



## CBS Corporation

Richard K. Smith  
Vice President - Environmental Remediation  
11 Stanwix Street, Room 370  
Pittsburgh, PA 15222

Phone: 412-642-3285  
Fax: 412-642-3957  
E-mail: Richard.Smith@cbs.com

July 12, 2006

U.S. Nuclear Regulatory Commission Region I  
Division of Nuclear Materials Safety  
475 Allendale Road  
King of Prussia, Pennsylvania 19406-1415

Subject: Application for Order Regarding NRC License No. SNM-770, NRC  
Docket No. 070-00698 or, in the Alternative, for an Amendment to  
SNM-770

### References:

1. Charles W. Emeigh, USNRC, letter to A. Joseph Nardi, dated March 10, 1999
2. Mark J. Wetterhahn letter (on behalf of Westinghouse Electric Company LLC) to Patrick J. Isaac, USNRC, dated February 18, 2004
3. Martin G. Malsch letter (on behalf of Viacom, Inc.) to John Cordes, Solicitor, USNRC, dated December 3, 2004
4. John Cordes, Solicitor, USNRC, letter to Richard G. Murphy, Jr. Mark J. Wetterhahn, Martin G. Malsch, and Michael F. McBride, dated March 17, 2006

CBS Corp. ("CBS") (formerly Viacom Inc.) and its corporate predecessors were the original holders of NRC license SNM-770, which authorizes various activities at the Waltz Mill Site in western Pennsylvania. CBS currently shares responsibility with Westinghouse Electric Company LLC ("Westinghouse"), the current holder of SNM-770, for the partial remediation of various "retired facilities and areas" on the Waltz Mill Site within the scope of Westinghouse's SNM-770 license. CBS also holds the TR-2 license for the former Westinghouse Test Reactor ("WTR") on the Waltz Mill Site, owns the Site itself, and provides a substantial portion of the decommissioning financial assurance required under the SNM-770 license.

Now that the pressure vessel, vessel internals, and part of the biological shield have been removed in accordance with the TR-2 Final Decommission Plan (see NRC's March 17, 2006 letter, Reference 4), the further partial remediation of the WTR is governed by paragraph (a) of a June 19, 1998 letter, which is also incorporated into the SNM-770 license along with the SNM-770 Remediation Plan ("Plan"), and is quoted in NRC's March 17, 2006 letter (Reference 4). The partial remediation of the retired facilities and areas under SNM-770 is governed generally by the Plan, and the partial remediation of buildings within the scope of the Plan is currently

governed specifically by paragraph (a) of this same June 19, 1998 letter.<sup>1</sup> CBS's responsibility for the partial remediation of these retired facilities under SNM-770 is reflected in an Asset Purchase Agreement with Westinghouse's parent company. The NRC recognized CBS's role under this Asset Purchase Agreement when approved of the transfer of SNM-770 to Westinghouse in 1999. See Charles W. Emeigh, USNRC, letter to A. Joseph Nardi, dated March 10, 1999 (Reference 1).

CBS has spent over \$90 million in remedial activities at the Waltz Mill Site under the Plan and TR-2 Final Decommissioning Plan, while Westinghouse has spent little or nothing. However, CBS and Westinghouse disagreed over how the TR-2 Final Decommissioning Plan and the June 19, 1998 letter should be interpreted, and this resulted in a delay in completing the decommissioning and remediation. In its December 3, 2004 letter (Reference 3), CBS presented facts and arguments in support of its interpretation of the Plan and letter, and also indicated that it would apply to amend the June 19, 1998 criteria if the NRC disagreed with CBS's interpretation of them. December 3, 2004 letter at pg. 5, note 21. These interpretation questions are now resolved; the NRC has now agreed with CBS's interpretation of the TR-2 Final Decommissioning Plan but disagreed with CBS's interpretation of the letter. NRC has now clarified that, as written, the numerical remediation criteria for building surface contamination in the June 19, 1998 letter (based on Table I of NRC Reg. Guide 1.86) are not subject to any exception based on the ALARA principle or limitations in either the TR-2 Final Decommissioning Plan or the related SNM-770 Remediation Plan. Accordingly CBS, as the TR-2 licensee, has separately submitted an application to the NRC to amend the criteria in the June 19, 1998 letter, as incorporated into the TR-2 Final Decommissioning Plan. A copy of this application is enclosed for your information.

The circumstance where two licensees have complementary responsibilities for the same buildings and areas on the same site is unique in NRC practice. CBS is currently obligated to implement the June 19, 1998 letter as it applies both to buildings within its purview as TR-2 licensee, and to buildings within the purview of the SNM-770 license held by Westinghouse.

CBS is therefore in the unique situation of being affected directly by criteria that are found in a license held by someone else (Westinghouse), and CBS would clearly have standing in any proceeding involving the remediation criteria incorporated into SNM-770. Moreover, if the NRC granted CBS's application to amend the June 19, 1998 letter (as incorporated into the TR-2 Final Decommissioning Plan) in favor of more risk-informed remediation criteria for the WTR, it

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<sup>1</sup> Paragraph (a) of the June 19, 1998 letter applies to buildings "which may be used for future use under the license." Both the TR-2 Final Decommissioning Plan and the SNM-770 Remediation Plan are premised on continued licenses use. This is clear not only from the plans themselves (see for example page 2-1 of the SNM-770 Remediation Plan), but also from the record of extensive interchanges between the licensee and NRC. See, for example, A. Joseph Nardi's statement to the NRC on January 22, 1999 that "The same way with buildings. We were saying that we would remediate them to a continuation - to a licensed use so that we could continue to use them under the license. . . . we weren't going to take it unrestricted use, that internally we could make decisions that would lead us toward extensive contamination or more extensive effort. But that would be our decision."

would be illogical to enforce the original June 19, 1998 criteria for the retired facilities on the same site. Granting the requested amendment to the TR-2 Final Decommissioning Plan would suggest logically that the June 19, 1998 letter should be modified as applied to the retired facilities as well. However, the NRC's regulations do not anticipate that someone other than the licensee could apply to amend a license, so a CBS application to amend Westinghouse's license would be very unusual.

