

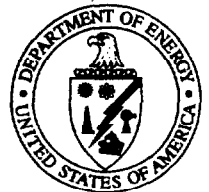
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*Certification Docket for the Remedial
Action Performed at the
Former Herring-Hall-Marvin Safe
Company Site in Hamilton, Ohio*

*Department of Energy
Former Sites Restoration Division
Oak Ridge Operations Office*

December 1996



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CERTIFICATION DOCKET FOR THE REMEDIAL ACTION
PERFORMED AT THE FORMER HERRING-HALL-MARVIN SAFE COMPANY SITE
IN HAMILTON, OHIO

DECEMBER 1996

Prepared for

United States Department of Energy

Oak Ridge Operations Office

Under Contract No. DE-AC05-91OR21949

By

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ACRONYMS

AEC	Atomic Energy Commission
ALARA	as low as reasonably achievable
BNI	Bechtel National, Inc.
DAC	derived air concentration
DCG	derived concentration guide
DOE	Department of Energy
FUSRAP	Formerly Utilized Sites Remedial Action Program
HEPA	high-efficiency particulate air
HHMS	Herring-Hall-Marvin Safe Company
HWP	hazardous work permit
IVC	independent verification contractor
MED	Manhattan Engineer District
MDA	minimum detectable activity
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
ORNL	Oak Ridge National Laboratory
PIC	pressurized ionization chamber
PPE	personal protective equipment
RCRA	Resource Conservation and Recovery Act
TMA	ThermoAnalytical (now Thermo Nutech)

UNITS OF MEASURE

cm	centimeter
dpm	disintegrations per minute
ft	foot
h	hour
in.	inch
L	liter
m	meter
mCi	microcurie
mR	microroentgen
ml	milliliter
mrem	millirem
pCi	picocuries
yr	year

INTRODUCTION

The U.S. Department of Energy (DOE), Office of Environmental Management, Division of Off-Site Programs conducted remedial action at the former Herring-Hall-Marvin Safe Company (HHMS) located at 1550 Grand Boulevard in Hamilton, Ohio. The work was administered by DOE's Formerly Utilized Sites Remedial Action Program (FUSRAP) under the direction of the Deputy Assistant Secretary for Environmental Restoration.

FUSRAP was established in 1974 to identify and clean up or otherwise control sites where chemical contamination and/or residual radioactive material (exceeding the current guidelines and criteria) remains from the early years of the nation's energy program or from commercial operations causing conditions that Congress has authorized DOE to remedy. The objectives of FUSRAP as they apply to the HHMS site are to

- identify and assess sites formerly used in support of early Manhattan Engineer District/Atomic Energy Commission (MED/AEC) nuclear work to determine whether further decontamination and/or control is needed;
- decontaminate and/or apply controls to the sites, where needed, to permit conformance to current and applicable guidelines;
- stabilize and/or remove all generated residues in an environmentally acceptable manner;
- accomplish all work in accordance with appropriate landowner agreements and local and state environmental and land-use requirements to the extent permitted by federal law and applicable DOE orders, regulations, standards, policies, and procedures; and
- certify, at the completion of remedial action, that the radiological conditions of the sites comply with applicable guidelines and that the sites are appropriate for use without radiological restrictions.

The primary legislation authorizing FUSRAP is the Atomic Energy Act of 1954. After the program was established in 1974, major remedial actions began at FUSRAP sites in 1981. Administered by the Oak Ridge Operations Office, Former Sites Restoration Division of DOE's Office of Environmental Management, FUSRAP currently includes 46 sites in 14 states. Bechtel National, Inc. (BNI) is the project management contractor for FUSRAP. ThermoAnalytical (TMA) (now Thermo Nutech) served as the radiological support subcontractor for sampling and analysis activities at the HHMS site. Oak Ridge National Laboratory (ORNL) was the independent verification contractor (IVC) for remedial action.

Environmental Regulations Applicable to FUSRAP

Regulatory requirements were identified before remediation activities were conducted at the HHMS site. The National Environmental Policy Act (NEPA), Resource Conservation and Recovery Act (RCRA), National Historic Preservation Act (NHPA), and DOE Order 5400.5 were identified as the primary regulatory drivers for conducting remediation at the HHMS site.

To assess the environmental effects of federal actions, Executive Order 11991 empowered the Council on Environmental Quality to issue regulations to federal agencies for implementing the procedural provisions of NEPA that are mandatory under law. The NEPA process requires FUSRAP decision-makers to identify and assess the environmental consequences of proposed actions before beginning remedial action, developing disposal sites, or transporting and emplacing radioactive wastes. For the remedial activities discussed in this certification docket, the NEPA requirements were satisfied by the preparation and approval of a categorical exclusion for the remedial action. This NEPA document confirmed that there would be no adverse effects on the environment from the remedial activities. The categorical exclusion was approved by DOE-Headquarters.

RCRA regulates the storage, treatment, and/or disposal of hazardous waste or radioactive mixed waste that contains hazardous constituents. Because hazardous waste was generated at the HHMS site, DOE complied with all applicable storage, treatment, and disposal provisions. Requirements included properly identifying hazardous wastes, obtaining an identification number from the Environmental Protection Agency, and meeting accumulation time provisions.

Because the HHMS cleanup was a federal undertaking, compliance with Section 106 of NHPA was required. NHPA required DOE to evaluate potential historic or cultural effects at the site and receive concurrence from the state historic preservation officer. In a letter dated October 12, 1994, the Ohio state historic preservation officer concurred with DOE's evaluation concluding that historic properties would not be affected at HHMS.

DOE Order 5400.5 established standards and requirements for operations of DOE and DOE contractors to ensure protection of members of the public and the environment against undue risk from radiation and radioactive materials. This order provides dose standards and limits, outlines the as-low-as-reasonably-achievable (ALARA) process, establishes guidelines for cleanup of residual radioactive material, and sets release criteria for property. The HHMS cleanup was conducted in compliance with DOE Order 5400.5.

BNI, as the project management contractor, was responsible for defining the extent of contamination and performing remedial design engineering and remedial action at the HHMS site. This protocol complies with all the requirements of NEPA and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and is further described in the post-remedial action report for the site.

Work performed under FUSRAP by the project management contractor or by architect-engineers, construction and service subcontractors, and other project subcontractors is governed by the provisions of the quality assurance program developed for the project and is in compliance with DOE Order 5700.6C. The effectiveness of the quality assurance program is assessed regularly by the BNI quality assurance organization, the DOE Former Sites Restoration Division, the IVC, and state regulators.

Purpose

The purpose of this certification docket is to document the successful decontamination of radioactively contaminated areas at the HHMS site; the work was performed from December 1994 through March 1995. Cleanup of the site was conducted to satisfy current DOE guidelines, which are listed on page 1-9 of this report. Guidelines are safe limits imposed to ensure public and worker safety. This certification docket consists of documents supporting DOE certification that conditions at the subject property are in compliance with the radiological criteria and standards determined to be applicable to the property. Furthermore, this certification docket provides the documents certifying that reasonably foreseeable future use of the property will not result in any significant radiological hazard to the general public as a result of the activities of DOE or its predecessor agencies.

Property Identification

The former Herring-Hall-Marvin-Safe Company is located at 1550 Grand Boulevard in Hamilton, Ohio. The structure is a large, roughly rectangular building [approximately 28,000 m² (300,000 ft²)] constructed mostly of concrete. The interior is an open design with few walls and a support structure of columns and beams with cross braces. High bays are offset by rows of windows at the ceiling. A portion of the first floor is currently leased by Union Paper Company. The remainder of the building is unoccupied and is used for storage.

Remedial action was conducted at the site from December 1994 to March 1995. Post-remedial action surveys have demonstrated and DOE has certified that radiological conditions at the site comply with DOE radiological standards and criteria established to protect human health and the environment. A notice of certification of the radiological condition of the site was published in the *Federal Register* on December 3, 1996.

Docket Contents

Exhibit I of this docket is a summary of remedial activities conducted at the HHMS site. The exhibit provides a brief history of the origin of the contamination at the site, the radiological characterization activities conducted, the remedial action performed, and post-remedial action survey and verification activities. Cost information from the remedial action conducted at the site is also included in Exhibit I. Appendix A of Exhibit I presents the DOE guidelines for residual radioactive materials at FUSRAP sites.

Exhibit II consists of the letters, memos, and reports that were produced to document the entire remedial action process, from designation of the site under FUSRAP to the certification that no radiological restrictions limit the future use of the site. Documents that are brief are included in Exhibit II. Lengthy documents are referenced in the exhibit and are provided as an attachment to the certification docket.

Exhibit III provides diagrams of the site identifying the areas of contamination designated for removal and cleaned up under this FUSRAP remedial project.

The certification docket and associated references will be archived by DOE through the Assistant Secretary for Management and Administration. Copies will be available for public viewing between 9:00 a.m. and 4:00 p.m., Monday through Friday (except federal holidays) at the DOE Public Reading Room located in Room 1E-190 of the Forrestal Building, 1000 Independence Avenue, SW, Washington, D.C. Copies of the document will also be available in the Public Document Room, Federal Building, 200 Administration Road, Oak Ridge, Tennessee, and at the Lane Public Library, 300 N. 3rd Street, Hamilton, Ohio.

EXHIBIT I
SUMMARY OF REMEDIAL ACTION ACTIVITIES AT
THE FORMER HERRING-HALL-MARVIN SAFE COMPANY SITE

1.0 INTRODUCTION

Exhibit I summarizes the activities culminating in the certification that radiological conditions at HHMS are in compliance with applicable guidelines and that future use of the site will result in no radiological exposure above DOE radiological criteria and standards established to protect members of the general public and occupants of the site. These activities were conducted under FUSRAP (Ref. 1). This summary includes a discussion of the following steps in the remedial action process at HHMS:

- characterization of the radiological status of the site,
- designation of the property as requiring remedial action,
- performance of the remedial action, and
- verification that the radioactive materials have been removed.

