

May 18, 1995



**Chevron**

**Chemical**

Environment & Health Protection  
6001 Bollinger Canyon Road  
San Ramon, CA 94583

United States Nuclear Regulatory Commission  
801 Warrenville Road  
Lisle, IL 60532

**Harshaw Chemical Plant "C" Site**

Attention: Mr. Bill Snell

It was good talking with you the other day. As I mentioned we have select Foster Wheeler Environmental Corporation to perform the work at the above mentioned site. Enclosed please find, as Attachment I and II, our response to your comments on the previously submitted Decommissioning and Demolition Plan. Also attached are two copies of the site specific Radiological Health and Safety Plan. This plan was prepared by Foster Wheeler Environmental (previously EBASCO) and is based on plans that received NRC review and approval no less than five times.

As we discussed, I plan on being at your office on June 8th at 1:00 PM to discuss any comments and/or questions you may have about this submittal. We continue to look forward to working with the NRC on this project and believe that it can be a win for all parties involved. Thank you in advance for a timely review of these documents and again please feel free to contact me at (510) 842-5882 with any comments or questions.

Sincerely,

R. William Potter  
Senior Environmental Projects Engineer

RWP:rwp

Attachments

cc: F. Rock - Foster Wheeler  
M. W. Roberts - Engelhard Corp.  
L. Max Scott - ADA Consultants  
P. Brandt - NFS

C/29

*ATTACHMENT I*

### ***NRC Region III, Comment 1:***

#### **Page 2-2, Section 2.1.1, Residual Radioactivity in Soil**

No specific pCi/g criteria is provided for remediating residual activity in soil other than to state that remediation would be in accordance with the October 1981 Branch Technical Position, *Disposal or Onsite Storage of Residual Thorium or Uranium from Past Operations*. Section 2.0 of the plan describes the onsite radioactive contamination as "natural uranium and its decay daughters." This would imply a level of 10 pCi/g would be used. In comparison, the Engelhard plan describes the onsite radioactive contamination as "normal uranium (refined uranium which is neither enriched nor depleted in the  $^{235}\text{U}$  isotope including its short half-life daughters -  $^{234}\text{Th}$  and  $^{234}\text{Pa}$ )." The preface of the Argonne report reported "the contaminating material seemed to be normal uranium exclusively." The Chemical Waste Management Report states the contaminant was "natural uranium and its decay daughter thorium." The Engelhard plan also states that the remediation level for residual soil activity will be 30 pCi/g, "(it is assumed that normal uranium is no more hazardous than enriched uranium; therefore the limit of 30 pCi/g should be more than adequate to meet the exposure guidelines)."

The Chevron Decommissioning Plan must contain the specific criteria that will be used for remediating activity in soil. The values should be consistent between the Chevron and Engelhard plans. Because of the differences in what has been provided by both plans as to the nature of the activity (e.g., natural uranium versus normal uranium), a technical justification will need to be provided to support a value in excess of 10 pCi/g, the criteria for natural uranium.

#### **Response to NRC Region III Comment 1:**

The principal radioactive material of concern at the Harshaw Chemical site is uranium of normal isotopic composition, with no long lived progeny present. This contaminant has the short lived progeny of U-238 (Th-234 and Pa-234) in secular equilibrium. The radioactive material was deposited at the site from the handling and processing of "yellowcake"; a concentrate from the chemical extraction of uranium from ores. This was verified by the analysis of four samples taken from the Plant C building. The results are provided in ATTACHMENT II. There is no historical evidence that supports the processing of uranium ore materials, i.e., containing long lived progeny.

The basis for selecting a residual uranium radioactivity level in soil is the October 1981 USNRC Branch Technical Position, *Disposal or Onsite Storage of Residual Thorium or Uranium from Past Operations*. Since no long lived progeny are present, the depleted or

enriched uranium values (35 and 30 pCi/g, respectively) can be considered for this project.

These values were derived considering the U-238, U-235 and U-234 isotopic composition and the fact that the long lived progeny (daughters) have been removed in the milling/extraction process.