CBS believes that a practical solution exists that would not entail an unusual CBS application to amend Westinghouse's license, but would still recognize CBS's unique situation and standing in regard to the June 19, 1998 letter, and promote consistency in remediation across the Waltz Mill Site. The law (5 U.S.C. § 554(e)) allows an agency like NRC to issue an order that does not need to take the form of a license amendment when this would remove uncertainty and resolve issues. Accordingly, CBS requests the following. If the NRC grants (in whole or in part) CBS's application to amend its TR-2 Final Decommissioning Plan, then the NRC should also issue a declaratory order in this docket (NRC Docket No.070-00698) which states simply that the revised building remediation criteria in Section 1.2 of the TR-2 Final Decommissioning Plan, Rev. 2, are applicable to the retired facilities covered by the SNM-770 license and Plan as well, to the limited extent of defining the outer limits of CBS's remediation responsibilities, to the extent such responsibilities may exist. As the SNM-770 licensee, Westinghouse would still be bound by the June 19, 1998 letter as written. If Westinghouse wished to take advantage of any changes to the June 19, 1998 letter, it would be a simple matter for it to use the order to support its application to amend the SNM-770 license.

CBS believes that what it is asking is lawful, reasonable, and required under the circumstances. NRC's March 17, 2006 letter (Reference 4) clarifies for CBS how the June 19, 1998 letter must be interpreted. But the March 17, 2006 letter does not address one important question posed by CBS to the NRC (December 3, 2004 letter to NRC, Reference 3): whether the criteria in the June 19, 1998 letter can be changed consistent with NRC's regulations and public health and safety. This is important because, unless it is resolved, CBS is in the untenable position of being obligated to engage in remediation that, in the final analysis, may not be necessary under the Atomic Energy Act. Moreover, the purpose of the Plan is to facilitate possible licensed use of the buildings, consistent with other licensed activities on the Site. Yet, as things now stand, the retired buildings surfaces must be remediated to arbitrary pre-fixed contamination limits, based on instrument detection capabilities in the mid-1970s, regardless of dose or ALARA considerations, while other operational (restricted) areas on the Site are subject only to an ALARA-based standard with no pre-fixed acceptable levels for fixed contamination.

If the NRC chooses not to issue the requested order, CBS respectfully requests that this letter be treated as an application to amend the June 19, 1998 criteria as incorporated in the SNM-770 license, to the limited extent that such criteria define the outer limits of CBS's remediation responsibilities, to the extent such responsibilities exist. If necessary, CBS requests an exemption under 10 C.F.R. §30.11 from the requirements of 10 C.F.R. §30.38 so that it may file such an application. The application would be as follows.

CBS proposes to modify the criteria for remediation of buildings in paragraph (a) of the Attachment to the June 19, 1998 letter, as applied to the retired facilities covered by the SNM-770 Remediation Plan, by (1) deleting “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” and (2) substituting “Structures (buildings) will be decontaminated so that the residual radioactivity has been reduced to levels that are as low as reasonably achievable (“ALARA”). In addition, estimated (modeled) doses within buildings will not exceed 25 mrem total effective dose equivalent (“TEDE”)/yr, to the extent such a dose is reasonably achievable, and in no case will estimated (modeled) doses within buildings exceed 100 mrem TEDE/yr. Doses will be estimated (modeled) using realistic exposure scenarios that assume the buildings are used for licensed activities. However the licensee remains subject to the criteria in the original June 19, 1998 letter.”

The support for this proposal is as follows.

1. The “as is” condition of the retired facilities affected by the new proposed criteria no undue risk to health and safety. See “Waltz Mill Facility SNM-770 Retired Facilities Radiological Status Report (Docket No. 70-698).” The NRC’s inspection reports confirm this. In fact, the radiological status of the retired facilities generally resembles that of operational areas in other buildings on the Site where licensed activities are currently conducted on a safe and routine basis. Moreover, the requested amendment applies only to the partial remediation of the retired facilities, not ultimate decommissioning, and the NRC recognizes that “Westinghouse has agreed to meet the LTR requirements at the Waltz Mill site for all of the residual materials connected with operations (including the materials transferred from the TR-2 license) when it seeks license termination after all activity has ceased at the site.” See letter from John F. Cordes, dated March 17, 2006 (Reference 4). Thus the requested amendment will have no effect on the ultimate radiological condition of the Site.
2. The criteria in the June 19, 1998 letter have no rational basis and need to be changed. These criteria are four times NRC Regulatory Guide 1.86 Table I levels for areas within buildings that may be used for future use under the license, and Reg. Guide 1.86 Table I levels for areas that will not be so used (the so-called 4x and x criteria). The Regulatory Guide 1.86 Table I values were set decades ago on the basis of 1974 measurement capabilities for radiological surface contamination, and they do not equate to uniform doses or risks. In fact, the NRC dismissed the use of these levels when it promulgated the dose-based license termination rule in 10 C.F.R. Part 20, Subpart E. For this reason, use of Regulatory Guide 1.86 is no longer required in modern decommissioning projects, which focus on radiation dose and the safety of workers and the public, except perhaps as a convenient screening tool for determining whether the surface of an object is radioactive for purpose of contamination control.