Further details on each activity described in Exhibit I are included in the referenced documents.

2.0 SITE HISTORY

Intermittently from the 1940s to the early 1950s, HHMS machined natural (not depleted or enriched) uranium metal slugs from rolled stock under subcontract to prime MED contractors Dupont and the University of Chicago. Records indicate that two work orders were performed at the site in 1943 in support of MED activities, and one was performed in 1951 in support of AEC. Documents used for the original radiological survey of the site noted that uranium was machined on lathes in a large machine room on the first floor of the building. Information obtained after the original survey indicated that uranium machining was also performed on the third floor. The uranium machining operation was relatively small scale and appears to have taken place during short periods of time. Records indicate that MED/AEC work at the site was discontinued in August 1951.

DOE and its predecessors never owned the equipment or property. The equipment was owned by the prime contractors and operated by the former HHMS Company, which also owned the property. Although information is limited about operations at the site during the time metal fabrication services were performed for MED, it is likely that MED and/or its agents exercised significant control over the fabrication process. Historical documents show that representatives of the prime contractor provided safety and health oversight. MED also had an onsite representative during some of the operations. All of these findings are detailed in the authority determination (Ref. 2).

3.0 SITE DESCRIPTION

The HHMS site is located at 1550 Grand Boulevard in Hamilton, Ohio (Figure I-1). The layout of the HHMS facility is shown in Figure I-2. The western end of the first floor is leased by Union Paper Company for use as a warehouse for paper products. Other portions of the first floor are used as a storage warehouse for automobiles. The third floor (Figure I-3) is currently vacant; it is constructed with concrete columns, masonry walls, and a concrete floor. A stairwell, elevator, and restroom are located in the area. A fire escape on the eastern side of the building provides an emergency exit from the second and third floors.

Approximately 1,200 unistrut inserts that were used to support overhead utilities are embedded in the reinforced concrete ceiling at 1-m (3-ft) intervals (see Figure III-3). The reinforced concrete floor is approximately 20 cm (8 in.) thick, with one expansion joint running north-south. Approximately 1,500 lead anchor bolt sleeves were embedded in the floor; however, approximately 350 of the sleeves had been removed before remediation began, leaving depressions in the floor.

The exterior walls are reinforced concrete and concrete blocks; interior walls are brick or concrete block. The lower 1.2 m (4 ft) of the exterior wall is constructed of 40-cm- (16-in.-) thick reinforced concrete, and the upper 2.4 m (8 ft) is constructed of 20-cm- (8-in.-) thick concrete block. The columns are reinforced concrete.

Radiological surveys performed in 1988 and 1989 on the first and second floors verified that radioactive contamination had been removed from those areas during previous decontamination efforts. A survey was performed in 1993 on the third floor [including the stairwell and elevator operations room above the elevator (Figure I-4)], and areas of radioactive contamination above DOE release criteria were detected.

