

February 1, 1999

FOR: The Commissioners

FROM: William D. Travers /s/
Executive Director for Operations

SUBJECT: REMOVAL OF THE CHEMETRON HARVARD AVENUE AND BERT AVENUE SITES FROM THE SITE DECOMMISSIONING MANAGEMENT PLAN

PURPOSE:

To inform the Commission that remediation has been completed at the Chemetron Harvard Avenue site, in Cuyahoga Heights, Ohio, and the Chemetron Bert Avenue site, in Newburgh Heights, Ohio; and staff plans to release the sites for unrestricted use and remove them from the Site Decommissioning Management Plan (SDMP) list.

BACKGROUND:

In SECY-90-121, the original SDMP, and in subsequent revisions to the SDMP (SECY-91-096; 92-200; 93-179; 94-213; 95-209; 96-207; and 97-242), the staff identified approximately 50 sites that, because they met specific criteria (e.g., presence of large amounts of contaminated soil and potential contamination of groundwater or other environmental impacts), warranted Nuclear Regulatory Commission (NRC) special oversight to ensure timely and safe remediation of residual radioactive material in excess of the current NRC criteria for release for unrestricted use. Two of these sites are Chemetron's Harvard Avenue and Bert Avenue sites.

In 1965, the Atomic Energy Commission issued Source Material License No. SUB-852 to Chemetron Corporation, which manufactured catalysts containing depleted uranium. These operations were carried out between 1965 and 1972 in facilities located at the Harvard Avenue site. By February 1972, manufacture of the catalysts had been terminated, and in December 1973, the License was amended to authorize storage only for the remaining depleted uranium. No activities involving source material, other than decontamination, have been conducted at the site since Chemetron's termination of the catalyst production in 1972. A detailed discussion of the Harvard Avenue and Bert Avenue site history is provided in Attachment 1.

Remediation activities under the License began in 1979. In August 1980, NRC informed the licensee that source material contamination, which was discovered at the Bert Avenue site in May 1980, must also be remediated. The Bert Avenue site is located three blocks north of the Harvard Avenue site and is listed separately as another site on the SDMP list.

Through the 1980s, Chemetron unsuccessfully attempted to remediate both the Bert Avenue and Harvard Avenue sites (see Attachment 1); during this time, local residents became increasingly frustrated with the lack of decommissioning progress. Local elected officials, including U.S. Representatives and U.S. Senators became involved. As a result, staff convened quarterly meetings with elected officials and Ohio State Agencies to address technical questions and coordination issues.

In January and April 1991, NRC inspectors discovered low-level uranium contamination in several buildings being used by the McGean-Rohco Company (McGean-Rohco). The McGean-Rohco site complex is a series of buildings immediately adjacent to and directly east of Chemetron's former depleted uranium processing site at Harvard Avenue. McGean-Rohco conducts ongoing chemical processing operations in these buildings. The depleted uranium contamination is considered to be from airborne releases, from the prior Chemetron operations, and from equipment, previously used by Chemetron in its operations, that was improperly decontaminated.

In response to a license condition requirement, on October 1, 1993, Chemetron submitted its site remediation plans for the Bert Avenue and Harvard Avenue sites. On November 1, 1993, Chemetron submitted a remediation plan for the contamination at the McGean-Rohco complex.

In the remediation plan, Chemetron proposed to use onsite disposal, under 10 CFR 20.2002, at both the Harvard Avenue and Bert Avenue sites, for wastes with concentrations up to the Option 2 limit in the 1981 Branch Technical Position on "Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations." For the Harvard Avenue site, the Option 2 limit was determined, by uranium solubility testing, to be 7.4 Bq/gm (200 pCi/gm) total uranium. For the Bert Avenue site, the total uranium concentration limit was determined to be 5.9 Bq/gm (161 pCi/gm), also based on uranium solubility testing. Chemetron proposed to use 1.3 Bq/gm (35 pCi/gm) total uranium -- the Option 1 limit in the 1981 Branch Technical Position -- for soils outside the disposal cells. For building and equipment surfaces, Chemetron proposed the limits in "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, and Special Nuclear Material." These limits are based on the criteria in the "Action Plan to Ensure Timely Cleanup of Site Decommissioning Management Plan Sites" (57 FR 13389). For the Bert Avenue site, solid non-radioactive wastes, under the jurisdiction of the Ohio Environmental Protection Agency (OEPA), to be placed in the same disposal cell as the radioactive waste were addressed in a site-closure/post-closure plan submitted for review and approval by OEPA.

The NRC review of the remediation plans for both the Harvard Avenue and Bert Avenue sites included an assessment of the effectiveness of Chemetron's proposed health and safety plan for performing the waste excavation and emplacement in the disposal cell, and an assessment of the dose impacts from the disposal. On August 9, 1994, NRC approved Chemetron's plan to remediate the McGean-Rohco buildings, and on June 6, 1996, staff approved the Harvard Avenue remediation plan. On February 14, 1997, staff approved the Bert Avenue remediation plan. After approval of the remediation plans, Chemetron excavated the contaminated wastes and constructed the disposal cells, as proposed in the respective remediation plans.