3. The purpose of the remediation project was to remove residual radioactivity so as to facilitate possible future licensed uses of the facilities. This is why the 4x criteria in the June 19, 1998 letter are the key ones.<sup>2</sup> The 4x criteria are unique to Waltz Mill. They were chosen in response to an NRC request, dated June 10, 1998, to revise the previous remediation criteria to show that “a reasonable effort has been made to reduce residual contamination to as low as reasonably achievable levels.” The licensee believed that 4x levels could be achieved effectively in all locations and were ALARA, and that they were therefore responsive to the NRC’s request. This belief proved to be incorrect in some areas as the remediation progressed to the point where additional remediation to meet the 4x criteria proved to be prohibitively expensive. This was primarily because of the unexpected depth of the contamination of building surfaces and the need to address complex building structural issues before engaging in substantial additional remediation. The NRC recognizes that such a material change in circumstances can be the basis for a change in NRC requirements. Ohio Edison Company (Perry Nuclear Power Plant, Unit 1), CLI-92-11, 36 NRC 47, 59 at note 42.
4. The 4x criteria are also arbitrary. They apply only to parts of buildings that may be used for future licensed activities, and they stand in stark contrast to the remediation criteria (contamination control program for operational areas) that apply to other areas of the Waltz Mill site that are being used by Westinghouse for licensed activities. See SNM-770, Application for Renewal USNRC License Number SNM-770, Docket Number 070-00698, Revision 1, June 6, 2002, at 10.7.2 (3) (“The amount of fixed contamination on surfaces of the restricted area will be controlled by maintaining the dose rate ALARA”). There is no reason why some areas on the Waltz Mill Site should be remediated to meet the 4x criteria while other similar areas on the site should be subject to ALARA-driven flexible contamination controls.
5. The NRC’s current risk-informed approach to decommissioning would allow consideration of dose assessments and realistic exposure scenarios. See SECY-05-0199, Attachment 2, “Risk Informed Regulation Implementation Plan,” Chapter 1-36; FMRI (Muskogee, Oklahoma Facility), LBP-04-8, 59 NRC 266, 278-281 (2004); SECY-97-061, “Removal of Texas Instruments, Inc. From Site Decommissioning Management Plan”; SECY-98-117, “Shelwell Services, Inc., Risk Assessment.” In the case of Shelwell, for example, the NRC concluded that it was acceptable to leave seventy building surface areas contaminated in excess of allowable limits because the estimated dose was below 25 mrem/per year.

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<sup>2</sup> Westinghouse has informed the NRC that “no licensed use is practical for the facilities at issue and Option [paragraph] (b) of the June 19, 1998 letter apply.” Mark J. Wetterhahn letter to Patrick J. Isaac, USNRC, dated February 18, 2004 (Reference 2). Accordingly, the NRC could conclude that there is no need to entertain any amendment or order related to paragraph (a) because issues regarding it are moot. However, depending on how pending disagreements between CBS and Westinghouse are finally resolved, amendments to paragraph (a) may be critical in defining the extent of CBS’s partial remediation responsibilities under the Plan and, unless this application is entertained, those responsibilities will be left undefined by the NRC.

6. The fundamental objective in the revised criteria to reduce residual contamination to levels that are ALARA is in keeping with the NRC's direction in its June 10, 1998 letter. The retired facility buildings are within a radiation controlled (restricted personnel access) area on a site with owner controlled access. See SNM-770 Remediation Plan at pg. 2-1. Moreover, the 4x criteria apply only to "Inactive Restricted Areas." Therefore, neither the 25 mrem TEDE per year criterion in the NRC's license termination rule (10 C.F.R. Part 20, Subpart E) nor the 100 mrem TEDE per year public exposure limit in 10 C.F.R. §20.1301 (a) apply here because the purpose of the Plan is to facilitate licensed use, not unrestricted public use. Instead, the applicable exposure limits are those in 10 C.F.R. Part 20, Subpart C relating to occupational exposures. The primary limit here is 5,000 mrem TEDE per year. Nevertheless, 10 C.F.R. §20.1301 (a) and 10 C.F.R. Part 20, Subpart E imply clearly that a limit of 100 mrem TEDE per year is more than adequate to achieve the fundamental safety objective of the Plan and that 25 mrem TEDE per year is a suitable remediation objective if it is reasonably achievable. The dose from the residual radioactive materials will be separate from any dose delivered to workers from other licensed materials, such as reactor components being serviced, but the proposed 100 mrem TEDE/per year limit for the residual materials is a fraction of the applicable occupational exposure limit, and the combined dose should continue to be well below the 5,000 mrem TEDE/per year limit for workers. The ALARA remediation objective, together with procedures and engineering controls developed and implemented under 10 C.F.R. § 20.1101 (b), will assure that radiation exposures to persons engaged in licensed activities in the buildings will always be ALARA.
7. Since the purpose of the remediation is to facilitate future licensed use, realistic exposure scenarios for the buildings covered by the proposed 100 mrem TEDE/per year dose limit and 25 mrem TEDE per year ALARA goal may be limited to those associated with the conduct of reasonable licensed activities within the buildings. CBS proposes to assess compliance with the limit and goal by (a) using the RESRAD-Build model configured for the affected buildings in their current radiological condition, after appropriate radionuclide abstraction and decay, (b) assuming that the buildings are used for licensed activities similar to the licensed activities being conducted in other buildings on the Waltz Mill site, and (c) assuming that the buildings will remain restricted areas. CBS may also use the software code Microshield and actual exposure rate measurements to supplement or confirm the results of RESRAD-Build. No credit will be taken for additional access controls unless, putting radiological conditions aside, the physical nature of area in question renders it unsuitable for licensed activities (for example a small basement room with difficult access) or makes continuous worker presence unlikely (for example the constricted interior of a small tunnel or deep canal). No additional access controls will be assumed for areas where licensed activities and continuous worker presence may reasonably be presumed. Additional remediation will be done if, using this approach, the 100 mrem TEDE/per year limit is not met.

8. Previous evaluations suggest that doses from residual contamination in the retired facilities have already been reduced to levels that are ALARA. Nevertheless, these evaluations will be reviewed for consistency with the occupational use scenarios assumed for the 100 mrem TDE/yr limit and 25 mrem TEDE/per year ALARA goal. If doses from residual contamination levels are not ALARA, then additional measures will always be taken so that they are ALARA.

As indicated above, the June 19, 1998 letter also includes (in paragraph (b) of the Attachment) criteria for surface contamination (fixed plus removable) that apply to 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." These criteria correspond to the levels in Table I of NRC Regulatory Guide 1.86. CBS does not believe that its responsibility extends to cleaning up buildings or building areas to facilitate unrestricted (public) use, because the purpose of both the TR-2 Final Decommissioning Plan and the SNM-770 Remediation Plan was to facilitate possible licensed use, not unrestricted use. Therefore, CBS does not believe it has standing to request a change to the criteria in Paragraph (b) of the June 19, 1998 letter.