Depleted uranium is depleted in the isotope U-235 compared to the isotopic composition of naturally occurring uranium. Likewise, enriched uranium has a greater concentration of U-235 compared to the isotopic composition of naturally occurring uranium. For naturally occurring uranium that has been processed through a milling operation the only nuclides of importance in the dose calculations are U-238 and U-234 (i.e., U-235 is not a significant contributor). Also, U-235 is not a significant contributor in the depleted uranium scenario. Since the U-238 and U-234 effective dose equivalent factors for a residential scenario differ by only 3% (Federal Guidance Report No. 11, EPA-520/1-88-020, September, 1988), uranium of normal isotopic composition and without long lived progeny (the contaminant of concern at this site) will be about equal (i.e. within 3%) to the dose calculations for depleted uranium. Therefore, the value of 35 pCi/g is recommended as the criteria for allowable residual uranium soil levels at the site.

OK

Same as  
HPP05-292

The Plant C Decontamination and Decommissioning project will involve the acquisition of many sample matrices for analysis of gamma emitting radionuclides by low level intrinsic germanium (HpGe) gamma spectroscopy. Gamma spectroscopy analysis reports will specify both the parent and progeny radionuclide concentrations to confirm and document the presence of normal uranium constituents.

***NRC Region III, Comment 2:***

**Page 2-2, Section 2.1.2, 4th paragraph**

The plan mentions a "cleaning team." Please provide additional detail as to the function of this team, the extent of cleaning, and how they intend to carry out their work. In particular, discuss what controls will be in place to ensure that contaminated material is not being removed unsurveyed.

**Response to NRC Region III, Comment 2:**

Cleaning (decontamination) of the building will be physically performed by Foster Wheeler Environmental Corporation and its specialty subcontractors. The key site personnel have extensive experience in the planning, management, and implementation of remediation projects in hazardous and radioactive environments. The project team includes an experienced radiological engineering and services firm who will integrate the radiological health and safety program with the decontamination activities, as well as provide the radiation measurement and survey function. Some of the major elements of the radiation health and safety program includes:

- ✓ Training includes an 8-hour on-site program that addresses requirements in 10CFR19.12 and site specific needs. In addition each worker will have received training in accordance with 29CFR1910.120.
- ✓ Dosimetry (TLD) and bioassay personnel monitoring program.
- ✓ Respiratory protection program.
- ✓ Site radiological controls supervisor (RCS) and experienced radiation control technicians (RCT) responsible for radiation safety program elements and specific survey requirements.
- ✓ Contamination controls and area posting or barrier controls for entry and egress to and from potentially contaminated areas. Control point survey and Radiation Work Permit (RWP) requirements for work in controlled areas.
- ✓ Industry recognized radiation detection instrumentation with applicable ANSI calibration and associated NIST traceable radiation sources for response checks.



The typical decontamination methodology and specialized tooling concepts that are planned to be utilized are summarized as follows:

- ✓ HEPA filtered vacuums, portable HEPA ventilation units and work area containment, as required, for general surface cleaning and maintenance of filtered air ventilation exhaust and control in decontamination work areas.
- ✓ Abrasive decontamination tooling, e.g., floor scabblers, needle scalers, etc. with point of contact ventilation exhaust shrouds for air capture and exhaust through HEPA filtered systems.
- ✓ Work area posting and radiological controls to verify that radiological activity is not inadvertently transferred to adjacent work areas or the environment. -- Personnel protective clothing and respiratory protection as required by the task RWP.
- ✓ An effective program for the identification, characterization, packaging, temporary storage, and shipment of radioactive materials to an authorized disposal facility.

The project team will implement an effective program for the identification, remediation, and management of all radioactive material issues during the decontamination and demolition process. All materials, equipment and personnel will be subject to contamination surveys for radiological release at the point of probable contact, e.g., work area within the building, and at the contamination control point upon final egress from the radiologically controlled area.

*Didn't answer concern.  
Cleaning team comes before gridding  
which is before characterization survey.  
Implication is "cleaning" is being performed  
prior to any surveys.*

***NRC Region III, Comment III:***

**Page 2-2, Section 2.1.2, Decommissioning Tasks**

This section states that the contractor will provide a Site Safety and Health Plan and a Radiological Characterization Survey Plan prior to mobilization of the decommissioning effort. Both of these plans will need to be provided for review and approval before approval of the Decommissioning Plan.