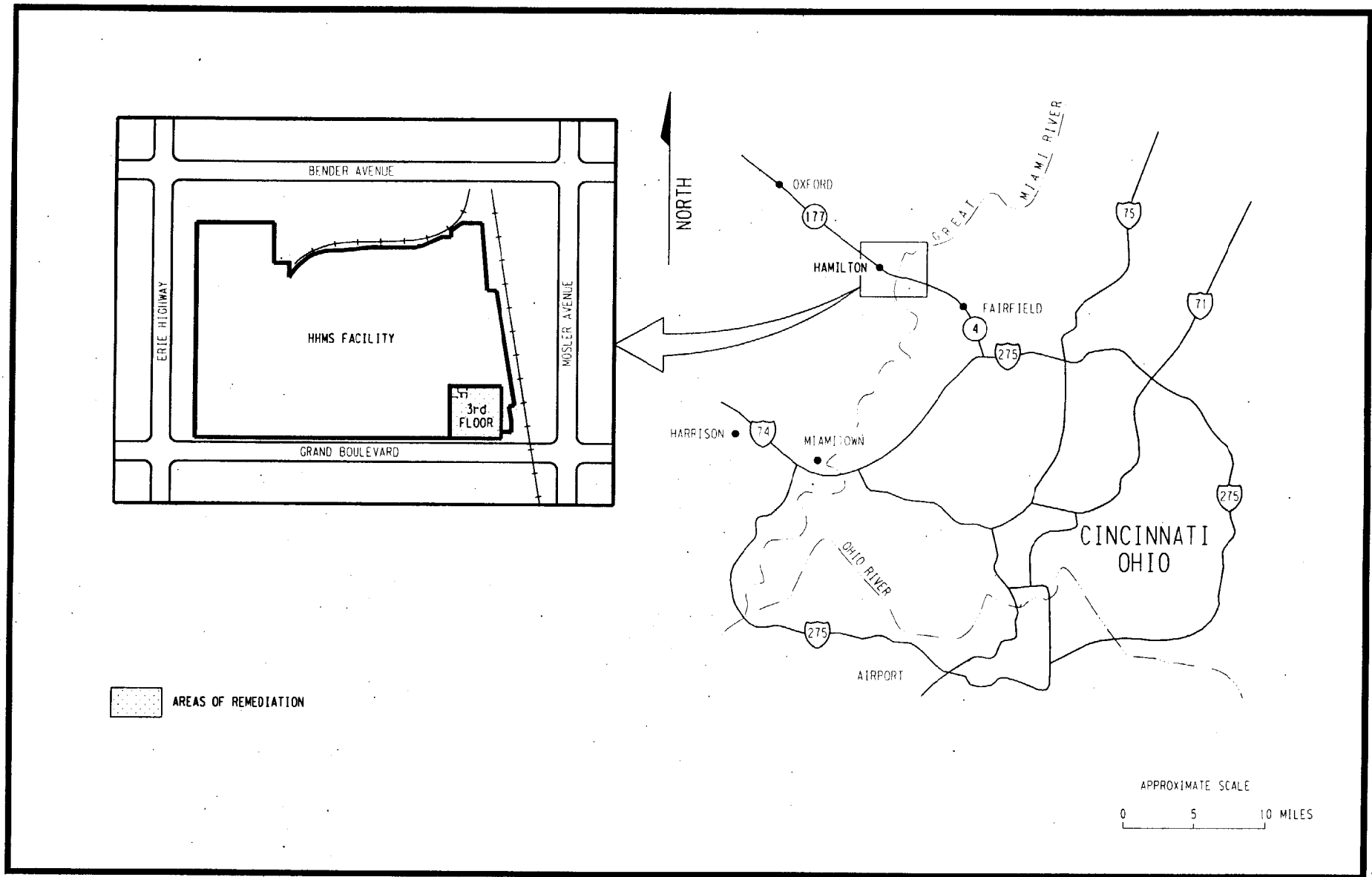


Figure I-1
General Site Location

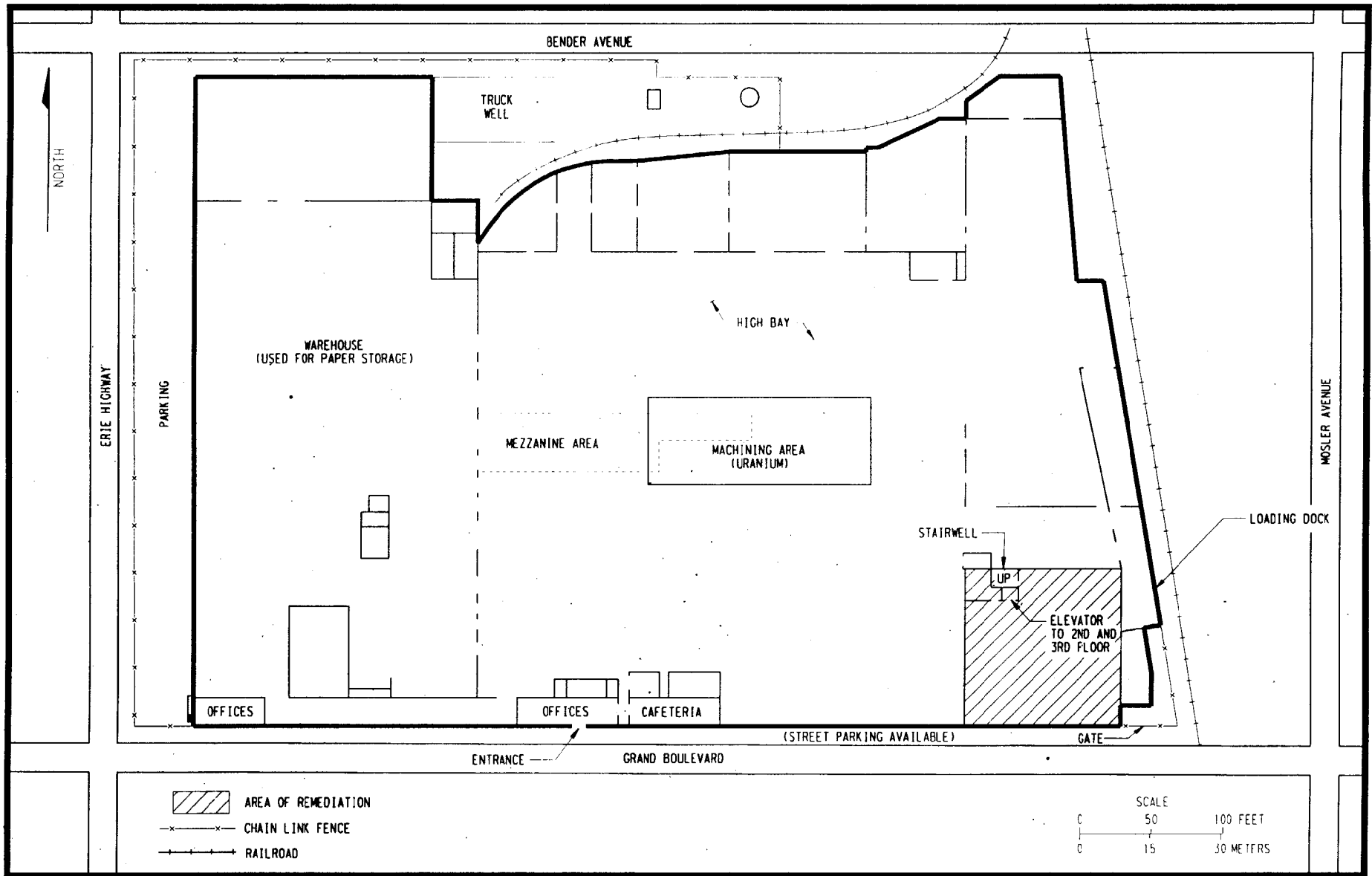
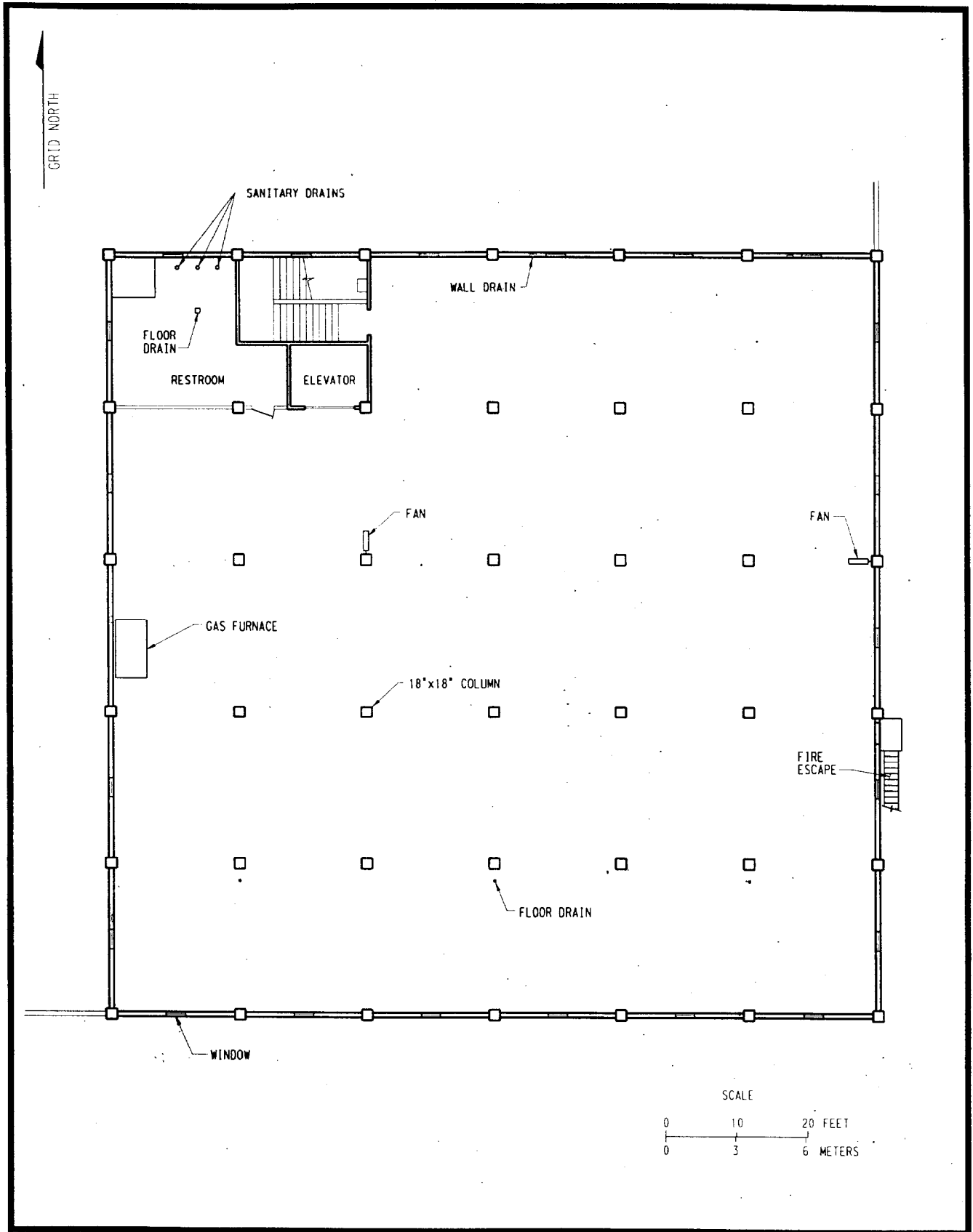
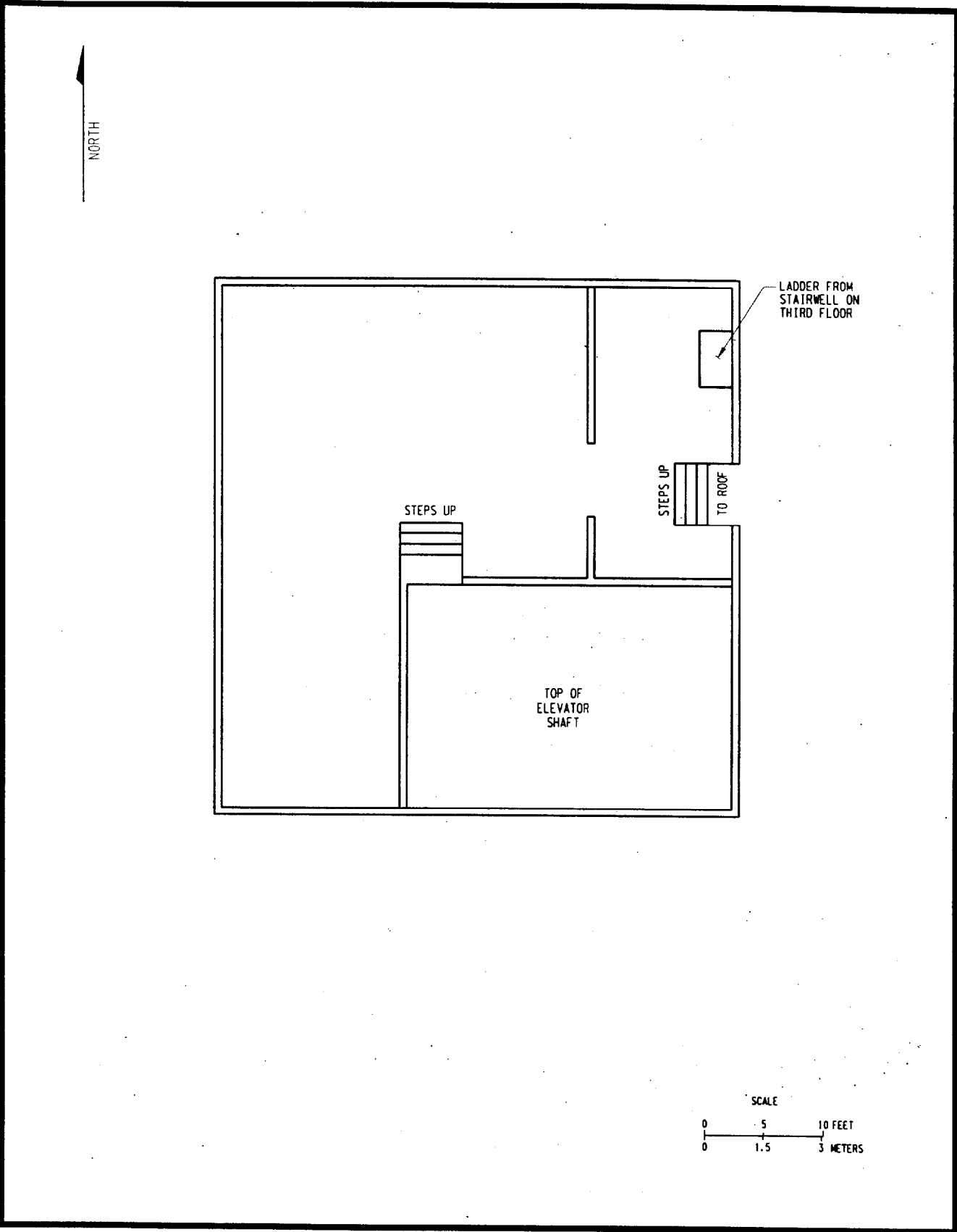


Figure I-2
Herring-Hall-Marvin Safe Facility



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Figure I-3
 Herring-Hall-Marvin Safe Facility
 Layout of Third Floor



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Figure I-4
Herring-Hall-Marvin Safe Facility
Elevator Operations Room

4.0 RADIOLOGICAL HISTORY AND STATUS

4.1 RADIOLOGICAL CHARACTERIZATION

On August 29 and 30, 1988, and April 24, 1989, radiological surveys were conducted on the first floor of the building at the request of DOE and with the consent of the property owner. The radiological surveys of the first floor detected no radionuclide concentrations above the applicable DOE criteria and no beta or gamma radiation above background (Ref. 3). Consequently, the site was eliminated from consideration under FUSRAP.