However, CBS recognizes that it would be inconsistent to apply a modern risk informed approach to amending paragraph (a) of the June 19, 1998 letter while declining to do so for paragraph (b). Accordingly, if NRC believes CBS has standing to request an amendment to paragraph (b) of the June 19, 1998 letter, CBS would be prepared to do so promptly, using a risk informed approach. Alternatively, if NRC grants CBS's request to amend paragraph (a), NRC could express a willingness to consider a Westinghouse request to amend paragraph (b).

Sincerely,



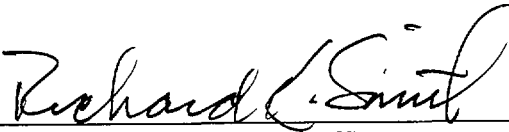
Richard K. Smith  
Vice President, Environmental Remediation

Attachment

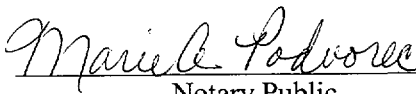
Copies transmitted: 3 notarized and 5 conformed

COMMONWEALTH OF PENNSYLVANIA )  
 ) SS:  
COUNTY OF ALLEGHENY )

Before me, the undersigned notary public, this day personally appeared Richard K. Smith, Vice President, Environmental Remediation, CBS Corporation, 11 Stanwix Street, Pittsburgh, PA 15222-1384, 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.

  
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Signature of Affiant

Subscribed and sworn to before me this  
12<sup>th</sup> day of July, 2006

  
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Notary Public

COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Marie A. Podvorec, Notary Public  
City Of Pittsburgh, Allegheny County  
My Commission Expires Dec. 8, 2007  
Member, Pennsylvania Association Of Notaries





Cc: Mr. Mark Roberts  
Project Manager, Decommissioning Branch  
U.S. Nuclear Regulatory Commission, Region I  
475 Allendale Road  
King of Prussia, PA 19406-1415

Mr. Patrick Isaac, Project Manager  
Research and Test Reactors Section  
Office of Nuclear Reactor Regulation  
Mail Stop O-12G13  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Mr. Robert Maiers, Chief Decommissioning Section  
Commonwealth of Pennsylvania Department of Environmental Protection  
Rachel Carson State Office Building  
P.O. Box 8469  
Harrisburg, PA 17105-8469

Mr. James G. Yusko, Regional Manager Radiation Protection  
Commonwealth of Pennsylvania Department of Environmental Protection  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745

Mr. Wayne Vogel, Radiation Safety Officer  
Westinghouse Electric Company LLC  
P.O. Box 158  
Madison, PA 15663-0158

Mr. Richard G. Murphy, Jr., Esq.  
Sutherland, Asbill & Brennan, L.L.P.  
1275 Pennsylvania Avenue, N.w.  
Washington, DC 20004-2415

Mr. A. Joseph Nardi  
Supervisory Engineer – Environment, Health and Safety  
Westinghouse Electric Company LLC  
P.O. Box 355  
Pittsburgh, PA 15230-0355



## CBS Corporation

Richard K. Smith  
Vice President - Environmental Remediation  
11 Stanwix Street, Room 370  
Pittsburgh, PA 15222

Phone: 412-642-3285  
Fax: 412-642-3957  
E-mail: Richard.Smith@cbs.com

July 12, 2006

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Subject: Application to Amend TR-2 Final Decommissioning Plan, Rev. No. 1,  
NRC Docket No. 50-22

### References:

1. Charles W. Emeigh, USNRC, letter to A. Joseph Nardi, dated March 10, 1999
2. Mark J. Wetterhahn letter (on behalf of Westinghouse Electric Company LLC) to Patrick J. Isaac, USNRC, dated February 18, 2004
3. Martin G. Malsch letter (on behalf of Viacom, Inc.) to John Cordes, Solicitor, USNRC, dated December 3, 2004
4. John Cordes, Solicitor, USNRC, letter to Richard G. Murphy, Jr., Mark J. Wetterhahn, Martin G. Malsch, and Michael F. McBride, dated March 17, 2006

This is an application by CBS Corp. ("CBS") (formerly Viacom, Inc.) to amend the TR-2 Final Decommissioning Plan, Rev. No. 1 ("Plan"), as required by 10 C.F.R. § 50.59(c)(2).<sup>1</sup> CBS is the holder of NRC License No. TR-2 for the former Westinghouse Test Reactor ("WTR") located at the Waltz Mill Site in western Pennsylvania. The WTR is shut down and de-fueled, and the TR-2 license authorizes possession and decommissioning but not facility operation. This application is made as a logical consequence of references 3 and 4. As explained below, the purpose of the application is to revise the building remediation criteria in the Plan so that they conform to current NRC practice and policy which encourage a risk informed approach to nuclear decommissioning and remediation. The application would also result in remediation criteria that are consistent with similar criteria that currently apply in other buildings being used on the Site for NRC-licensed activities. This is important because the purpose of the Plan is to facilitate possible licensed use of the buildings, consistent with other licensed activities on the Site. Yet, as things now stand, the WTR buildings surfaces must be remediated to arbitrary pre-fixed contamination limits, based on instrument detection capabilities in the mid-1970s,

<sup>1</sup> The TR-2 Final Decommissioning Plan, Rev. 0, was approved as an amendment to the Final Safety Analysis Report ("FSAR") by Amendment No. 8 to the TR-2 license on September 30, 1998. Rev. No. 1 was made pursuant to 10 C.F.R. § 50.59 on September 1, 1999. The change in remediation criteria applied for herein would constitute a departure from a method of evaluation described in the FSAR and used in the safety analysis. For this reason, CBS is applying for an amendment rather than making the change itself pursuant to 10 C.F.R. § 50.59.

regardless of dose or ALARA considerations, while other operational (restricted) areas on the Site are subject only to an ALARA-based standard with no pre-fixed acceptable levels for fixed contamination.