The Characterization Plan is key in that it is intended to provide a substantial portion of the data in support of the Final Radiological Status Survey. Because the purpose of a characterization study is to identify areas needing remediation, statistically rigorous data collection comparable to that required for a final termination survey is not necessary if the results are sufficient to guide remediation to levels permitting release of the site for unrestricted use. However, when characterization data is to be applied to the final survey, if they show compliance with the criteria for unrestricted release, then you must specify their collection follows the guidance in NUREG/CR-5849. Please provide your characterization survey plan consistent with NUREG/CR5849, "Manual for Conducting Radiological Surveys in Support of License Termination." Please also provide a copy of the Site Safety and Health plan.

**Response to NRC Region III, Comment 3:**

Decommissioning of Plant C will consist of decontaminating the building, removing and disposing of all materials contained within or composing the building structure. Therefore, the only material that will remain on site after the completion of the decommissioning is the residual soil under the existing building floor slab and within the building footprint.

Since this is the case, the characterization of the building is not expected to provide any information that is of value to the termination survey. The characterization survey is needed only to indicate which parts of the building need to be decontaminated prior to the demolition and deconstruction and to specify the appropriate levels of protection for the workers, the work area, and the environment during the decontamination process. Two prior surveys of the building; (1) Radiological Survey of the Harshaw Chemical Company, Argonne National Laboratory, April 1984, (ANL84) and (2), The Plant C Site Assessment Report, Chemical Waste Management, Inc., July 1992, (CWM92), provide significant radiation survey data on the extent and magnitude of building contamination. The Decontamination and Decommissioning Plan is intended to supplement this

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*1000 Harvard Avenue  
Cleveland, Ohio*

information by performing a pre-decontamination survey of each work area prior to the decontamination activity in that area.

The pre-decontamination survey would consist of work area screening surveys for the measurement of activity on floors, walls, ceilings, and surfaces of structural components. Such surveys would be performed with appropriate radiation detection systems as large area gas flow proportional detectors or equivalent instrumentation. Surveys will be performed to detect the beta-gamma radiation component of the normal uranium radioactivity to achieve maximum sensitivity for these screening surveys.

Statistical techniques would then be used to see if decontamination is required and defines decontamination worker protection requirements and engineering controls. In summary, the 'characterization' plan is designed as a pre-decontamination survey program intended to supplement extant survey data (ANL84 and CWM92) and define worker protection and engineering controls for decontamination activities.

Decontamination would then be performed in specific work areas and pre-demolition radiation surveys conducted. A one-tailed tolerance test<sup>1</sup> would then be used to be sure that the areas decontaminated would be suitable for demolition. The tests will be designed to provide a specified level of confidence that materials would meet one of the following criteria:

Disposition of Materials	Remediation Release Criteria (1)
Structural steel or other smooth surfaced materials for disposal or recycle.	95% chance that 95% of the surfaces meet average residual surface contamination criteria of regulatory criteria.
Rubble to be disposed of in a construction or sanitary landfill.	95% chance that 95% of the surfaces of the brick walls and concrete floors/ceilings are less than 15,000 dpm per 100 cm <sup>2</sup> .

(1) (NRC87) Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material, USNRC, August 1987, Table 1, Acceptable Surface Contamination Levels.

These criteria would only be used to decide when the respective surfaces are ready for demolition. Work areas that have been assessed as decontaminated by pre-demolition surveys, will be isolated and secured to preclude recontamination or cross-contamination by decontamination activities in adjacent areas. Upon completion of decontamination and acceptance of pre-demolition surveys, demolition activities will be initiated.

<sup>1</sup> "The Use of One-Sided Tolerance Tests for Surveys During Decontamination and Decommissioning," "Proceedings of the Eighth Annual Oak Ridge Model Conference on Waste Management and Environmental Restoration, October 19-22, 1992"



Demolition of the building masonry materials will be performed in a sequential manner as that done for the decontamination activity, i.e., working from the roof of the building down to the ground level.