Subsequent interviews with individuals formerly associated with the site revealed that uranium machining for MED was also performed on the third floor, in the southeastern corner of the building. The third-floor area is approximately 836 m² (9,000 ft²); access is provided by a stairwell and an elevator. The radiological surveys performed in 1988 and 1989 did not include the third floor of the building because this was not previously identified as an area where uranium operations had taken place. A third radiological survey, conducted by ORNL in 1993, identified uranium on portions of the floor and walls of the third floor area (Ref. 4). After an authority determination was performed, the site was included in FUSRAP.

4.2 REMEDIAL ACTION GUIDELINES

The basic limit for annual radiation dose (excluding radon) received by an individual member of the general public is 100 mrem/yr. In implementing this limit, DOE applies ALARA principles to set site-specific guidelines.

The source of contamination on the designated property was the machining of natural uranium slugs from rolled uranium metal stock. Dose limits, exposure rate limits, and residual radioactive contamination guidelines governing the release of properties for radiologically unrestricted use are included in DOE Order 5400.5, "Radiation Protection of the Public and Environment," (Ref. 5) and are summarized in Table I-1. The remedial action guidelines for alpha activity from natural uranium, uranium-235, uranium-238, and associated decay products on structural surfaces are 5,000 dpm/100 cm² average fixed, 15,000 dpm/100 cm² maximum fixed, and 1,000 dpm/100 cm² maximum removable. Natural uranium isotopes were the only isotopes contributing significantly to the contamination at the site.

The maximum exposure rate for a habitable building or structure is limited to 20 μ R/hr above background (Ref. 5).

Table I-1

Summary of DOE Guidelines for Residual Radioactive Contamination

Basic Dose Limits

The basic limit for the annual radiation dose (excluding radon) received by an individual member of the general public is 100 mrem/yr.

Exposure Rate Limit

Maximum average exposure rate for a habitable building or structure 20 μ R/h above background

Indoor/Outdoor Structure Surface Contamination Limits

The residual contamination guidelines for fixed and transferable radioactive contamination (DOE 5400.5):

Surface contamination limit for natural uranium, uranium-235, uranium-238, and decay products

Maximum fixed	15,000 dpm/100 cm ²
Average fixed	5,000 dpm/100 cm ²
Maximum removable	1,000 dpm/100 cm ²

Surface contamination limit for beta/gamma emitters

Maximum fixed	15,000 dpm/100 cm ²
Average fixed	5,000 dpm/100 cm ²
Maximum removable	1,000 dpm/100 cm ²

The following notes apply:

- 1 Where surface contamination by both alpha and beta/gamma-emitting nuclides exists, the limits established for alpha and beta/gamma-emitting nuclides should apply independently.
- 2 As used in this table, dpm means the rate of emission by radioactive material as determined by correcting the counts per minute observed by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.
- 3 Measurements of average contaminant should not be averaged over more than one square meter. For objects of smaller surface area, the average should be derived for each such object.
- 4 The maximum contamination level applies to an area of not more than 100 cm².
- 5 The amount of removable radioactive material per 100 cm² of surface area should be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with an appropriate instrument of known efficiency. When removable contamination on objects of smaller surface area is determined, the pertinent levels should be reduced proportionally and the entire surface should be wiped.

4.3 POST-REMEDIAL ACTION STATUS

Analytical results of post-remedial action surveys indicate that the levels of radioactivity in the remediated areas are in compliance with applicable DOE standards and guidelines for residual radioactive contamination (Ref. 5). In addition to its independent surveys, the IVC reviewed the post-remedial action survey plan (Ref. 6) and BNI and TMA post-remedial action survey results, measurement procedures, and quality assurance data (Ref. 7).

The IVC is responsible for conducting verification activities, including type A and type B verification reviews. For the type A verification review, the IVC reviews the remedial action plans, release criteria, procedures, final survey documentation, final project documentation, and, if appropriate, analyses of split samples. For the type B review, the IVC conducts onsite visits and independent surveys of the site (including direct measurements) in addition to the type A reviews. At the HHMS site, the IVC also reviewed the survey results and the methods used to perform the post-remedial action surveys and laboratory analyses. HHMS verification was performed following type B review procedures.

The post-remedial action survey data indicate that the radiological condition of the former HHMS facility is in compliance with applicable DOE standards and guidelines for cleanup of residual radioactive contamination. Based on a review of BNI and TMA post-remedial action measurements, survey procedures and results, and quality assurance data, the IVC confirmed that the site was decontaminated to comply with the radiological guidelines established for the site.

After completing verification activities, the IVC notified DOE-Headquarters, Division of Facility and Site Decommissioning, and DOE-Oak Ridge Operations, Former Sites Restoration Division, of its findings and recommendations. Based on a review of post-remedial action data, DOE determined that radiological conditions at the site comply with DOE decontamination criteria and standards to protect health, safety, and the environment and has certified that the site is appropriate for use without radiological restrictions.

5.0 SUMMARY OF REMEDIAL ACTION

5.1 PRE-REMEDIAL ACTION ACTIVITIES

5.1.1 Pre-Remedial Action Surveys

In 1994, before remedial action began, appropriate access agreements and real estate licenses were obtained from the property owner and the State of Ohio. Potentially contaminated areas were resurveyed to more accurately define the boundaries of radioactive contamination, to supplement existing characterization information, and to obtain the information necessary to classify the waste to be shipped to the Envirocare of Utah waste disposal facility in Clive, Utah. Areas that were initially inaccessible were surveyed as they became accessible during remedial action. Analyses indicated that there were no hazardous substances regulated by RCRA except for 1,150 lead anchor bolt sleeves in the floor.

5.1.2 Background Measurements

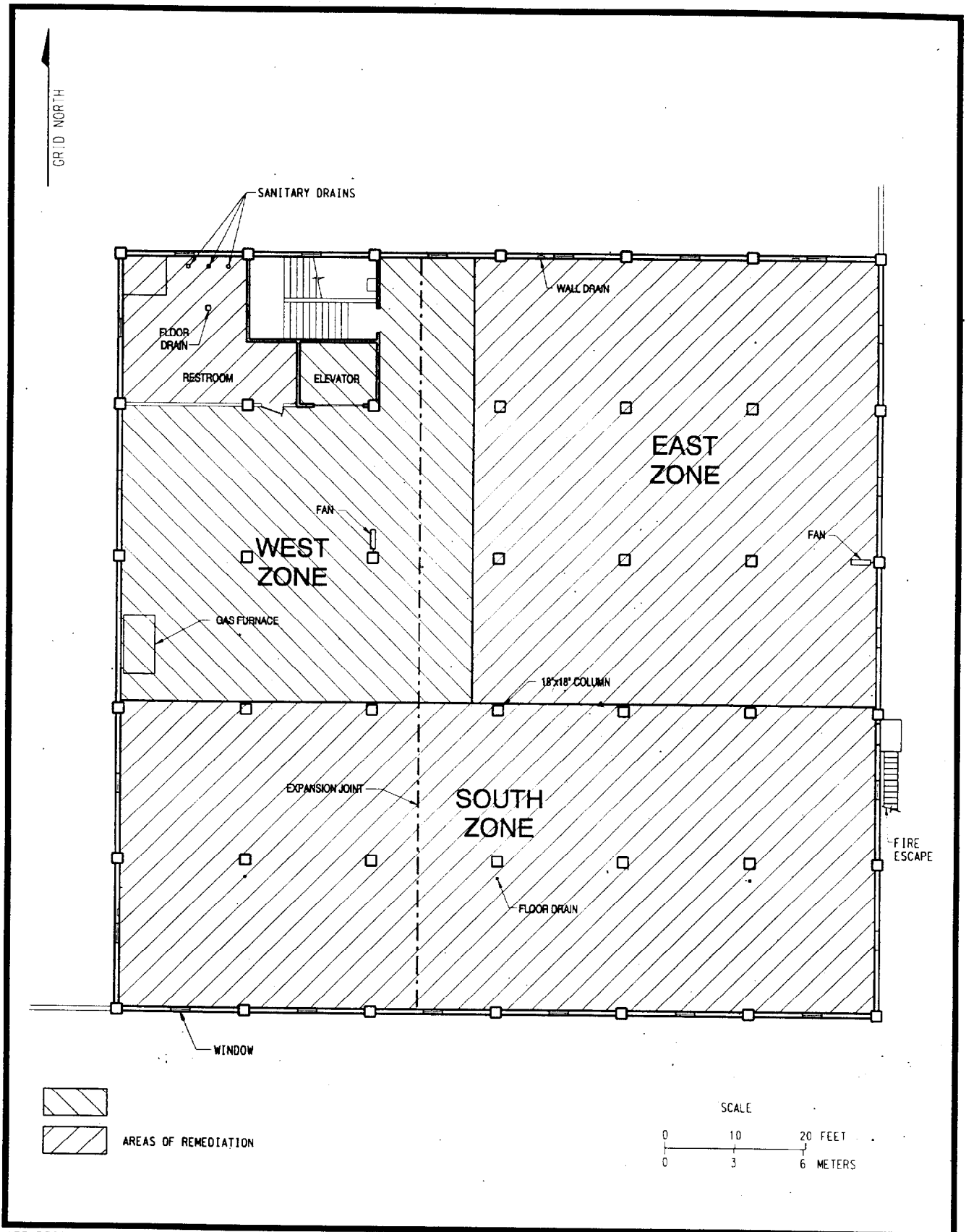
Background measurements were collected from locations in the general vicinity of the HHMS site that were unaffected by operations at the facility. Background data provide information on typical conditions for the area and serve as a frame of reference for evaluating data from the site. Surveys for direct and transferable contamination were performed on other concrete material within the building in areas unaffected by uranium operations. Soil and concrete samples were also collected and analyzed for radioactivity. The samples did not contain radioactivity above background. The average of the background gamma radiation exposure rates was 8.9 $\mu\text{R}/\text{h}$. The DOE guideline for gamma radiation exposure rates is 20 $\mu\text{R}/\text{hr}$ above background (Ref. 5).