The Plan required certain WTR structures and components to be removed prior to the termination of the TR-2 license. NRC's March 17, 2006 letter (Reference 4) establishes that these removal activities have been completed. However, the TR-2 license is still in effect and CBS, as the licensee, remains subject to a related obligation to partially remediate remaining WTR structures in accordance with criteria set forth in paragraph (a) of the June 19, 1998 letter quoted in the NRC's March 17, 2006 letter. This obligation arises from the Plan, and therefore the TR-2 license, although it was contemplated that the remediation could (but need not) be completed some time after termination of the TR-2 license and the transfer of WTR residual radioactive material to the SNM-770 license currently held by Westinghouse Electric Company LLC ("Westinghouse"). See Plan at pp. 1-3, 2-1, 2-22 through 2-30.<sup>2</sup> Indeed, the NRC's March 17, 2006 letter also makes it clear that this partial remediation obligation is part of CBS's obligations as the TR-2 licensee.

CBS also shares responsibility with Westinghouse for the partial remediation of various "retired facilities" covered by Westinghouse's SNM-770 license. This remediation is also governed by paragraph (a) of the June 19, 1998 letter, which is incorporated into the SNM-770 license along with the SNM-770 Remediation Plan. CBS's responsibility for the partial remediation of these retired facilities is based on an Asset Purchase Agreement with Westinghouse's parent company. The NRC recognized CBS's role under this Asset Purchase Agreement when approved of the transfer of SNM-770 to Westinghouse in 1999. See Charles W. Emeigh, USNRC, letter to A. Joseph Nardi, dated March 10, 1999 (Reference 1).

CBS has spent over \$90 million in remedial activities at the Waltz Mill Site under the Plan and SNM-770 Remediation Plan, while Westinghouse has spent little or nothing. CBS and Westinghouse disagreed over how the Plan and the June 19, 1998 letter should be interpreted, and this resulted in a delay in completing the decommissioning and remediation. In its December 3, 2004 letter (Reference 3), CBS presented facts and arguments in support of its interpretation of the Plan and letter, and also indicated that it would apply to amend the June 19, 1998 criteria if the NRC disagreed with CBS's interpretation of them. December 3, 2004 letter at pg. 5, note 21. These interpretation questions are now resolved; the NRC has now agreed with CBS's interpretation of the Plan but disagreed with CBS's interpretation of the letter. NRC has now clarified that, as written, the numerical remediation criteria for building surface contamination in the June 19, 1998 letter (based on Table I of NRC Reg. Guide 1.86) are not subject to any exception based on the ALARA principle or limitations in either the Plan or the related SNM-770 Remediation Plan. Accordingly, as indicated, CBS is submitting this

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<sup>2</sup> Page 1-3 of the Plan states that "[a]dditionally, decontamination and dismantlement activities of other structures and equipment associated with TR-2 may be performed in accordance with this plan," and that "[t]he approved acceptance criteria associated with the retired facilities in the SNM-770 Remediation Plan will also be used for these other area." Thus the acceptance criteria in the SNM-770 Remediation Plan (currently the June 19, 1998 letter) are incorporated into the Plan.

application to amend the criteria in the June 19, 1998 letter, as applicable to remediation of the WTR.

Specifically, CBS proposes to modify the criteria for remediation of buildings in paragraph (a) of the Attachment to the June 19, 1998 letter, as applied to the WTR.<sup>3</sup> This modification would be accomplished by deleting the sentence “The approved acceptance criteria associated with the retired facilities in the SNM-770 Remediation Plan will also be used for these other areas” on page 1-3 (section 1.2) of the Plan and replacing it with the following: “Structures (buildings) will be decontaminated so that the residual radioactivity has been reduced to levels that are as low as reasonably achievable (“ALARA”). In addition, estimated (modeled) doses within buildings will not exceed 25 mrem total effective dose equivalent (“TEDE”)/yr, to the extent such a dose is reasonably achievable, and in no case will estimated (modeled) doses within buildings exceed 100 mrem TEDE/yr. Doses will be estimated (modeled) using realistic exposure scenarios that assume the buildings are used for licensed activities.” The support for this proposal is as follows.

1. The “as is” condition of the former WTR presents no undue risk to health and safety. See “Westinghouse Test Reactor Licensed Facilities Radiological Status Report,” previously submitted in this docket. The NRC’s inspection reports confirm this. In fact, the radiological status of the former WTR generally resembles that of operational areas in other buildings on the site where licensed activities are currently conducted on a safe and routine basis. Moreover, the requested amendment applies only to the partial remediation of the WTR structures, not ultimate WTR decommissioning, and the NRC recognizes that “Westinghouse has agreed to meet the LTR requirements at the Waltz Mill site for all of the residual materials connected with operations (including the materials transferred from the TR-2 license) when it seeks license termination after all activity has ceased at the site.” See letter from John F. Cordes, dated March 17, 2006 (Reference 4). Thus the requested amendment will have no effect on the ultimate radiological condition of the Site.

2. The criteria in the June 19, 1998 letter have no rational basis and need to be changed. These criteria are four times NRC Regulatory Guide 1.86 Table I levels for areas within buildings that may be used for future use under the license, and Reg. Guide 1.86 Table I levels for areas that will not be so used (the so-called 4x and x criteria). The Regulatory Guide 1.86 Table I values were set decades ago on the basis of 1974 measurement capabilities for radiological surface contamination, and they do not equate to uniform doses or risks. In fact, the NRC dismissed the use of these levels when it promulgated the dose-based license termination rule in 10 C.F.R. Part 20, Subpart E. For this reason,

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<sup>3</sup> Westinghouse has informed the NRC that “no licensed use is practical for the facilities at issue and Option [paragraph] (b) of the June 19, 1998 letter apply.” Mark J. Wetterhahn letter to Patrick J. Isaac, USNRC, dated February 18, 2004 (Reference 2). Accordingly, NRC could conclude that there is no need to entertain any amendment to paragraph (a) because issues regarding it are moot. However, depending on how pending disagreements between CBS and Westinghouse are finally resolved, amendments to paragraph (a) may be critical in defining the extent of CBS’s partial remediation responsibilities under the Plan and, unless this application is entertained, those responsibilities will be left undefined by the NRC.

use of Regulatory Guide 1.86 is no longer required in modern decommissioning projects, which focus on radiation dose and the safety of workers and the public, except perhaps as a convenient screening tool for determining whether the surface of an object is radioactive for purpose of contamination control.