Radiation monitoring activities will continue throughout the demolition activity. The monitoring activity verifies that appropriate worker and environmental controls are in place. Additionally, the radiation monitoring will be used to investigate areas and surfaces that have been uncovered during the demolition process that were not accessible during the decontamination activity.

Demolition of the masonry materials will be accomplished by dismantling and rubbing the concrete ceilings, brick walls, and concrete/brick floor. The rubblized materials will be relocated to a suitable laydown area for post-demolition sampling.

Large volume samples of the rubblized materials will be acquired and analyzed by low level intrinsic germanium (HpGe) gamma spectroscopy to verify that the average radioactivity concentration is less than the unrestricted release criterion of 35 pCi per gram of total uranium radioactivity. The pre-demolition criteria of this material, i.e., 95% of the material is less than 15,000 dpm per 100cm<sup>2</sup>, guarantees that the rubblized masonry materials will achieve the acceptable residual concentration criteria for unrestricted release and ultimately demonstrate residual concentrations much lower than the acceptable residual concentration, thereby ensuring the ALARA attribute for disposal of radioactive materials. This can be demonstrated by the following examples:

OK ✓ **Case 1:** A 2"x 4"x 8" brick with a density of 2.0 gm/cm<sup>3</sup> contaminated on one 2" x 8" face could have no more than 3.3 pCi per gram when rubbled, and this could only occur if the entire surface was at the maximum level permitted in the pre-demolition survey. In actuality, 95% of the population would be less than 15,000 dpm per 100cm<sup>2</sup>, so the actual concentration of uranium in the rubble would be much less than 3.3 pCi per gram.

OK ✓ **Case 2:** A 6" thick concrete (2.4 gm/cm<sup>3</sup>) slab contaminated on both sides at 15,000 dpm per 100cm<sup>2</sup> would have a concentration of only 3.7 pCi per gram when rubbled. While this is substantially less than the residual limit of 35 pCi per gram, the actual concentration will be much less since there is a 95% probability that 95% of the population are below this value of 3.7 pCi per gram.

Dismantlement of the building structural steel will be done concurrent with the demolition of concrete and masonry materials. Steel surfaces will have been decontaminated to the average allowable residual contamination criteria of NRC87 or have been segmented and/or isolated for ultimate disposal as radioactive material. Previously inaccessible surfaces will be surveyed as they are uncovered during the

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1000 Harvard Avenue  
Cleveland, Ohio

dismantlement process. The release survey criteria for structural steel and other similar non-porous materials will be a 95% probability that 95% of the surfaces meet the average acceptable residual contamination levels of NRC87. Therefore, based on the proposed pre-demolition survey criteria of building materials discussed above, masonry rubble and structural steel can be surveyed, sampled, and determined eligible for unrestricted release at residual levels well below the applicable concentration limits and in accordance with the ALARA concept.

There are localized areas within the building that represent significant deviations from the average low level contamination levels these areas normally inaccessible, or components that may contain elevated radioactivity. Typical examples of these types of localized elevated areas and components may include expansion joints, floor cracks and penetrations, floor drains, floor surface mortar joints, etc.

The initial pre-decontamination radiation survey activity upon mobilization will be designed to perform a supplemental definition of contaminated areas in order to confirm existing contamination areas, define significant areas of elevated radioactivity and surface radioactivity traps, and further define the migration of radioactivity into masonry materials.

Surface areas and inaccessible areas of significantly elevated contamination will be investigated and remediated in consideration of the relative effort required to decontaminate, or remove and dispose of the contaminated material. In many cases, it may be more efficient to remove or dismantle localized elevated radioactivity traps and immediately package as radioactive material, if the effort to continue remediation effort can not be justified. In any event, areas or fixtures that are determined to be significantly elevated will be excluded from consideration as part of the pre-demolition surface area surveys and will be remediated on a case by case basis.

Ultimately, the only original site material to remain on-site is the soil volume under the building floor slab that meets the average soil concentration limit of 35 pCi per gram of total uranium radioactivity.