At the Harvard Avenue and Bert Avenue sites and in the McGean-Rohco buildings, NRC and Oak Ridge Institute for Science and Education (ORISE) staffs

performed confirmatory surveys to verify that waste concentrations were less than the limits specified in the remediation plan approval. Chemetron and Region III inspectors also conducted surveys in areas adjacent to the disposal cells both on and off site. During these confirmatory surveys, NRC and ORISE staffs observed Chemetron staff performing its final surveys. The Region III mobile analytical laboratory was extensively used to support the Bert Avenue confirmatory surveys. NRC staff worked closely with McGean-Rohco management to ensure timely release of buildings needed for ongoing McGean-Rohco operations. A total of 433 m³ (15,400 ft³) of wastes exceeding the limits for disposal in the Bert Avenue cell was shipped to the Envirocare low-level waste disposal site in Clive, Utah. Attachment 1 provides a summary of the analytical results of the final and confirmatory surveys. The Chemetron, Region III, and ORISE surveys demonstrate that the Harvard Avenue Bert Avenue sites and the McGean-Rohco buildings meet the requirements for unrestricted use.

Based on the actual average soil concentrations determined from the final surveys, the doses to a hypothetical resident farmer were recomputed. Assuming the disposal cell cover is no longer in place, the peak dose over a 1000-year period after disposal would be 0.14 mSv/yr (14 mrem/yr) for the Harvard Avenue site and 0.15 mSv/yr (15 mrem/yr) for the Bert Avenue site. These doses meet the unrestricted use limits in [10 CFR Part 20](#), Subpart E.

CONCLUSIONS:

Based on the staff review of the licensee's final surveys and the results of NRC and ORISE confirmatory surveys, the staff concludes that the Harvard Avenue and Bert Avenue sites meet the conditions for unrestricted use and termination of the license. NRC staff has coordinated its regulatory activities with the OEPA; the Ohio Department of Health (ODH); the Cuyahoga County Board of Health (CCBH); and local elected officials, throughout the decommissioning process. NRC staff intends to inform the U.S. Environmental Protection Agency, OEPA, ODH, CCBH, and Chemetron of NRC's intent to release the Harvard Avenue and Bert Avenue sites for unrestricted use and remove them from the SDMP list. Draft letters are enclosed (see [Attachments 2, 3, 4, 5, and 6](#)).

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objection.

RECOMMENDATION:

Staff requests action within 10 days. Action will not be taken until the SRM is received. We consider this action to be within the delegated authority of the Director of Nuclear Material Safety and Safeguards.

William D. Travers
Executive Director for Operations

CONTACT: T. C. Johnson, NMSS/DWM
301-415-7299

Attachments:

1. [Site History](#)
2. [Draft letter to U.S. EPA](#)
3. [Draft letter to OEPA](#)
4. [Draft letter to ODH](#)
5. [Draft letter to CCBH](#)
6. [Draft letter to Chemetron](#)

ATTACHMENT 1

CHEMETRON HARVARD AVENUE AND BERT AVENUE SITE HISTORY

Chemetron Corporation is the holder of Source Material License No. SUB-1357, originally issued on June 12, 1979, by the Nuclear Regulatory Commission (NRC) pursuant to [10 CFR Part 40](#), for possession only of depleted uranium contamination in a facility located at 2910 Harvard Avenue, Cuyahoga Heights, Ohio. The license was modified on October 1, 1987, to authorize the Licensee to possess the radioactive material at the McGean-Rohco site located between 28th and 29th Streets at Bert Avenue, Newburgh Heights, Ohio. The license was last renewed on January 10, 1990, and was due to expire on October 31, 1990. On October 1, 1990, Chemetron filed a license renewal application with NRC. Pursuant to [10 CFR 40.42\(a\)](#), the License is continuing in effect.

In 1965, the Atomic Energy Commission issued License No. SUB-852 to Chemetron Corporation, which through its McGean Unit of the Inorganic Chemical Division, manufactured catalysts containing depleted uranium. These operations were carried out between 1965 and 1972 in facilities located at the Harvard Avenue site. By February 1972, manufacture of the catalysts had been terminated, and in December 1973, the License was amended to authorize storage only for the remaining depleted uranium. No activities involving source material, other than decontamination, have been conducted at the site since Chemetron's termination of the catalyst production in 1972.

In 1975, the McGean Chemical Company, Inc., the predecessor to McGean-Rohco, Incorporated (McGean-Rohco), purchased the Harvard Avenue site.