3. The purpose of the remediation project was to remove residual radioactivity so as to facilitate possible future licensed uses of the facilities. This is why the 4x criteria in the June 19, 1998 letter are the key ones.<sup>4</sup> The 4x criteria are unique to Waltz Mill. They were chosen in response to an NRC request, dated June 10, 1998, to revise the previous remediation criteria to show that “a reasonable effort has been made to reduce residual contamination to as low as reasonably achievable levels.” The licensee believed that 4x levels could be achieved effectively in all locations and were ALARA, and that they were therefore responsive to the NRC’s request. This belief proved to be incorrect in some areas as the remediation progressed to the point where additional remediation to meet the 4x criteria proved to be prohibitively expensive. This was primarily because of the unexpected depth of the contamination on building surfaces and the need to address complex building structural issues before proceeding with substantial additional remediation. The NRC recognizes that such a material change in circumstances can be the basis for a change in NRC requirements. Ohio Edison Company (Perry Nuclear Power Plant, Unit 1), CLI-92-11, 36 NRC 47, 59 at note 42.

4. The 4x criteria are also arbitrary. They apply only to parts of buildings that may be used for future licensed activities, and they stand in stark contrast to the remediation criteria (contamination control program for operational areas) that apply to other areas of the Waltz Mill site that are being used by Westinghouse for licensed activities. See SNM-770, Application for Renewal USNRC License Number SNM-770, Docket Number 070-00698, Revision 1, June 6, 2002, at 10.7.2 (3) (“The amount of fixed contamination on surfaces of the restricted area will be controlled by maintaining the dose rate ALARA”). There is no reason why areas on the Waltz Mill within CBS’s responsibility (as the TR-2 licensee) should be remediated to meet the 4x criteria while similar areas on the site within Westinghouse’s responsibility (as the SNM-770 licensee) should be subject to ALARA-driven flexible contamination controls.

5. The NRC’s current risk-informed approach to decommissioning encourages consideration of dose assessments and realistic exposure scenarios. See SECY-05-0199, Attachment 2, “Risk Informed Regulation Implementation Plan,” Chapter 1-36; FMRI (Muskogee, Oklahoma Facility), LBP-04-8, 59 NRC 266, 278-281 (2004); SECY-97-

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<sup>4</sup> Paragraph (a) of the June 19, 1998 letter applies to buildings “which may be used for future use under the license.” Both the Plan and the SNM-770 Remediation Plan are premised on continued licensed use. This is clear not only from the Plans themselves (see for example page 2-1 of the Plan), but also from the record of extensive interchanges between the licensee and NRC. See, for example, A. Joseph Nardi’s statement to the NRC on January 22, 1999 that “The same way with buildings. We were saying that we would remediate them to a continuation –to a licensed use so that we could continue to use them under the license....we weren’t going to take it unrestricted use, that internally we could make decisions that would lead us toward extensive contamination or more extensive effort. But that would be our decision.”

061, "Removal of Texas Instruments, Inc. From Site Decommissioning Management Plan"; SECY-98-117, "Shelwell Services, Inc., Risk Assessment." In the case of Shelwell, for example, the NRC concluded that it was acceptable to leave seventy building surface areas contaminated in excess of previously approved limits because the estimated dose was below 25 mrem/per year.

6. The fundamental objective of the revised criteria to reduce residual contamination to levels that are ALARA is in keeping with the NRC's direction in its June 10, 1998 letter. The WTR is within a radiation controlled (restricted personnel access) area on a site with owner controlled access. See TR-2 Final Decommissioning Plan at pp. 8-2 -8-4. Moreover, the 4x criteria apply only to "Inactive Restricted Areas." Therefore, neither the 25 mrem TEDE per year criterion in the NRC's license termination rule (10 C.F.R. Part 20, Subpart E) nor the 100 mrem TEDE per year public exposure limit in 10 C.F.R. §20.1301 (a) apply here because the purpose of the Plan is to facilitate licensed use, not unrestricted public use. Instead, the applicable exposure limits are those in 10 C.F.R. Part 20, Subpart C relating to occupational exposures. The primary limit here is 5,000 mrem TEDE per year. Nevertheless, 10 C.F.R. §20.1301 (a) and 10 C.F.R. Part 20, Subpart E imply clearly that a limit of 100 mrem TEDE per year is more than adequate to achieve the fundamental safety objective of the Plan and that 25 mrem TEDE per year is a suitable remediation objective if it is reasonably achievable. The dose from the residual radioactive materials will be separate from any dose delivered to workers from other licensed materials, such as reactor components being serviced, but the proposed 100 mrem TEDE/per year limit for the residual materials is a fraction of the applicable occupational exposure limit, and the combined dose should continue to be well below the 5,000 mrem TEDE/per year limit for workers. The ALARA remediation objective, together with procedures and engineering controls developed and implemented under 10 C.F.R. §20.1101 (b), will assure that radiation exposures to persons engaged in licensed activities in the buildings will always be ALARA.

7. Since the purpose of the remediation is to facilitate future licensed use, realistic exposure scenarios for the buildings covered by the proposed remediation limit (100mrem TEDE/yr) and ALARA goal (25 mrem TEDE/yr) may be limited to those associated with the conduct of reasonable licensed activities within the buildings. CBS proposes to assess compliance with the limit and goal by (a) using the RESRAD-Build model configured for the affected buildings in their current radiological condition, after appropriate radionuclide abstraction and decay, (b) assuming that the buildings are used for licensed activities similar to the licensed activities being conducted in other buildings on the Waltz Mill Site, and (c) assuming that the buildings will remain restricted areas. CBS may also use the software code Microshield and actual exposure rate measurements to supplement or confirm the results of RESRAD-Build. No credit will be taken for additional access controls unless, putting radiological conditions aside, the physical nature of area in question renders it unsuitable for licensed activities (for example a small basement room with difficult access) or makes continuous worker presence unlikely (for example the constricted interior of a small tunnel or deep canal). No additional access controls will be assumed for areas (for example the WTR containment) where licensed

activities and continuous worker presence may reasonably be presumed. Additional remediation will be done if, using this approach, the 100 mrem/per year TEDE limit is not met.