The next decontamination activity represents the survey, sampling, and excavation of potentially contaminated soil under the building slab footprint. The survey and sampling methodology for this activity will be in accordance with the guidelines of NUREG/CR-5849, Manual for Conducting Radiation Surveys in Support of License Termination.

A copy of the requested Site Safety and Health Plan is attached to this transmittal.

***NRC Region III, Comment 4:***

**Page 3-12, Section 3.5, Radioactive Waste Management**

This section discusses the temporary onsite storage of radioactive material generated during the decommissioning operation. Be advised that it is our position that if radioactive material can not be shipped offsite within 60 days of approving the final termination survey report (which would authorize unrestricted release of the site), we may require you to apply for a license to store the material.

**Response to NRC Region III, Comment 4:**

A key goal of the project is to minimize the generation and on-site storage of radioactive materials during the decontamination and dismantlement activity. It is planned that materials will be accumulated and properly packaged, characterized and manifested to allow for one or more shipments of radioactive materials to the designated disposal site well before the 60 days have elapsed from approval of the final termination survey report. If plans to expediently ship radioactive materials are compromised by site or disposal facility issues, Chevron will work with the USNRC to identify technical alternatives up to and including on-site storage.

***NRC Region III, Comment 5:***

**General Comment**

The lack of a site map makes it difficult to visualize the layout of the site. Please provide a figure showing the site.

**Response to NRC Region III, Comment 5:**

ATTACHMENT II is a site map indicating the location of Plant C within the Engelhard complex.

**ATTACHMENT II**

1348 CHIPPEHAM DRIVE  
BAYON BOUGE, LOUISIANA 70808

504-385-4400

May 5, 1995

Mr. Andy Kopas  
Engelhard Corporation  
120 Pine Street  
Elyria, OH 44035

Mr. William Potter  
Chevron Chemical Company  
6601 Bollinger Canyon Road  
San Ramon, CA 94583

**Subject:** Building G1, Engelhard Corporation Harvard-Denison Plant

Dear Messrs. Kopas and Potter:

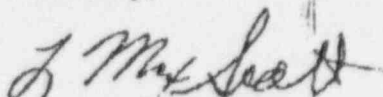
Attached are the results of the analyses of samples collected to determine if the uranium in and around the subject building was processed uranium that had not been enriched or depleted in  $^{235}\text{U}$ .

The samples were collected by AmeriWaste Environmental and shipped to me. The samples remain under my control.

The results of these analyses confirm my contention that the uranium in Building G-1 at the Engelhard Corporation Harvard-Denison Plant is in fact processed uranium that had not been enriched or depleted in  $^{235}\text{U}$ . As you know, the sample identified as "spar drying, third floor" was also analyzed by the Oak Ridge Institute for Science and Education (ORISE). I have not received a written copy of those results; however, I have been informed by Mr. Bill Snell (USNRC Region 3) and Mr. Eric Abelquist (ORISE) that those results confirm that the uranium was processed uranium that had not been enriched or depleted in  $^{235}\text{U}$ .

If you have any questions, please contact me.

Sincerely,



L. Max Scott, PhD  
Certified Health Physicist

Enclosures



Building G1, Harvard-Danison Plant  
Engelhard Corporation

## DETERMINATION OF URANIUM ISOTOPIC ABUNDANCE BY ALPHA SPEC

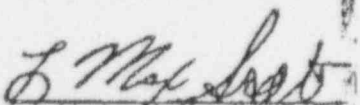
A sub-sample of the Engelhard "H-D Spar Drying, Third Floor" sample of 03/07/95 was selected, and ground to a fine mesh using a mortar and pestle. One gram of the ground material was weighed out and placed into a 250-ml Teflon beaker. Concentrated nitric acid (30 ml) and concentrated hydrochloric acid (20 ml) were added to the beaker, and the mixture allowed to pre-digest overnight. The next day, 2 ml of concentrated hydrofluoric acid (47%) was added to the beaker, and the mixture was brought to boiling. All particulate appeared to dissolve during the digestion, which was carried out until 10 ml of mixture remained. The beaker was allowed to cool, and then the contents were decanted into a 600 ml Pyrex beaker containing 300 ml of distilled deionized water. This solution was subsequently filtered through a 0.45 micron membrane filter and the filter discarded. The solution was then decanted into a clean 600 ml glass beaker. The beaker was rigged for electroplating with a 2.5 cm diameter, 99.999% pure polished silver disk (attached to the negative pole of a D.C. power supply). An aluminum strip was attached to the positive pole and placed in the beaker opposite the silver disk. A 0.5 mA current at 12 volts was sustained for ten minutes, which allowed positively-charged cations to plate out on the silver disk. The silver disk was removed from solution, rinsed with distilled water, and allowed to air dry.