The licensee, however, retained the license and responsibility for the depleted uranium remaining at the facility. In late 1977, the Licensee was acquired by Allegheny-Ludlum Industries, and merged into a wholly-owned subsidiary. In 1979, the Licensee obtained a new NRC License, No. SUB-1357, to remediate the Harvard Avenue site. License SUB-1357 superseded SUB-852.

Remediation activities under the license began in 1979, with the expectation that the project would be completed in about 6 months. In August 1980, NRC informed the licensee that source material contamination discovered at the Bert Avenue site in May 1980 must also be remediated.

On October 26, 1984, Allegheny International, Inc., Chemetron's parent company, provided the results of its Bert Avenue site final surveys, indicating that depleted uranium concentrations were less than 1.3 Bq/gm (35 pCi/gm), the applicable NRC unrestricted release criteria provided in the 1981 Branch Technical Position (BTP) entitled, "Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations." On January 11, 1985, Oak Ridge Associated Universities (ORAU) submitted a report of its confirmatory surveys to NRC. The ORAU confirmatory surveys indicated that contamination exceeding 1.3 Bq/gm (35 pCi/gm) was still present at the Bert Avenue site.

After additional remediation, on October 15, 1985, the Licensee requested that both the Harvard Avenue and Bert Avenue sites be released for unrestricted use. On January 29, 1986, ORAU submitted a report of its confirmatory surveys at the Harvard Avenue site to NRC, showing that radioactive contamination was still present, in excess of applicable NRC unrestricted release criteria provided in the 1981 BTP. On March 27, 1986, ORAU submitted a report of its confirmatory surveys at the Bert Avenue site to NRC. Contamination exceeding the unrestricted release criteria was found.

On February 20, 1988, Allegheny International, Inc., filed a voluntary petition under Chapter 11 in the U.S. Bankruptcy Court. On August 31, 1990, Allegheny International, Inc., requested NRC consent to transfer control of Chemetron's license to Sunbeam/Oster Company, Incorporated. Under this corporate arrangement Montey Corporation would be the direct parent of Chemetron, and Sunbeam/Oster Company would be the direct parent of Montey Corporation. The Licensee indicated, in its August 31, 1990, submittal, that it would have completed a revised remediation plan for the Harvard Avenue site by March 1, 1991. The NRC staff confirmed this schedule with a provision of the consent of transfer dated September 11, 1990, requiring the submission of a revised remediation plan for the Harvard Avenue site by March 1, 1991.

On January 6, 1989, Dr. Klaus Romer, President of McGean-Rohco, filed a [10 CFR 2.206](#) petition requesting NRC to take action to compel Chemetron to immediately commence decontamination of the Harvard Avenue site and to impose sanctions against Chemetron for its failure to carry out the decontamination. After approval of the Harvard Avenue remediation plan, on July 3, 1997, a Director's Decision was issued, in effect granting the request to compel decontamination, but denying the request to impose sanctions.

On October 2, 1990, Chemetron submitted a request for license renewal, to authorize possession of depleted uranium, in the form of uranium oxide contamination, at the Harvard Avenue and Bert Avenue sites, for a 5-year term.

On January 3 and 4, 1991, NRC conducted a safety inspection of activities authorized by License No. SUB-1357 and transmitted its inspection findings to the licensee in an NRC letter dated January 28, 1991, which included a Notice of Violation for failure to adequately survey a portion of the restricted area at the Bert Avenue site before its release for unrestricted use. NRC also requested, in a letter dated January 28, 1991, that the Licensee address NRC's concerns over low-level uranium contamination found in Buildings 14 and 20 of the McGean-Rohco complex.

From March 19 through April 15, 1991, NRC conducted special safety inspections of survey activities being conducted at the McGean-Rohco site. During the inspection, contamination of equipment and structures was found in several buildings at the McGean-Rohco site. An apparent violation of NRC requirements was identified -- loss of control of licensed material in an unrestricted area and not in storage [10 CFR 20.207(b)]. Based on these inspection findings, NRC requested that an expanded site survey be performed and a written report documenting the results of the survey be submitted to NRC by April 5, 1991. The licensee submitted its report, in two letters dated April 5, 1991, and April 12, 1991, on the status of the McGean-Rohco surveys, which indicated that seven of 11 McGean-Rohco buildings surveyed were contaminated with depleted uranium in excess of NRC limits.

On July 18, 1991, the licensee requested that license conditions be revised to establish a submittal date of August 16, 1991, for the Harvard Avenue and the Bert Avenue remediation plans.