8. Previous evaluations suggest that doses from residual contamination have already been reduced to levels that are ALARA. Nevertheless, these evaluations will be reviewed for consistency with the occupational use scenarios assumed for the 100 mrem TEDE/per year limit and 25 mrem TEDE/per year ALARA goal. If doses from residual contamination levels are not ALARA, then additional measures will always be taken so that they are ALARA.

As indicated above, the June 19, 1998 letter also includes (in paragraph (b) of the Attachment) criteria for surface contamination (fixed plus removable) that apply to 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." These criteria correspond to the levels in Table I of Regulatory Guide 1.86. CBS does not believe that its responsibility extends to cleaning up buildings or building areas to facilitate unrestricted (possibly public) use, because the purpose of both the Plan and the SNM-770 Remediation Plan was to facilitate possible licensed use, not unrestricted use. Therefore, CBS does not believe it has standing to request a change to the criteria in Paragraph (b) of the June 19, 1998 letter.

However, CBS recognizes that it would be inconsistent to apply a modern risk informed approach to amending paragraph (a) of the June 19, 1998 letter while declining to do so for paragraph (b). Accordingly, if NRC believes CBS has standing to request an amendment to paragraph (b) of the June 19, 1998 letter, CBS would be prepared to do so promptly, as applied to the WTR, using a risk informed approach. Alternatively, if NRC grants CBS's request to amend paragraph (a), NRC could express a willingness to consider a Westinghouse request to amend paragraph (b).

In further support of this application, attached as Exhibit A are findings (with supporting reasons) that the proposed amendment will not involve any significant hazards consideration.

Sincerely,



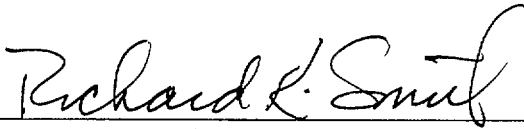
Richard K. Smith  
Vice President, Environmental Remediation

Attachment

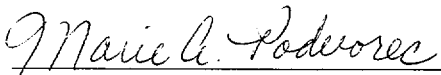
Copies transmitted: 3 notarized and 5 conformed

COMMONWEALTH OF PENNSYLVANIA )  
 ) SS:  
COUNTY OF ALLEGHENY )

Before me, the undersigned notary public, this day personally appeared Richard K. Smith, Vice President, Environmental Remediation, CBS Corporation, 11 Stanwix Street, Pittsburgh, PA 15222-1384, 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.

  
\_\_\_\_\_  
Signature of Affiant

Subscribed and sworn to before me this  
12<sup>th</sup> day of July, 2006

  
\_\_\_\_\_  
Notary Public

COMMONWEALTH OF PENNSYLVANIA

Notarial Seal  
Marie A. Podvorec, Notary Public  
City Of Pittsburgh, Allegheny County  
My Commission Expires Dec. 8, 2007

Member, Pennsylvania Association Of Notaries



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

Mr. Patrick Isaac, Project Manager  
Research and Test Reactors Section  
Office of Nuclear Reactor Regulation  
Mail Stop O-12G13  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Mr. Mark Roberts  
Project Manager, Decommissioning Branch  
U.S. Nuclear Regulatory Commission, Region I  
475 Allendale Road  
King of Prussia, PA 19406-1415

Mr. Robert Maiers, Chief Decommissioning Section  
Commonwealth of Pennsylvania Department of Environmental Protection  
Rachel Carson State Office Building  
P.O. Box 8469  
Harrisburg, PA 17105-8469

Mr. James G. Yusko, Regional Manager Radiation Protection  
Commonwealth of Pennsylvania Department of Environmental Protection  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745

Mr. Wayne Vogel, Radiation Safety Officer  
Westinghouse Electric Company LLC  
P.O. Box 158  
Madison, PA 15663-0158

Mr. Richard G. Murphy, Jr., Esq.  
Sutherland, Asbill & Brennan, L.L.P.  
1275 Pennsylvania Avenue, N.w.  
Washington, DC 20004-2415

Mr. A. Joseph Nardi  
Supervisory Engineer – Environment, Health and Safety  
Westinghouse Electric Company LLC  
P.O. Box 355  
Pittsburgh, PA 15230-0355

## EXHIBIT A

### NO SIGNIFICANT HAZARDS CONSIDERATION EVALUATION PURSUANT TO 10 C.F.R §50.92 FOR THE AMENDMENT TO THE TR-2 FINAL DECOMMISSIONING PLAN, REV. 1, NRC DOCKET NO. 50-22

The proposed amendment is limited to a change in the remediation criteria (currently four times the levels in Table I of NRC Regulatory Guide 1.86) for the former Westinghouse Test Reactor ("WTR") on the Waltz Mill Site in western Pennsylvania, so that (1) criteria for remediation of building surfaces will be consistent across the Site and (2) the need for any additional remediation of the WTR structures can be determined in a risk informed manner.

Under the proposed amendment, WTR structures (buildings) will be decontaminated so that the residual radioactivity has been reduced to levels that are as low as reasonably achievable ("ALARA"). In addition, estimated (modeled) doses within buildings will not exceed 25 mrem total effective dose equivalent ("TEDE") per year, to the extent such a dose is reasonably achievable, and in no case will estimated (modeled) doses within buildings exceed 100 mrem TEDE/per year. Doses will be estimated (modeled) using realistic exposure scenarios that assume the buildings are used for licensed activities.