## ALPHA COUNT OF SAMPLE

The silver disk was placed into the chamber of a Tennelec TC-257 Alpha Spectrometer interfaced with a Canberra Series 35 Multichannel Analyzer. The chamber was evacuated, and an 800,000-second count was carried out.

Sample Result — Spar Drying, Third Floor:

atom ratio  $^{235}\text{U}/^{238}\text{U}$  0.0070, atom percent 0.70, and mass percent 0.69.

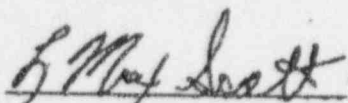


L. Max Scott, PhD, CHP  
4/20/95

Building G1, Harvard-Danison Plant  
Engelhard Corporation

### GAMMA ANALYSIS

Samples were placed in 100x15-mm plastic petri dishes and analyzed using an EG&G Ortec Multichannel Analyzer connected to a Canberra High Purity Intrinsic Germanium Detector. Samples were counted for 6000 seconds. Data reduction was achieved using EG&G Gammavision. The system was calibrated in accordance with Gammavision procedures using a mixed gamma standard traceable to the National Accreditation Service (Great Britain).



L. Max Scott, PhD, CHP

4/17/95

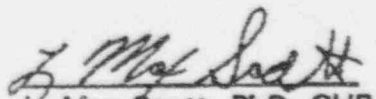
**GAMMA SPECTROSCOPY SAMPLES  
BUILDING G-1, HARVARD DENISON PLANT  
ENGELHARD CORPORATION**

LOCATION	$^{238}\text{U}$ (a) (pCi/g)	$^{235}\text{U}$ (pCi/g)	$^{238}\text{U}/^{230}\text{Th}$ Activity Ratio	$^{238}\text{U}/^{226}\text{Ra}$ (b) Activity Ratio
Spur Drying, Third Floor	$6.6 \times 10^4 \pm 2.3 \times 10^4$	$2.1 \times 10^3 \pm 8.4 \times 10^1$	7.2	680
West Wall, TSD	$1.2 \times 10^3 \pm 4.2 \times 10^2$	$3.7 \times 10^1 \pm 1.6 \times 10^0$	N/A $^{230}\text{Th} < 6.5 \times 10^1$ (c)	N/A $^{226}\text{Ra} < 1.1 \times 10^1$ (c)
Doorway, SW Corner	$1.9 \times 10^3 \pm 6.7 \times 10^2$	$6.6 \times 10^1 \pm 2.8 \times 10^0$	N/A $^{230}\text{Th} < 8.1 \times 10^1$ (c)	N/A $^{226}\text{Ra} < 1.6 \times 10^1$ (c)
Soil, West of G-1 Building	$7.0 \times 10^2 \pm 2.5 \times 10^2$	$2.3 \times 10^1 \pm 9.2 \times 10^0$	N/A $^{230}\text{Th} < 6.4 \times 10^1$ (c)	N/A $^{226}\text{Ra} < 9.4 \times 10^0$ (c)

(a) Based on  $^{234\text{m}}\text{Pa}$

(b) Based on  $^{214}\text{Pb}$

(c) pCi/g

  
L. Max Scott, PhD, CHP  
4/20/96

Building G1, Harvard-Denison Plant  
Engelhard Corporation

SENT BY:  
DATE:

13-95 : 9:21AM

412 588 1973

# 9/9

5/21/95

RESPONSES TO REGION III  
COMMENTS ON DECONTAMINATION PLAN  
FOR ENGELHARD CORPORATION PAVEMENT  
AND SOILS AREAS SURROUNDING  
BUILDING G-1  
1000 HARVARD AVENUE, CLEVELAND, OHIO