A Notice of Violation and Proposed Imposition of Civil Penalty Notice was issued to the Licensee on August 14, 1991. The Notice of Violation addressed the licensee's failure to secure licensed material in the form of depleted uranium from unauthorized removal and failure to maintain the material under constant surveillance and immediate control. The Notice was the result of a violation identified during an NRC inspection conducted from March 19 through April 15, 1991. The inspector located depleted uranium on and in equipment and structures that was in unrestricted areas in McGean-Rohco Building Numbers 1, 3B, 3C, 4, 5B, 6, 9, 10, 11, 14, 16A, 16B, 17, 19, and 20 at 2910 Harvard Avenue, Cuyahoga Heights, Ohio. Subsequently, an Order Imposing Civil Monetary Penalty in the amount of \$7500 was served to the licensee.

On June 28, 1991, Chemetron submitted, to NRC, its "Site Characterization Report, Harvard and Bert Avenue Sites." This report was also reviewed by the Ohio Department of Health (ODH) and the Ohio Environmental Protection Agency (OEPA). On August 15, 1991, comments were transmitted to Chemetron indicating that there were substantive deficiencies in the report.

On August 16, 1991, Chemetron submitted, to NRC, the "Remediation Plan for the Harvard and Bert Avenue Sites." Comments from NRC, ODH, and OEPA were transmitted to Chemetron on December 18, 1991. The remediation plan was considered to be conceptual in nature and therefore lacked sufficient detail, and was based on an inadequate site characterization.

In November 1991, Oak Ridge Institute for Science and Education (ORISE) staff identified depleted uranium contamination at the Aluminum Company of America (ALCOA) facility immediately adjacent to and directly west of Chemetron's former depleted uranium production area. The depleted uranium contamination is considered to be from airborne releases from the prior Chemetron operations. The ALCOA facility was previously listed as a Site

Decommissioning Management Plan (SDMP) site; was remediated in 1995; and has been removed from the SDMP (see SECY-96-053).

On May 5, 1992, Chemetron and NRC entered into a Consent Order that established, as a License Condition, June 15, 1992, as the submittal date for the Final Site Characterization Report for the Harvard Avenue and Bert Avenue sites. On June 15, 1992, Chemetron submitted, to NRC, the "Final Site Characterization Report, Harvard and Bert Avenue Sites." On January 8, 1993, NRC approved the "Final Site Characterization Report, Harvard and Bert Avenue Sites."

At the Harvard Avenue site, Chemetron performed a radiological characterization of surface and subsurface soils, groundwater, surface water, and air. For soils, the average concentration found was 1.9 Bq/gm (51 pCi/gm) total uranium, and the maximum concentration was 5.9 Bq/gm (160 pCi/gm) total uranium. Groundwater analyses showed concentrations that were less than the U.S. Environmental Protection Agency (EPA) proposed Primary Drinking Water Standards. Chemetron estimated that there was about 4450 m³ (158,000 ft³) of radioactive contaminated soil that needed to be disposed of in a proposed disposal cell.

At the Bert Avenue site, Chemetron also performed a radiological characterization of surface and subsurface soils, groundwater, surface water, and air. For soils, the average concentration found was 3.3 Bq/gm (89 pCi/gm) total uranium, and the maximum concentration was 507 Bq/gm (13,700 pCi/gm) total uranium. Groundwater analyses showed concentrations that were less than EPA proposed Primary Drinking Water Standards. Chemetron estimated that there was about 13,600 m³ (482,000 ft³) of radioactive contaminated soil that needed to be disposed of in a proposed disposal cell. An additional 420 m³ (15,000 ft³) of wastes were expected to exceed the criteria for the proposed disposal cell and require disposal offsite at a licensed low-level radioactive waste disposal site. The Bert Avenue site also contained non-radioactive solid wastes under the jurisdiction of OEPA.

On May 7, 1993, Chemetron requested an amendment to its license that would establish October 1, 1993, as the date for the submittal of the Site Remediation Plan for the Harvard Avenue and Bert Avenue Sites. On October 1, 1993, Chemetron submitted its "Site Remediation Plan, Chemetron Remediation Project, Harvard Avenue and Bert Avenue Sites." However, the submittal did not contain the final radiation survey plan section, the safety analysis section, and the dose assessment section. On October 26, 1993, NRC issued a Confirmatory Order to Chemetron requiring that the final radiation survey plan section be submitted, to NRC, by November 1, 1993, and the safety analysis and dose assessment section be submitted, to NRC, by November 15, 1993. On November 1, 1993, Chemetron submitted the final radiation survey plan section, and on November 11, 1993, Chemetron submitted the safety analysis and the dose assessment sections. Also, on November 1, 1993, Chemetron submitted a remediation plan for the contamination at the McGean-Rohco complex. On March 24, 1994, Chemetron submitted a request to amend its License to authorize remediation in accordance with its "Site Remediation Plan."