5.2 DECONTAMINATION ACTIVITIES

The third floor was the only part of the building that required remediation during this effort. The floors and walls of the southern zone of the third floor were remediated first, followed by the eastern and western zones (see Figure I-5).

The interior areas requiring remedial action were

- the entire floor surface [approximately 836 m² (9,000 ft²)], including approximately 1,150 lead anchor bolt sleeves;
- approximately 107 m² (1,150 ft²) of the northern wall and approximately 26 m² (275 ft²) of the eastern wall;
- two fans in the ceiling;
- portions of the elevator operations room above the elevator; and
- floor drains in the former production area and restroom.



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Figure I-5
 Herring-Hall-Marvin Safe Facility
 Areas of Remediation - Third Floor

The decontamination process began in the overhead areas and proceeded downward. Activities were performed as follows:

- identification of all utility lines, heating units, and fans to be removed from the ceiling, walls, and columns;
- lock-out and tag-out of electrical connections;
- decontamination of walls and columns;
- removal of lead-filled anchor bolt sleeves in the floor;
- decontamination of the entire floor; and
- decontamination of the elevator operation room.

As remediation was completed, exposure rate measurements were taken within each 10-m by 10-m grid with a pressurized ionization chamber (PIC) to confirm that the external gamma radiation contribution to the total dose, excluding radon, was below the dose limit of 20 $\mu\text{R/h}$ above background in habitable buildings or structures.

Table I-2 lists the decontamination techniques used at the HHMS site. After remediation was completed, the site was restored to a condition acceptable to the owner.

5.2.1 Contamination Control During Remedial Action

During remedial action, engineering and administrative controls were implemented to protect remediation workers and members of the general public from potential exposure to radiation above applicable standards. Additionally, personal protective equipment (PPE) was used for protection of remediation workers within radiation control zones. Measures were also taken to prevent the migration of radioactive material to adjacent uncontaminated areas of the site. These controls were outlined in a site-specific health and safety work instruction. Before field activities began, the field crew received site-specific training and reviewed applicable work-controlling documents.

Because the decontamination activities involved potential exposure to radioactively contaminated material, work was performed under hazardous work permits (HWPs). The HWPs, issued by the site safety and health representative, specified PPE to be worn by workers and provided health and safety instructions for various tasks. In general, work in contaminated areas required Tyvek™ coveralls, gloves, hard hats, safety glasses, and sturdy work boots. When conditions warranted, additional protective clothing and equipment such as hoods and respirators were used.

Access to the building and work areas was controlled by physical barriers, postings, and signs. Restricted work areas were set up around the remediation areas. High-efficiency particulate air- (HEPA-) filtered vacuum systems were used for dust control during cutting and mechanical blasting operations. The contents of the vacuum systems were transferred to disposal containers placed on a plastic sheet in isolated containment areas to minimize the potential for cross-contamination. Workers wore face shields

Table I-2

Decontamination Techniques Used at the HHMS Site

Technique	Description
HEPA Vacuuming	HEPA-filtered vacuum cleaners were used to remove loose contamination, primarily in overhead areas.
Mechanical Shot Blasting	Two commercially available shot-blast systems, the BlasTrak™ and VacuBlast™ decontamination systems, with self-contained dust collection systems, were used to clean the floor and wall surfaces by using metallic abrasive material on the work surface and removing incremental layers of contaminated material.
Core Cutting	An electrical drill with a 10-cm- (4-in.-) diameter concrete core-cutting bit was used to remove sections of the floor containing lead anchor bolt sleeves that were potentially contaminated with material exceeding the residual radioactivity guidelines.

during washing, cutting, and blasting operations. Ambient and workplace air monitoring was performed to ensure public and worker safety. All equipment was surveyed and decontaminated before it was removed from the site. Transportation of materials was controlled in accordance with DOE and Department of Transportation regulations.

5.3 POST-REMEDIAL ACTION MEASUREMENTS

After the site was remediated, initial post-remediation surveys were conducted by the radiological support subcontractor. Survey techniques used during the post-remedial action and verification surveys included measurements of direct and transferable surface contamination (when direct measurements were above the guidelines for removable contamination), walkover gamma scans, and exposure rate measurements. Methodologies and types of monitoring instrumentation used for each of the survey techniques are described in more detail in the post-remedial action survey plan for the site (Ref. 6). The radiological support subcontractor also provided support for analyzing the samples collected. The IVC performed independent verification surveys of the remediated areas using comparable survey techniques; the IVC survey data were issued as a separate report by ORNL (Ref. 8).

Post-remedial action surveys were conducted to confirm that no residual radioactive material above DOE standards remains at the site. Measurements of direct and transferable surface contamination, where required, were taken on the floor and walls of the third floor work area, the floor and walls of the third floor restroom, portions of the ceiling, unistruts in the ceiling, lead anchor bolt sleeves in the floor, the elevator and shaft, the elevator operations room, and stairwells leading from the third floor. Most of the ceiling areas were not radioactively contaminated and therefore needed no remediation.

Gamma exposure rate measurements were also taken as specified in the post-remedial action survey plan. The external gamma exposure rates were measured using a PIC. Data obtained from post-remedial action surveys are presented in the post-remedial action report for the site (Ref. 7).

5.3.1 Direct and Transferable Surface Contamination

Post-remedial action surveys were conducted on all decontaminated surfaces; all survey results were well below DOE guidelines.

Survey grids with 1-m (3-ft) spacing were established over the remediated floors and walls. Surveys were performed to detect both alpha and beta/gamma radiation by scanning the entire grid and then taking direct measurements at the corners and in the center of each grid.

5.3.2 Gamma Exposure Rate Measurements

Gamma exposure rates were measured using a PIC to provide an estimate of the potential exposure from gamma radiation. The exposure rates ranged from 8.1 to 8.7 $\mu\text{R}/\text{h}$, indistinguishable from the 8.9- $\mu\text{R}/\text{h}$ background exposure rate. The exposure rates inside the building were, therefore, well below the DOE guideline, which specifies that an exposure rate of 20 $\mu\text{R}/\text{h}$ above background is the maximum acceptable average exposure rate inside a habitable structure.

5.4 VERIFICATION ACTIVITIES

As the IVC, ORNL conducted verification activities that included reviewing the published characterization survey reports and the post-remedial action data, visually inspecting the site, and performing radiological survey and sampling activities. The surveys were conducted in accordance with DOE-approved verification and certification protocol (Ref. 9). The objective of the independent verification survey was to confirm that surveys, sampling, and analyses conducted during the remedial action process provided an accurate and complete description of the radiological status of the property.

The post-remedial action survey data indicate that all areas of the former HHMS facility that had been determined to be contaminated during characterization surveys are now in compliance with applicable DOE standards for cleanup of residual radioactive materials. Based on a review of post-remedial action measurements, survey procedures, and quality assurance data, the IVC confirmed that the site was decontaminated to comply with the radiological guidelines established for the site.

5.5 PUBLIC AND OCCUPATIONAL EXPOSURES

5.5.1 Public Exposure

The primary potential exposure pathways for occupants of the building and members of the general public were inhalation and ingestion of radioactively contaminated airborne dust generated during the operation of mechanical equipment. The potential for dust migration was minimized by maintaining adequate moisture with a fine mist of water during operations that caused dust to be generated.

Air particulate sampling was performed adjacent to areas being remediated to ensure that no building occupant or member of the general public was exposed to radioactivity above the current standards (DOE Order 5400.5). These standards were established to protect members of the general public and the environment against undue risks from radiation. The limits expressed in DOE Order 5400.5 are derived concentration guides (DCGs). A DCG is the concentration of a particular radionuclide that would yield a committed effective dose equivalent of 100 mrem/yr (the DOE basic dose limit) to an individual continuously exposed to the radionuclide by one pathway (e.g., inhalation) for an entire year. Data collected during the remediation documented no release of radioactive materials above the standards.

A high-volume air sampler was used for air particulate sampling. The filters were collected daily and counted after sufficient time was allowed for radon progeny decay. Concentrations of uranium-238 measured by the air samplers ranged from less than the minimum detectable activity (MDA) to 2.1×10^{-14} $\mu\text{Ci/ml}$. MDAs ranged from 4.3×10^{-15} to 1.7×10^{-13} $\mu\text{Ci/ml}$. The DCG is 2.0×10^{-12} $\mu\text{Ci/ml}$ (0.002 pCi/L) for uranium-238. Results for air samples taken on the first floor of the building (at the request of the owner) were communicated to the Ohio Environmental Protection Agency.

5.5.2 Occupational Exposure

Workers leaving controlled areas were subjected to a radiological survey (frisked) at the control point by a health physics technician with a Geiger-Mueller hand-held radiation detection instrument to ensure that they were not contaminated and to prevent the potential spread of radioactive material from the work area. A frisk is a search for radioactive material that may have been transferred onto the clothing or skin of individuals inside the work area. The hand-held radiation detection instrument is held approximately 1 cm (0.4 in.) away from the area to be frisked and moved slowly (about 2 in. per second) to frisk the body or clothing of the worker. Portions of the PPE that were suspected or known to be contaminated were packaged and shipped to the Envirocare of Utah disposal facility.

The primary potential exposure pathways for personnel during remediation activities were inhalation and ingestion of radioactively contaminated dust from the mechanical decontamination of interior structural surfaces. Work controls and procedures, PPE, monitoring, HEPA filtration units, and commercially available decontamination systems that control the spread of dust were used to minimize the potential for contaminants to become airborne and to protect personnel against undue exposure.