Page 2, Section 2.0

The plan describes the onsite radioactive contamination as "normal uranium (refined uranium which is neither enriched nor depleted in the ... U isotope including its short half-life daughters -  $^{234}\text{Th}$  and  $^{234}\text{Pa}$ )". The preface to the Argonne Report stated "the contaminating material seemed to be normal uranium exclusively." The Chemical Waste Management Report states the contaminant was natural uranium and its decay daughter thorium". The plan states that the remediation level for residual soil activity will be 30 pCi/g, "(it is assumed that normal uranium is no more hazardous than enriched uranium; therefore the limit of 30 pCi/g should be more than adequate to meet the exposure guideline:)." "

Because of the discrepancy between what was stated by the Argonne Report, the Chemical Waste Management Report, and your plan, and the lack of clarity as to the nature of the activity, a technical justification will need to be provided to support a remediation value in excess of 10 pCi/g, the criteria for natural uranium. Based on a January 31, 1995 telephone call between NRC Region III, Engelhard and Chevron, and a February 13, 1995 letter from Engelhard, it is our understanding that Engelhard will be collecting soil and concrete samples to determine the isotopic content of the contamination. We understand that gamma spectrometry will be performed on all samples and alpha spectrometry on one sample. The results of these sample analyses will then be provided to the NRC to support any value selected for remediation that exceeds 10 pCi/g. The value selected should be consistent between the

C/31

be conducted to determine whether any drains are contaminated and if so, determining whether the contamination exists in the Cuyahoga River.

See section 5.2.2.6 of the Site Characterization Plan. Should these surveys reveal levels approaching the applicable limit an addendum to the site Characterization Plan covering survey and sampling of the Cuyahoga River will be submitted to the NRC Region III for approval.

Page 23, Section 3.4

This section discusses the temporary onsite storage of radioactive waste generated during the decommissioning operation. Be advised that it is our position that if radioactive waste can not be shipped offsite within 60 days of approving the final termination survey report (which would authorize unrestricted release of the site), we may require you to apply for a license to store the waste.

Engelhard Corporation understands this provision and intends to take all necessary steps to assure that any radioactive waste generated is shipped for disposal within the 60 day period.

General Comment

The lack of a site map makes it difficult to visualize the layout of the site. Please provide a figure showing the site.

See the Site Characterization Plan.



May 26, 1995

Ohio Department of Health  
Bureau of Radiation Protection  
ATTN: Mr. Dwain Baer  
Health Physicist  
35 East Chestnut Street  
P.O. Box 118  
Columbus, OH 43266-0118

SUBJECT: DECOMMISSIONING OF CHEVRON CHEMICAL COMPANY'S PLANT C

Dear Mr. Baer:

As discussed by telephone on May 23, 1995, enclosed are the documents related to the Chevron Chemical Company decommissioning of their Plant C at 1000 Harvard Avenue, Cleveland, Ohio. If you have any questions concerning this information, please contact me at (708) 829-9871.

It is also my understanding that you will be participating by teleconference in a June 8, 1995 meeting we have scheduled with Chevron and their contractors. The meeting is scheduled for 1:00 p.m. (CDT) in Lisle, Illinois. I will contact you prior to June 8 to obtain a telephone number where we can call you for the meeting.

Sincerely,

Original Signed By

William G. Snell  
Decommissioning Section

Project Code: 687

Enclosures:

- 1) 11/29/94 Plant C Decommissioning Plan
- 2) 01/13/95 Ltr from NRC to Chevron
- 3) 05/18/95 Ltr from Chevron to NRC
- 4) 05/95 Radiological Health & Safety Plan  
for Plant C Decommissioning, Rev 0

cc w/o encls: M. Weber, NMSS  
J. McCormick-Barger, RIII

bcc w/o encls: PUBLIC (IE07) ✓ 1/0

DOCUMENT NAME: A:\CHEVRON.DEC

To receive a copy of this document, indicate in the box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII	C					
NAME	Snell WGS						
DATE	05/26/95						

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