On April 4, 1994, Chemetron requested NRC to separately review the remediation of the McGean-Rohco buildings so that remediation could begin as quickly as possible. After review of the portions of the Chemetron Final Remediation Plan for the Harvard Avenue and Bert Avenue sites that addressed the McGean-Rohco building remediation, NRC staff published, in the Federal Register, on August 5, 1994, a Finding of No Significant Impact and an environmental assessment for the McGean-Rohco complex. On August 9, 1994, NRC staff issued Amendment 4 to the Chemetron License authorizing Chemetron to conduct the McGean-Rohco building remediation. On August 9, 1994, NRC staff also issued a Safety Evaluation Report for the proposed remediation of the McGean-Rohco complex.

On December 5, 1994, Chemetron submitted its "Final Site Closure/Post-Closure Plan, Bert Avenue" to OEPA. This submittal addressed the non-radioactive solid wastes under OEPA's jurisdiction.

On February 28, 1995, Chemetron submitted Revision 1 to its "Site Remediation Plan, Chemetron Remediation Project, Harvard Avenue and Bert Avenue Sites." This revision incorporated modifications to the originally submitted "Site Remediation Plan," from response letters to NRC comments, dated February 7, 1994; March 2, 1994; April 15, 1994; July 8, 1994; July 22, 1994; and December 19, 1994.

On May 18, 1995, Chemetron requested NRC staff to expedite and separately review the remediation of the Harvard Avenue site so that remediation would not be delayed because of the required OEPA review of the solid waste issues at the Bert Avenue site, under OEPA's jurisdiction. The staff published a Finding of No Significant Impact, and an environmental assessment for the Harvard Avenue remediation in the Federal Register, on June 6, 1996. On June 7, 1996, the staff issued Amendment 5 to the Chemetron license authorizing Chemetron to conduct the Harvard Avenue remediation. On June 7, 1996, the staff also issued a Safety Evaluation Report for the proposed Harvard Avenue remediation.

On February 10, 1997, the staff published a Finding of No Significant Impact, and an environmental assessment for the Bert Avenue remediation in the Federal Register. On February 14, 1997, the staff issued Amendment 6 to the Chemetron license authorizing Chemetron to conduct the Bert Avenue remediation. On February 14, 1997, the staff also issued a Safety Evaluation Report for the proposed Bert Avenue remediation.

In September and October 1996, NRC and ORISE staffs performed confirmatory surveys at the Harvard Avenue disposal cell. During these surveys, NRC and ORISE staffs observed Chemetron personnel performing its final surveys. On November 22, 1996, Chemetron submitted a final survey report for the Harvard Avenue disposal cell. The maximum in-cell soil concentration found was 2.4 Bq/gm (64.8 pCi/gm), with an average of 1.2 Bq/gm (32.7 pCi/gm). All other survey measurements from the cell cap material and areas outside the disposal cell were less than 1.3 Bq/gm (35 pCi/gm). NRC's confirmatory surveys were documented in an inspection report dated December 6, 1996. The ORISE confirmatory surveys were documented in a letter report dated December 17, 1996. The maximum concentration found in samples collected from the disposal cell was 1.7 Bq/gm (45.4 pCi/gm). All other survey measurements from areas outside the disposal cell were less than the approved limits and met the requirements for unrestricted use.

Chemetron submitted final survey reports for the McGean-Rohco buildings, equipment, and outdoor areas on and adjacent to the McGean-Rohco property on the dates in the following table:

McGean-Rohco Building Final Survey Report Submittal Dates

January 4, 1995	March 16, 1995	March 29, 1995
April 6, 1995	April 12, 1995	April 28, 1995
May 4, 1995	July 17, 1995	September 18, 1995
December 1, 1995	December 7, 1995	January 22, 1996
March 18, 1996	May 31, 1996	June 13, 1996
August 9, 1996	September 23, 1996	September 30, 1996
November 22, 1996	January 13, 1997	April 8, 1997.

NRC and ORISE staffs conducted confirmatory surveys of the McGean-Rohco buildings, equipment, and outdoor areas on and adjacent to the McGean-Rohco property, as documented in reports dated as shown in the following table:

McGean-Rohco Confirmatory Survey Report Dates

August 25, 1994	October 4, 1994	January 25, 1995
June 16, 1995	November 16, 1995	July 9, 1996
December 6, 1996	December 27, 1996	May 19, 1997
November 5, 1998.		

The Chemetron surveys and NRC and ORISE confirmatory surveys demonstrated that the McGean-Rohco buildings, equipment, and outdoor areas met the limits in "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, and Special Nuclear Material" and the Option 1 limit in the 1981 Branch Technical Position. In October 1998, NRC inspectors verified that a container of waste being stored in Building 16 had been shipped for disposal and no contamination was present.

On April 7, 1998, October 5, 1998, November 3, 1998, and November 30, 1998, Chemetron submitted its final survey reports for the Bert Avenue site. The maximum in-cell soil concentration found was 15.4 Bq/gm (416 pCi/gm) with an average for the entire cell of 1.7 Bq/gm (47 pCi/gm). The maximum concentration sample was averaged with four other samples from the same 10-meter (32.8 ft) by 10-meter (32.8 ft) grid. The average concentration for the grid was 5.7 Bq/gm (153 pCi/gm) and met the elevated hot-spot criteria in NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination." All other survey measurements from onsite and offsite areas outside the disposal cell were less than the approved limits.