During remediation, particulate air monitoring devices were placed on workers and in the areas being remediated. The concentrations of uranium-238 were conservatively derived by collecting air particulate samples daily from lapel air samplers worn by workers. After the gross activity per volume of air that passed through the filter was determined, the source of all activity on the filter was conservatively assumed to be uranium-238. The measured airborne concentrations were then compared with the applicable guideline [derived air concentrations (DACs)]. All samples were determined to be well below the guideline. The results ranged from less than the MDA to 4.7×10^{-13} $\mu\text{Ci/ml}$. MDAs ranged from 2.2×10^{-15} to 2.9×10^{-13} $\mu\text{Ci/ml}$. For occupational exposures to airborne uranium-238, the DAC is 2.0×10^{-11} $\mu\text{Ci/ml}$ (0.02 pCi/L).

5.6 WASTE MANAGEMENT

A waste management summary is included in Table I-3.

**Table I-3
Waste Management Summary**

WBS	<u>135</u>	REMEDIATION AUTHORITY	
SITE	<u>Herring-Hall-Marvin Safe Co.</u>	<input checked="" type="checkbox"/>	NEPA/CERCLA
OWNER	<u>William Burchfield</u>	<input type="checkbox"/>	SUPERFUND
ADDRESS	<u>1550 Grand Boulevard</u>	<input type="checkbox"/>	RCRA
CITY, STATE	<u>Hamilton, Ohio</u>		

ACTION	DATE	RESPONSIBLE ENTITY	DOCUMENT
DESIGNATION	1994	DOE	Designation Letter
CHARACTERIZATION	1988 & 1989	ORNL	Characterization Report
CHARACTERIZATION	1993	ORNL	Characterization Report
FINAL RA	1994 & 1995	BNI	Post-Remedial Action Report

TOTAL VOLUME 324 ft³

To Remain In Situ	<u>N/A</u>	Documentation Used: <u>N/A</u>
Volume Reduction	<u>N/A</u>	
Net Disposal	<u>324 ft³</u>	

TYPE OF WASTE FOR NET DISPOSAL:

REGULATORY	VOLUME	DISPOSAL SITE
<input checked="" type="checkbox"/> LLRW	<u>270 ft³</u>	<u>Envirocare of Utah</u>
<input checked="" type="checkbox"/> MIXED <u>Encapsulated Lead Sleeves</u>	<u>54 ft³</u>	<u>Envirocare of Utah</u>

PHYSICAL

<input checked="" type="checkbox"/> BUILDING RUBBLE (concrete, brick, etc.)	<u>324 ft³</u>	<u>Envirocare of Utah</u>
<input type="checkbox"/> SOIL	_____	_____
<input type="checkbox"/> LIQUID	_____	_____
<input type="checkbox"/> OTHER _____	_____	_____

TREATMENT TECHNOLOGIES APPLIED AT THE SITE:

Macroencapsulation of lead sleeves from the floor

5.7 COSTS

The final costs associated with the remedial action performed at the HHMS site are presented in Table I-4.

Table I-4

Cost of Remedial Action at the HHMS Site

Description	Cost
Design engineering	\$ 25,500
Remedial action operations	405,700
Waste transport and disposal	62,800
Final engineering reports	29,300
Project support ^a	222,800
TOTAL	\$746,100

^aProject support cost includes all travel, materials and supplies, leased equipment, site reimbursement, and administrative costs (including documentation and overhead).

REFERENCES

1. DOE, Description of the Formerly Utilized Sites Remedial Action Program, ORO-777, Oak Ridge, Tenn., September 1980.
2. DOE, Memorandum from W. Alexander Williams (Designation and Certification Manager, DOE) to file, "Authority Determination - Former Herring-Hall-Marvin Safe Co., Hamilton, Ohio," BNI CCN 114465, March 8, 1994.
3. ORNL, Results of the Radiological Survey at Diebold Safe Company, 1550 Grand Boulevard, Hamilton, Ohio (H0001), ORNL/RASA-88/59, Oak Ridge, Tenn., February 1990.
4. ORNL, Results of the Radiological Survey of the Former Herring-Hall-Marvin Safe Company (3rd Floor), 1550 Grand Boulevard, Hamilton, Ohio (H0001), ORNL/RASA-94/1, Oak Ridge, Tenn., March 1994.
5. DOE Order 5400.5, Radiation Protection of the Public and Environment, Chapter IV, "Residual Radioactive Material," Washington, D.C., 1993.
6. BNI, Herring-Hall-Marvin Safe Company Post-Remedial Action Survey Plan, BNI CCN 122113, August 1994.
7. BNI, Post-Remedial Action Report for the Herring-Hall-Marvin Safe Company Site, Hamilton, Ohio, DOE/OR/21949-391, Oak Ridge, Tenn., February 1996.
8. ORNL, Results of the Radiological Verification Survey at the Former Herring-Hall-Marvin Safe Company, 1550 Grand Blvd, Hamilton, Ohio (H00001V), ORNL/RASA-95/14, Oak Ridge, Tenn., November 1995.
9. DOE, Verification and Certification Protocol for the Office of Environmental Restoration FUSRAP and D&D Program, Revision 3, November 1990.
10. Memorandum from J. J. Fiore (DOE-HQ) to S. W. Ahrends (DOE-ORO), "Revised Guidelines ' for Residual Radioactive Material at FUSRAP and Remote SFMP Sites." (Attachment: US. Department of Energy Guidelines for Residual Radioactive Material at Formerly Utilized Sites Remedial Action Program and Remote Surplus Facilities Management Program Sites, Revision 2, March 1987), BNI CCN 045227, April 2, 1987.
11. DOE, Design Criteria for Formerly Utilized Sites Remedial Action Program (FUSRAP) and Surplus Facilities Management Program (SFMP), 14501-00-DC-01, Rev. 2, Oak Ridge, Tenn., March 1986.

12. BNI, "Hazard Analysis Preliminary Site Visit and Scoping for Former Herring-Hall-Marvin Safe Company (3rd Floor)," BNI CCN 115452, Oak Ridge, Tenn., April 1994.

GLOSSARY

ALARA - (as low as reasonably achievable). This phrase is used to describe an approach to radiation protection to control or manage exposures and releases of radioactive material to the environment as low as social, technical, economic, practical, and public policy considerations permit. As used by DOE, ALARA is not a dose limit but a process with the objective of attaining dose levels as far below the applicable limits as practicable.

Alpha - See **Radiation**.

Background radiation - Background radiation refers to naturally occurring radiation emitted from either cosmic (e.g., from the sun) or terrestrial (e.g., from the earth) sources. Exposure to this type of radiation is unavoidable, and its level varies greatly depending on the geographic location. For example, because of naturally occurring radiation alone, New Jersey typically receives 100 mrem/yr, Colorado receives about 300 mrem/yr, and some areas in South America receive up to 7,000 mrem/yr. Naturally occurring terrestrial radionuclides include uranium, radium, potassium, and thorium (see **Radionuclide**). The dose levels do not include the concentrations of naturally occurring radon inside buildings.

Beta/gamma - See **Radiation**.

Centimeter - A centimeter (cm) is a metric unit of measurement for length; 1 inch is equal to 2.54 cm; 1 foot is equal to approximately 30 cm.

Contamination - Contamination is used generally to mean a concentration of one or more radioactive materials that exceeds naturally occurring levels. Contamination may or may not exceed the DOE cleanup guidelines.

Curie - The curie, symbolized by Ci, is a unit for quantity of radioactivity. It is the quantity of radioactive material in which 3.7×10^{10} atoms are transformed per second, or disintegrate per second. For health physics, as well as for many other purposes, the curie is a very large amount of activity. For convenience, sub-multiples of the curie, as listed below, are therefore used:

1 microcurie (μCi) = 0.000001 Ci (1×10^{-6} Ci), and
1 picocurie (pCi) = 0.000000000001 Ci (1×10^{-12} Ci).

Disintegrations per minute - Disintegrations per minute (dpm) is the measurement indicating the amount of radiation being released from a substance per minute. See **Curie**.

Exposure rate - Exposure rate is the rate at which radiation imparts energy to the air. Exposure is typically measured in microroentgens (μR), and exposure rate is typically expressed as $\mu\text{R}/\text{h}$. The dose to the whole body can be approximated by multiplying the exposure rate by the number of hours of exposure.

For example, if an individual were exposed to gamma radiation at a rate of 20 $\mu\text{R}/\text{h}$ for 168 h/week (continuous exposure) for 52 weeks/year, the whole-body dose on an annual basis would be 170 mrem (1 mrem = 1,000 μR).

Gamma - See **Radiation**.

Gram - A gram (g) is a metric unit of weight. There are approximately 454 g in 1 pound and 28.3 g in 1 ounce.

Guideline - A guideline for residual radioactive material is a level that is acceptable for use of property without restrictions because of residual radioactive material.

Meter - A meter (m) is a metric unit of length; 1 m is equal to approximately 39.4 inches.

Microroentgen - A microroentgen (μR) is a unit used to measure radiation exposure. For further information, see **Exposure rate**.

Picocurie - See **Curie**.

Radiation - There are three primary types of radiation: alpha, beta, and gamma. Alpha radiation travels less than an inch in air before it stops and cannot penetrate the outer layers of human skin. Alpha radiation is of concern only if it is ingested or inhaled into the body. Beta radiation can penetrate the outer layers of skin but cannot reach the internal organs. Gamma radiation, the most penetrating type, can usually reach the internal organs.

Radionuclide - Radioactive elements are also referred to as radionuclides. For example, uranium-235 is a radionuclide, uranium-238 is another, thorium-232 is another, and so on.

Remedial action - Remedial action is a general term used to mean "cleanup of contamination that exceeds DOE guidelines." It refers to any action required so that a property can be certified as being in compliance with guidelines and can therefore be released for future use. In practice, this may require removing grass and soil, cutting trees, and removing asphalt. Remedial action also includes restoring remediated properties to as close to their original conditions as possible.

