Department/Company W Reviewer R Sisk

Description of Changes: The purpose of this revision to the Decommissioning Plan is include a third option for removing the reactor tank. Specifically, section 2.1 and 2.2 of the Decommissioning Plan is being revised to incorporates a single piece removal of the vessel through the truck lock as an option.

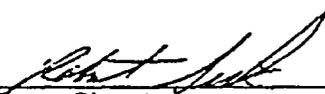
Screening Criteria to determine need for a Decommissioning Licensing Evaluation:

- 1. Yes No Does the activity involve a change in the decommissioning activities or methods described in the Decommissioning Plan?
- 2. Yes No Does the activity involve an activity that could result in decommissioning operations not described in the Decommissioning Plan which could have an adverse effect on radiological safety?
- 3. Yes No Does the activity involve a change to an accident analysis assumption described in Section 3.4 of the Decommissioning Plan?
- 4. Yes No Does the activity involve a change to the TR-2 or SNM-770 License, including the NRC approved TR-2 Technical Specifications?

Any "YES" answer above requires a Decommissioning Licensing Evaluation to be performed. A change to the TR-2 License or SNM-770 License requires NRC approval via a license amendment.

Provide the logic for any answer if the logic is not obvious. Required to support activities described in WTR decommissioning plan. This activity is allowed by the decommissioning plan and the accident analyses conducted in support of the WTR decommissioning.

Based on the above criteria, I have determined that a Decommissioning Licensing Evaluation is is not required.


Reviewer Signature Date Sept 1, 1999