On August 14, 1997, ORISE provided its confirmatory survey report for the areas it surveyed at the Bert Avenue site, and on November 5, 1998, Region III issued its confirmatory survey report. The results were consistent with Chemetron sample results. The average of all NRC samples for the entire cell was 1.8 Bq/gm (51 pCi/gm). All other survey measurements from areas outside the disposal cell were less than the approved limits. Chemetron's final surveys and the NRC and ORISE confirmatory surveys demonstrated that the Bert Avenue activity levels met NRC limits for unrestricted use, as documented in "Action Plan to Ensure Timely Cleanup of Site Decommissioning Management Plan Sites" (57 FR 13389).

ATTACHMENT 2

Mr. Stephen D. Luftig, Director
Office of Emergency and Remediation Response
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Dear Mr. Luftig:

This letter is to inform the U.S. Environmental Protection Agency (EPA **EXIT** NEI) that the U.S. Nuclear Regulatory Commission (NRC) is preparing to authorize release of land and buildings at Chemetron Corporation's Harvard Avenue site in Cuyahoga Heights, Ohio, and Bert Avenue site in Newburgh Heights, Ohio, for unrestricted use.

The staff is providing this information to EPA in accordance with NRC policy contained in the "Action Plan to Ensure Timely Cleanup of Site Decommissioning Management Plan Sites" (57 FR 13389), which states that NRC will inform EPA about specific decommissioning actions at Site Decommissioning Management Plan (SDMP) sites.

In 1965, the Atomic Energy Commission issued a license to Chemetron Corporation, which manufactured catalysts containing depleted uranium. These operations were carried out between 1965 and 1972 in facilities located at the Harvard Avenue site. By February 1972, manufacture of the catalysts had been terminated, and in December 1973, the License was amended to authorize storage only for the remaining depleted uranium. No activities involving source material, other than decontamination, have been conducted at the site since Chemetron Corporation's termination of the catalyst production in 1972. Remediation activities under the License began in 1979. However, these early attempts were unsuccessful in fully remediating the site.

In August 1980, NRC informed the licensee that source material contamination, which had been discovered at the Bert Avenue site in May 1980 also had to be remediated. The Bert Avenue site is located three blocks north of the Harvard Avenue site and is listed separately as another site on the SDMP list. Non-radioactive solid wastes were also found at the Bert Avenue site.

From 1995 to 1998, Chemetron Corporation performed remediation and surveys at the Harvard Avenue and Bert Avenue sites. Waste disposal cells were constructed at these sites for wastes with concentrations less than the Option 2 limit in the 1981 Branch Technical Position entitled "Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations." NRC inspectors and Oak Ridge Institute for Science and Education (ORISE) staff observed Chemetron Corporation staff performing final surveys and also performed independent confirmatory surveys. A total of 433 cubic meters (15,400 cubic feet) of wastes exceeded the limits for the onsite disposal cell at the Bert Avenue site and was shipped to the Envirocare low-level radioactive waste site in Clive, Utah. The non-radioactive solid wastes have also been remediated in accordance with Ohio Environmental Protection Agency requirements. Based on Chemetron Corporation's final surveys and the results of NRC and ORISE confirmatory surveys, NRC concludes that the sites have been properly remediated and now meet NRC criteria for unrestricted use.

The project manager for the Harvard Avenue and Bert Avenue sites is Timothy C. Johnson. If you have any questions on this matter, please contact him at 301-415-7299.

Sincerely,
Carl J. Paperiello, Director
Office of Nuclear Material Safety and Safeguards

Docket No. 040-08724
License No. SUB-1357

cc: Chemetron distribution list

ATTACHMENT 3

Mr. William Skowronski
Ohio Environmental Protection Agency
2110 East Aurora Road
Twinsburg, OH 44087-1969

Dear Mr. Skowronski:

This letter is to inform the Ohio Environmental Protection Agency (OEPA) that the U.S. Nuclear Regulatory Commission (NRC) is preparing to authorize release of land and buildings at Chemetron Corporation's Harvard Avenue site in Cuyahoga Heights, Ohio, and Bert Avenue site in Newburgh Heights, Ohio, for unrestricted use.

In 1965, the Atomic Energy Commission issued a license to Chemetron Corporation, which manufactured catalysts containing depleted uranium. These operations were carried out between 1965 and 1972 in facilities located at the Harvard Avenue site. By February 1972, manufacture of the catalysts had been terminated, and in December 1973, the License was amended to authorize storage only for the remaining depleted uranium. No activities involving source material, other than decontamination, have been conducted at the site since Chemetron Corporation's termination of the catalyst production in 1972. Remediation activities under the License began in 1979. However, these early attempts were unsuccessful in fully remediating the site.