Uranium - Uranium is a naturally occurring radioactive element. The principal use of uranium when refined is for the production of fuel for nuclear reactors. Uranium in its natural form is not suitable for use as a fuel source.

APPENDIX A
DOE ORDER 5400.5, CHAPTER IV
RESIDUAL RADIOACTIVE MATERIAL

CHAPTER IV

RESIDUAL RADIOACTIVE MATERIAL

1. **PURPOSE.** This chapter presents radiological protection requirements and guidelines for cleanup of residual radioactive material and management of the resulting wastes and residues and release of property. These requirements and guidelines are applicable at the time the property is released. Property subject to these criteria includes, but is not limited to sites identified by the Formerly Utilized Sites Remedial Action Program (FUSRAP) and the Surplus Facilities Management Program (SFMP). The topics covered are basic dose limits, guidelines and authorized limits for allowable levels of residual radioactive material, and control of the radioactive wastes and residues. This chapter does not apply to uranium mill tailings or to properties covered by mandatory legal requirements.
2. **IMPLEMENTATION.** DOE elements shall develop plans and protocols for the implementation of this guidance. FUSRAP sites shall be identified, characterized, and designated, as such, for remedial action and certified for release. Information on applications of the guidelines and requirements presented herein, including procedures for deriving specific property guidelines for allowable levels of residual radioactive material from basic dose limits, is contained in DOE/CH 8901, "A Manual for Implementing Residual Radioactive Material Guidelines, A Supplement to the U.S. Department of Energy Guidelines for Residual Radioactive Material at FUSRAP and SFMP Sites," June 1989.
 - a. **Residual Radioactive Material.** This chapter provides guidance on radiation protection of the public and the environment from:
 - (1) Residual concentrations of radionuclides in soil (for these purposes, soil is defined as unconsolidated earth material, including rubble and debris that might be present in earth material);
 - (2) Concentrations of airborne radon decay products;
 - (3) External gamma radiation;
 - (4) Surface contamination; and
 - (5) Radionuclide concentrations in air or water resulting from or associated with any of the above.
 - b. **Basic Dose Limit.** The basic dose limit for doses resulting from exposures to residual radioactive material is a prescribed standard from which limits for quantities that can be monitored and controlled are derived; it is specified in terms of the effective dose equivalent as defined in this Order. The basic dose limits are used for deriving guidelines for residual concentrations of radionuclides in soil. Guidelines for residual concentrations of thorium and radium in soil, concentrations of airborne radon decay products, allowable indoor external gamma radiation levels, and residual surface contamination concentrations are based on existing radiological protection standards (40 CFR Part 192; NRC Regulatory Guide 1.86 and subsequent NRC guidance on residual radioactive material). Derived guidelines or limits based on the basic dose limits for those quantities are used only when the guidelines provided in the existing standards are shown to be inappropriate.

- c. **Guideline.** A guideline for residual radioactive material is a level of radioactive material that is acceptable for use of property without restrictions due to residual radioactive material. Guidelines for residual radioactive material presented herein are of two kinds, generic and specific. The basis for the guidelines is generally a presumed worst-case plausible-use scenario for the property.
- (1) Generic guidelines, independent of the property, are taken from existing radiation protection standards. Generic guideline values are presented in this chapter.
 - (2) Specific property guidelines are derived from basic dose limits using specific property models and data. Procedures and data for deriving specific property guideline values are given by DOE/CH-8901.
- d. **Authorized Limit.** An authorized limit is a level of residual radioactive material that shall not be exceeded if the remedial action is to be considered completed and the property is to be released without restrictions on use due to residual radioactive material.
- (1) The authorized limits for a property will include:
 - (a) Limits for each radionuclide or group of radionuclides, as appropriate, associated with residual radioactive material in soil or in surface contamination of structures and equipment;
 - (b) Limits for each radionuclide or group of radionuclides, as appropriate, in air or water; and
 - (c) Where appropriate, a limit on external gamma radiation resulting from the residual material.
 - (2) Under normal circumstances expected at most properties, authorized limits for residual radioactive material are set equal to, or below, guideline values. Exceptional conditions for which authorized limits might differ from guideline values are specified in paragraphs IV-5 and IV-7.
 - (3) A property may be released without restrictions if residual radioactive material does not exceed the authorized limits or approved supplemental limits, as defined in paragraph IV.7a, at the time remedial action is completed. DOE actions in regard to restrictions and controls on use of the property shall be governed by provisions in paragraph IV.7b. The applicable controls and restrictions are specified in paragraph IV.6 and IV.7.c.
- e. **ALARA Applications.** The monitoring, cleanup, and control of residual radioactive material are subject to the ALARA policy of this Order. Applications of ALARA policy shall be documented and filed as a permanent record.

3. **BASIC DOSE LIMITS.**

- a. **Defining and Determining Dose Limits.** The basic public dose limits for exposure to residual radioactive material, in addition to natural occurring "background" exposures, are 100 mrem (1 mSv) effective dose equivalent in a year, as specified in paragraph II.1a.

- b. Unusual Circumstances. If, under unusual circumstances, it is impracticable to meet the basic limit based on realistic exposure scenarios, the respective project and/or program office may, pursuant to paragraph II.1a(4), request from EH-1 for a specific authorization for a temporary dose limit higher than 100 mrem (1 mSv), but not greater than 500 mrem (5 mSv), in a year. Such unusual circumstances may include temporary conditions at a property scheduled for remedial action or following the remedial action. The ALARA process shall apply to the selection of temporary dose limits.

4. GUIDELINES FOR RESIDUAL RADIOACTIVE MATERIAL.

- a. Residual Radionuclides in Soil. Generic guidelines for thorium and radium are specified below. Guidelines for residual concentrations of other radionuclides shall be derived from the basic dose limits by means of an environmental pathway analysis using specific property data where available. Procedures for these derivations are given in DOE/CH-8901. Residual concentrations of radioactive material in soil are defined as those in excess of background concentrations averaged over an area of 100 m².

(1) Hot Spots. If the average concentration in any surface or below-surface area less than or equal to 25 m², exceeds the limit or guideline by a factor of $(100/A)^{0.5}$, [where A is the area (in square meters) of the region in which concentrations are elevated], limits for "hot-spots" shall also be developed and applied. Procedures for calculating these hot-spot limits, which depend on the extent of the elevated local concentrations, are given in DOE/CH-8901. In addition, reasonable efforts shall be made to remove any source of radionuclide that exceeds 30 times the appropriate limit for soil, irrespective of the average concentration in the soil.

(2) Generic Guidelines. The generic guidelines for residual concentrations of Ra-226, Ra-228, Th-230, and Th-232 are:

- (a) 5 pCi/g, averaged over the first 15 cm of soil below the surface; and
- (b) 15 pCi/g, averaged over 15-cm-thick layers of soil more than 15 cm below the surface.

(3) Ingrowth and Mixtures. These guidelines take into account ingrowth of Ra-226 from Th-230 and of Ra-228 from Th-232, and assume secular equilibrium. If both Th-230 and Ra-226 or both Th-232 and Ra-228 are present and not in secular equilibrium, the appropriate guideline is applied as a limit for the radionuclide with the higher concentration. If other mixtures of radionuclides occur, the concentrations of individual radionuclides shall be reduced so that either the dose for the mixtures will not exceed the basic dose limit or the sum of the ratios of the soil concentration of each radionuclide to the allowable limit for that radionuclide will not exceed 1. Explicit formulas for calculating residual concentration guidelines for mixtures are given in DOE/CH-8901.

- b. Airborne Radon Decay Products. Generic guidelines for concentrations of airborne radon decay products shall apply to existing occupied or habitable structures on private property that are intended for release without restriction; structures that will be demolished or buried are excluded. The applicable generic guideline (40 CFR Part 192) is: In any occupied or habitable building, the objective of remedial action shall be, and a reasonable effort shall be made to achieve, an annual average (or equivalent) radon

decay product concentration (including background) not to exceed 0.02 WL. [A working level (WL) is any combination of short-lived radon decay products in 1 L of air that will result in the ultimate emission of 1.3×10^5 MeV of potential alpha energy.] In any case, the radon decay product concentration (including background) shall not exceed 0.03 WL. Remedial actions by DOE are not required in order to comply with this guideline when there is reasonable assurance that residual radioactive material is not the source of the radon concentration.

- c. External Gamma Radiation. The average level of gamma radiation inside a building or habitable structure on a site to be released without restrictions shall not exceed the background level by more than 20 μ R/h and shall comply with the basic dose limit when an "appropriate-use" scenario is considered. This requirement shall not necessarily apply to structures scheduled for demolition or to buried foundations. External gamma radiation levels on open lands shall also comply with the basic limit and the ALARA process, considering appropriate-use scenarios for the area.
- d. Surface Contamination. The generic surface contamination guidelines provided in Figure IV-1 are applicable to existing structures and equipment. These guidelines are generally consistent with standards of the NRC (NRC 1982) and functionally equivalent to Section 4, "Decontamination for Release for Unrestricted Use," of Regulatory Guide 1.86, but apply to nonreactor facilities. These limits apply to both interior equipment and building components that are potentially salvageable or recoverable scrap. If a building is demolished, the guidelines in paragraph IV.6a are applicable to the resulting contamination in the ground.
- e. Residual Radionuclides in Air and Water. Residual concentrations of radionuclides in air and water shall be controlled to the required levels shown in paragraph II.1a and as required by other applicable Federal and/or State laws.