The fundamental objective to reduce residual contamination to levels that are ALARA is in keeping with the NRC's direction in its June 10, 1998 letter to the licensee. The WTR is within a radiation controlled (restricted personnel access) area on a site with owner controlled access. See TR-2 Final Decommissioning Plan at pp. 8-2-8-4. Moreover, the 4x criteria apply only to "Inactive Restricted Areas." Therefore, neither the 25 mrem TEDE per year criterion in the NRC's license termination rule (10 C.F.R. Part 20, Subpart E) nor the 100 mrem TEDE per year public exposure limit in 10 C.F.R. §20.1301 (a) apply here because the purpose of the Plan is to facilitate licensed use, not unrestricted public use. Instead, the applicable exposure limits are those in 10 C.F.R. Part 20, Subpart C relating to occupational exposures. The primary limit here is 5,000 mrem TEDE per year. Nevertheless, 10 C.F.R. §20.1301 (a) and 10 C.F.R. Part 20, Subpart E imply clearly that a limit of 100 mrem TEDE per year is more than adequate to achieve the fundamental safety objective of the Plan and that 25 mrem TEDE per year is a suitable remediation objective if it is reasonably achievable. The dose from the residual radioactive materials will be separate from any dose delivered to workers from other licensed materials, such as reactor components being serviced, but the proposed 100 mrem TEDE/per year limit for the residual materials is a fraction of the applicable occupational exposure limit, and the combined dose should continue to be well below the 5,000 mrem TEDE/per year limit for workers. The ALARA remediation objective, together with procedures and engineering controls developed and implemented under 10 C.F.R. §20.1101 (b), will assure that radiation exposures to persons engaged in licensed activities in the buildings will always be ALARA.

Since the purpose of the remediation is to facilitate future licensed use, realistic exposure scenarios for the buildings covered by the proposed 100 mrem TEDE/per year dose limit and 25 mrem TEDE/per year ALARA goal may be limited to those associated with the conduct of reasonable licensed activities within the buildings. CBS proposes to assess compliance with the limit and goal by (a) using the RESRAD-Build model configured for the affected buildings in their current radiological condition, after appropriate radionuclide abstraction and decay, (b) assuming that the buildings are used for licensed activities similar to the licensed activities being conducted in other buildings on the Waltz Mill Site, and (c) assuming that the buildings will remain restricted areas. CBS may also use the software code Microshield and actual exposure rate measurements to supplement or confirm the results of RESRAD-Build. No credit will be taken for additional access controls unless, putting radiological conditions aside, the physical nature of area in question renders it unsuitable for licensed activities (for example a small basement room with difficult access) or makes continuous worker presence unlikely (for example the constricted interior of a small tunnel or deep canal). No additional access controls will be assumed for areas (for example the WTR containment) where licensed activities and continuous worker presence may reasonably be presumed. Additional remediation will be done if, using this approach, the 100 mrem TEDE/per year limit is not met. Additional remediation will always be conducted so that doses and residual levels of contamination are ALARA.

The proposed amendment has been evaluated against the standards in 10 C.F.R. §50.92 (c) and it has been determined that no significant hazards consideration are involved. CBS notes that the remediation criteria for the WTR were changed previously when the NRC approved of the revised criteria in the June 19, 1998, letter, based on an application by Westinghouse Electric Company LLC, without any significant hazards consideration evaluation.

Specifically, the amendment does not involve any irreversible consequences and it:

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

The TR-2 license for the WTR is a possession only license. The reactor fuel has been removed, the pressure vessel and vessel internals have been removed, other reactor equipment has been removed, and at the appropriate time, coincident with TR-2 license termination, remaining residual radioactivity will be transferred to the SNM-770 license (held by Westinghouse Electric Company LLC) in accordance with the TR-2 Final Decommissioning plan, Rev. 1 ("Plan"), approved by the NRC as an amendment to the FSAR in Amendment No. 8 to the TR-2 license on September 30, 1998. The WTR is being maintained in a safe condition in accordance with the license and technical specifications. The current radiological status of the facility is described in the "Westinghouse Test Reactor Licensed Facility Radiological Status Report (Docket No. 50-22), October 2003. The technical specifications provide in section 3.2.4. that "the

extremely small source term at the [WTR] is adequately confined by the containment building.” The amendment will not change this status.

The “Accident Analysis” in section 3.4. of the Plan analyzes four accident scenarios: dropping of contaminated concrete block/rubble; fire/explosion; canal sediment criticality; and rupture of a HEPA vacuum bag. The first scenario involved a worst case drop of a 50-ton contaminated concrete block from the biological shield, resulting in 1000 pounds of concrete dust becoming airborne, and a dose 100 meters downwind of 22 mrem. The second scenario involved the ignition of contaminated and combustible material (rags, wipes, contaminated clothing, etc.) in a sealand container, resulting conservatively in a release of 0.1 percent of the activity to the atmosphere, and a resulting dose 100 meters downwind of less than 1 mrem. The third scenario involved a possible criticality event in the course of removing canal sediment and water, an event presumed to be impossible based on expected criticality evaluations. The fourth scenario assumed that a HEPA vacuum collection bag ruptures when full, resulting in a dose 100 meters downwind of less than 1 mrem. These accident evaluations were reviewed independently and the results confirmed by the NRC in its September 30, 1998 Safety Evaluation Report in support of Amendment No. 8 to TR-2. Substantial remediation has taken place since the Plan was prepared, resulting in a much smaller source term, and canal sediment and water have been removed. Therefore the consequences of these postulated accidents will not be increased. Moreover, the requested amendment will not lead to any different or additional remediation of WTR that could increase the probability of the accidents evaluated.

Rev. 1 of the Plan (made pursuant to 10 C.F.R. §50.59) was supported by an evaluation of possible accidents associated with additional techniques for removing the reactor vessel or tank. This evaluation concluded that the original accident evaluation was still controlling and that no unreviewed safety question was presented by the change. The vessel has since been removed.

In sum, given the foregoing, the amendment will not affect any accident initiators and will not affect any matter that could increase the consequences of any accident. The already low probability and small consequences of an accident previously evaluated will not be significantly increased by the requested amendment.

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

The amendment only affects remediation criteria. No changes in the technical specifications are involved, there is no change in expected remediation methods, and access to the WTR will continue to be controlled. In accordance with NRC’s March 17, 2006 letter, additional remediation to meet the amended criteria (if needed) will be performed only in accordance with work packages that will assure that no different kind of accident is credible. These work packages will be submitted to the NRC for review before the work commences.

In sum, remediation activities will continue to be conducted in accordance with the same procedures and license conditions as before. No new accident initiators will be introduced. For these reasons, and for the reasons given in (1) above, the amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The criteria change will not involve a significant reduction in a margin of safety for the reasons given in (1) and (2) above.