In August 1980, NRC informed the licensee that source material contamination, which has been discovered at the Bert Avenue site, in May 1980 also had to be remediated. The Bert Avenue site is located three blocks north of the Harvard Avenue site and is listed separately as another site on the Site Decommissioning Management Plan list. Non-radioactive solid wastes were also found at the Bert Avenue site.

From 1995 to 1998, Chemetron Corporation performed remediation and surveys at the Harvard Avenue and Bert Avenue sites. Waste disposal cells were constructed at these sites for wastes with concentrations less than the Option 2 limit in the 1981 Branch Technical Position entitled "Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations." NRC inspectors and Oak Ridge Institute for Science and Education (ORISE) staff observed Chemetron Corporation staff performing final surveys and also performed independent confirmatory surveys. A total of 433 cubic meters (15,400) cubic feet of wastes exceeded the limits for the onsite disposal cell at the Bert Avenue site and was shipped to the Envirocare low-level radioactive waste site in Clive, Utah. The non-radioactive solid wastes have also been remediated in accordance with OEPA requirements. Based on Chemetron Corporation's final surveys and the results of NRC and ORISE confirmatory surveys, NRC concludes that the sites have been properly remediated and now meet NRC criteria for unrestricted use.

Over the course of the Chemetron Corporation remediation projects, we have very much appreciated the support and coordination provided by you and Mr. Jerry Parker, your project coordinator. Without your support this project could not have been successfully completed.

If you have any questions, please contact the NRC project manager, Mr. Timothy C. Johnson, at 301-415-7299.

Sincerely,
Carl J. Paperiello, Director
Office of Nuclear Material Safety and Safeguards

Docket No. 040-08724
License No. SUB-1357

cc: Chemetron distribution list

ATTACHMENT 4

Mr. Roger L. Suppes
Radiological Health Program
Ohio Department of Health
35 East Chestnut
Columbus, OH 43215

Dear Mr. Suppes:

This letter is to inform the Ohio Department of Health that the U.S. Nuclear Regulatory Commission (NRC) is preparing to authorize release of land and buildings at Chemetron Corporation's Harvard Avenue site in Cuyahoga Heights, Ohio, and Bert Avenue site in Newburgh Heights, Ohio, for unrestricted use.

In 1965, the Atomic Energy Commission issued a license to Chemetron Corporation, which manufactured catalysts containing depleted uranium. These operations were carried out between 1965 and 1972 in facilities located at the Harvard Avenue site. By February 1972, manufacture of the catalysts had been terminated, and in December 1973, the License was amended to authorize storage only for the remaining depleted uranium. No activities involving source material, other than decontamination, have been conducted at the site since Chemetron Corporation's termination of the catalyst production in 1972. Remediation activities under the License began in 1979. However, these early attempts were unsuccessful in fully remediating the site.

In August 1980, NRC informed the licensee that source material contamination, which has been discovered at the Bert Avenue site, in May 1980 also had to be remediated. The Bert Avenue site is located three blocks north of the Harvard Avenue site and is listed separately as another site on the Site Decommissioning Management Plan list. Non-radioactive solid wastes were also found at the Bert Avenue site.

From 1995 to 1998, Chemetron Corporation performed remediation and surveys at the Harvard Avenue and Bert Avenue sites. Waste disposal cells were constructed at these sites for wastes with concentrations less than the Option 2 limit in the 1981 Branch Technical Position entitled "Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations." NRC inspectors and Oak Ridge Institute for Science and Education (ORISE) staff observed Chemetron Corporation staff performing final surveys and also performed independent confirmatory surveys. A total of 433 cubic meters (15,400 cubic feet) of wastes exceeded the limits for the onsite disposal cell at the Bert Avenue site and was shipped to the Envirocare low-level radioactive waste site in Clive, Utah. The non-radioactive solid wastes have also been remediated in accordance with Ohio Environmental Protection Agency requirements.

Based on Chemetron Corporation's final surveys and the results of NRC and ORISE confirmatory surveys, NRC concludes that the sites have been properly remediated and now meet NRC criteria for unrestricted use.

Over the course of the Chemetron Corporation remediation projects, we have very much appreciated the support and coordination provided by you and Ms. Celeste Lipp, your project coordinator. Without your support this project could not have been successfully completed.

If you have any questions, please contact the NRC project manager, Mr. Timothy C. Johnson, at 301-415-7299.

Sincerely,
Carl J. Paperiello, Director
Office of Nuclear Material Safety and Safeguards

Docket No. 040-08724
License No. SUB-1357

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ATTACHMENT 5

Mr. Timothy Horgan
Cuyahoga County Board of Health
One Playhouse Square
1375 Euclid Avenue
Cleveland, OH 44115

Dear Mr. Horgan:

This letter is to inform the Cuyahoga County Board of Health that the U.S. Nuclear Regulatory Commission (NRC) is preparing to authorize release of land and buildings at Chemetron Corporation's Harvard Avenue site in Cuyahoga Heights, Ohio, and Bert Avenue site in Newburgh Heights, Ohio, for unrestricted use.

In 1965, the Atomic Energy Commission issued a license to Chemetron Corporation, which manufactured catalysts containing depleted uranium. These operations were carried out between 1965 and 1972 in facilities located at the Harvard Avenue site. By February 1972, manufacture of the catalysts had been terminated, and in December 1973, the License was amended to authorize storage only for the remaining depleted uranium. No activities involving source material, other than decontamination, have been conducted at the site since Chemetron Corporation's termination of the catalyst production in 1972. Remediation activities under the License began in 1979. However, these early attempts were unsuccessful in fully remediating the site.

In August 1980, NRC informed the licensee that source material contamination, which had been discovered at the Bert Avenue site, in May 1980 also had to be remediated. The Bert Avenue site is located three blocks north of the Harvard Avenue site and is listed separately as another site on the SDMP list. Non-radioactive solid wastes were also found at the Bert Avenue site.

From 1995 to 1998, Chemetron Corporation performed remediation and surveys at the Harvard Avenue and Bert Avenue sites. Waste disposal cells were constructed at these sites for wastes with concentrations less than the Option 2 limit in the 1981 Branch Technical Position entitled "Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations." NRC inspectors and Oak Ridge Institute for Science and Education (ORISE) staff observed Chemetron Corporation staff performing final surveys and also performed independent confirmatory surveys. A total of 433 cubic meters (15,400 cubic feet) of wastes exceeded the limits for the onsite disposal cell at the Bert Avenue site and was shipped to the Envirocare low-level radioactive waste site in Clive, Utah. The non-radioactive solid wastes have also been remediated in accordance with Ohio Environmental Protection Agency requirements. Based on Chemetron Corporation's final surveys and the results of NRC and ORISE confirmatory surveys, NRC concludes that the sites have been properly remediated and now meet NRC criteria for unrestricted use.

Over the course of the Chemetron Corporation remediation projects, we have very much appreciated the support and coordination provided by you, Mr. Irv Ball, Mr. John Romano, and Mr. Eric Zgodzinski, your project coordinator. Without your support this project could not have been successfully completed.

If you have any questions, please contact the NRC project manager, Mr. Timothy C. Johnson, at 301-415-7299.

Sincerely,
Carl J. Paperiello, Director
Office of Nuclear Material Safety and Safeguards

Docket No. 040-08724
License No. SUB-1357

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ATTACHMENT 6

Mr. David C. Fannin
Vice President
Chemetron Corporation
1615 South Congress Avenue, Suite 200
Delray Beach, FL 33444

Dear Mr Fannin:

From 1995 to 1998, Chemetron Corporation performed remediation and surveys at the Harvard Avenue and Bert Avenue sites. Waste disposal cells were constructed at these sites for wastes with concentrations less than the Option 2 limit in the 1981 Branch Technical Position entitled "Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations." Other areas of the sites, including buildings and equipment at the McGean-Rohco Company, were remediated in accordance with criteria specified in the "Action Plan for Ensuring Timely Cleanup of Site Decommissioning Management Plan Sites" (Action Plan) (57 FR 13889). U.S. Nuclear Regulatory Commission (NRC) inspectors and Oak Ridge Institute for Science and Education (ORISE) staff observed Chemetron Corporation staff performing final surveys and also performed independent confirmatory surveys. A total of 433 cubic meters (15,400 cubic feet) of wastes exceeded the limits for the onsite disposal cell at the Bert Avenue site and was shipped to the Envirocare low-level radioactive waste site in Clive, Utah. The non-radioactive solid wastes at the Bert Avenue site have also been remediated in accordance with Ohio Environmental Protection Agency requirements. Based on Chemetron Corporation's final surveys and the results of NRC and ORISE confirmatory surveys, NRC concludes that the sites have been properly remediated and now meet NRC criteria for unrestricted use as provided in the Action Plan, and the license can be terminated.

As provided in the Action Plan, this is the final action regarding the former Chemetron Corporation Harvard Avenue and Bert Avenue sites. NRC will not require any additional decommissioning, in response to future NRC criteria or standards, unless additional contamination or noncompliance with remediation commitments is found, indicating a significant threat to public health and safety.

If you have any questions about this matter, please contact the NRC project manager, Mr. Timothy C. Johnson, at 301-415-7299.

Sincerely,
Carl J. Paperiello, Director
Office of Nuclear Material Safety and Safeguards

Docket No. 040-08724
License No. SUB-1357

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