5. AUTHORIZED LIMITS FOR RESIDUAL RADIOACTIVE MATERIAL.

- a. Establishment of Authorized Limits. The authorized limits for each property shall be set equal to the generic or derived guidelines unless it can be established, on the basis of specific property data (including health, safety, practical, programmatic and socioeconomic considerations), that the guidelines are not appropriate for use at the specific property. The authorized limits shall be established to (1) provide that, at a minimum, the basic dose limits of in paragraph IV.3, will not be exceeded under the "worst-case" or "plausible-use" scenarios, consistent with the procedures and guidance provided in DOE/CH-8901, or (2) be consistent with applicable generic guidelines. The authorized limits shall be consistent with limits and guidelines established by other applicable Federal and State laws. The authorized limits are developed through the project offices in the field and are approved by the Headquarters Program Office.

Figure IV-1
Surface Contamination Guidelines

Radionuclides ²	Allowable Total Residual Surface Contamination (dpm/100 cm ²) ¹		
	Average ^{3,4}	Maximum ^{4,5}	Removable ^{4,6}
Transuranics, I-125, I-129, Ra-226, Ac-227, Ra-228, Th-228, Th-230, Pa-231	RESERVED 100*	RESERVED 300*	RESERVED 20*
Th-Natural, Sr-90, I-126, I-131, I-133, Ra-223, Ra-224, U-232, Th-232	1,000	3,000	200
U-Natural, U-235, U-238, and associated decay product, alpha emitters	5,000	15,000	1,000
Beta-gamma emitters(radionuclides with decay modes other than alpha emission or spontaneous fission) except Sr-90 and others noted above. ⁷	5,000	15,000	1,000

¹ As used in this table, dpm (disintegrations per minute) means the rate of emission by radioactive material as determined by correcting the counts per minute measured by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.

² Where surface contamination by both alpha- and beta-gamma-emitting radionuclides exists, the limits established for alpha- and beta-gamma-emitting radionuclides should apply independently.

³ Measurements of average contamination should not be averaged over an area of more than 1 m². For objects of less surface area, the average should be derived for each such object.

⁴ The average and maximum dose rates associated with surface contamination resulting from beta-gamma emitters should not exceed 0.2 mrad/h and 1.0 mrad/h, respectively, at 1 cm.

⁵ The maximum contamination level applies to an area of not more than 100 cm².

⁶ The amount of removable material per 100 cm² of surface area should be determined by wiping an area of that size with dry filter or soft absorbent paper, applying moderate pressure, and measuring the amount of radioactive material on the wiping with an appropriate instrument of known efficiency. When removable contamination on objects of surface area less than 100 cm² is determined, the activity per unit area should be based on the actual area and the entire surface should be wiped. It is not necessary to use wiping techniques to measure removable contamination levels if direct scan surveys indicate that the total residual surface contamination levels are within the limits for removable contamination.

⁷ This category of radionuclides includes mixed fission products, including the Sr-90 which is present in them. It does not apply to Sr-90 which has been separated from the other fission products or mixtures where the Sr-90 has been enriched.

* Because no values are presented in this order, FUSRAP uses the values shown based on "DOE Guidelines for Residual Radioactive Materials at FUSRAP and Remote SFMP Sites," Revision 2, March 1987 (CCN 046176).

- b. Application of Authorized Limits. Remedial action shall not be considered complete until the residual radioactive material levels comply with the authorized limits, except as authorized pursuant to paragraph IV.7 for special situations where the supplemental limits and exceptions should be considered and it is demonstrated that it is not appropriate to decontaminate the area to the authorized limit or guideline value.
6. CONTROL OF RESIDUAL RADIOACTIVE MATERIAL. Residual radioactive material above the guidelines shall be managed in accordance with Chapter II and the following requirements.
- a. Operational and Control Requirements. The operational and control requirements specified in the following Orders shall apply to interim storage, interim management, and long-term management.
- (1) DOE 5000.3B, Occurrence Reporting and Processing of Operations Information
 - (2) DOE 5440.1E, National Environmental Policy Act Compliance Program
 - (3) DOE 5480.4, Environmental Protection, Safety, and Health Protection Standards
 - (4) DOE 5482.1B, Environmental, Safety, and Health Appraisal Program
 - (5) DOE 5483.1A, Occupational Safety and Health Program for DOE Employees at Government-Owned, Contractor-Operated Facilities
 - (6) DOE 5484.1, Environmental Protection, Safety, and Health Protection Information Reporting Requirements
 - (7) DOE 5820.2A, Radioactive Waste Management.
- b. Interim Storage.
- (1) Control and stabilization features shall be designed to provide, to the extent reasonably achievable, an effective life of 50 years with a minimum life of at least 25 years.
 - (2) Controls shall be designed such that Rn-222 concentrations in the atmosphere above facility surfaces or openings in addition to background levels, will not exceed:
 - (a) 100 pCi/L at any given point;
 - (b) An annual average concentration of 30 pCi/L over the facility site; and
 - (c) An annual average concentration of 3 pCi/L at or above any location outside the facility site.
 - (d) Flux rates from the storage of radon producing wastes shall not exceed 20 pCi/sq.m-sec., as required by 40 CFR Part 61.
 - (3) Controls shall be designed such that concentrations of radionuclides in the groundwater and quantities of residual radioactive material will not exceed applicable Federal or State standards.

- (4) Access to a property and use of onsite material contaminated by residual radioactive material should be controlled through appropriate administrative and physical controls such as those described in 40 CFR Part 192. These control features should be designed to provide, to the extent reasonable, an effective life of at least 25 years.

c. Interim Management.

- (1) A property may be maintained under an interim management arrangement when the residual radioactive material exceeds guideline values if the residual radioactive material is in inaccessible locations and would be unreasonably costly to remove provided that administrative controls are established by the responsible authority (Federal, State, or local) to protect members of the public and that such controls are approved by the appropriate Program Secretarial Officer.
- (2) The administrative controls include but are not limited to periodic monitoring as appropriate; appropriate shielding; physical barriers to prevent access; and appropriate radiological safety measures during maintenance, renovation, demolition, or other activities that might disturb the residual radioactive material or cause it to migrate.
- (3) The owner of the property should be responsible for implementing the administrative controls and the cognizant Federal, State, or local authorities should be responsible for enforcing them.

d. Long-Term Management.

(1) Uranium, Thorium, and Their Decay Products.

- (a) Control and stabilization features shall be designed to provide, to the extent reasonably achievable, an effective life of 1,000 years with a minimum life of at least 200 years.
- (b) Control and stabilization features shall be designed to limit Rn-222 emanation to the atmosphere from the wastes to less than an annual average release rate of 20 pCi/m²/s and prevent increases in the annual average Rn-222 concentration at or above any location outside the boundary of the contaminated area by more than 0.5 pCi/L. Field verification of emanation rates shall be in accordance with the requirements of 40 CFR Part 61.
- (c) Before any potentially biodegradable contaminated wastes are placed in a long-term management facility, such wastes shall be properly conditioned so that the generation and escape of biogenic gases will not cause the requirement in paragraph IV.6d(1)(b) to be exceeded and that biodegradation within the facility will not result in premature structural failure in violation of the requirements in paragraph IV.6d(1)(a).
- (d) Ground water shall be protected in accordance with legally applicable Federal and State standards.

(e) Access to a property and use of onsite material contaminated by residual radioactive material should be controlled through appropriate administrative and physical controls such as those described in 40 CFR Part 192. These controls should be designed to be effective to the extent reasonable for at least 200 years.

(2) Other Radionuclides. Long-term management of other radionuclides shall be in accordance with Chapters II, III, and IV of DOE 5820.2A, as applicable.

7. SUPPLEMENTAL LIMITS AND EXCEPTIONS. If special specific property circumstances indicate that the guidelines or authorized limits established for a given property are not appropriate for any portion of that property, then the DOE Field Office Manager may request, through the Program Office, that supplemental limits or an exception be applied. The responsible DOE Field Office Manager shall document the decision that the subject guidelines or authorized limits are not appropriate and that the alternative action selected will provide adequate protection, giving due consideration to health and safety, the environment, costs, and public policy considerations. The DOE Field Office Manager shall obtain approval for specific supplemental limits or exceptions from Headquarters as specified in paragraph IV.5, and shall provide to the Headquarters Program Office those materials required by Headquarters for the justification as specified in this paragraph and in the FUSRAP and SFMP protocols and subsequent guidance documents. The DOE Field Office Manager shall also be responsible for coordination with the State and local government regarding the limits or exceptions and associated restrictions as appropriate. In the case of exceptions, the DOE Field Office Manager shall be responsible for coordinating with the State and/or local governments to ensure the adequacy of restrictions or conditions of release and that mechanisms are in place for their enforcement.

a. Supplemental Limits. Any supplemental limits shall achieve the basic dose limits set forth in Chapter II of this Order for both current and potential unrestricted uses of a property. Supplemental limits may be applied to any portion of a property if, on the basis of a specific property analysis, it is demonstrated that

(1) Certain aspects of the property were not considered in the development of the established authorized limits for that property; and

(2) As a result of these certain aspects, the established limits either do not provide adequate protection or are unnecessarily restrictive and costly.

b. Exceptions to the authorized limits defined for a property may be applied to any portion of the property when it is established that the authorized limits cannot reasonably be achieved and that restrictions on use of the property are necessary. It shall be demonstrated that the exception is justified and that the restrictions will protect members of the public within the basic dose limits of this Order and will comply with the requirements for control of residual radioactive material as set forth in paragraph IV.6.

c. Justification for Supplemental Limits and Exceptions. The need for supplemental limits and exceptions shall be documented by the DOE Field Office on a case-by-case basis using specific property data. Every reasonable effort should be made to minimize the use of supplemental limits and exceptions. Examples of specific situations that warrant DOE use of supplemental standards and exceptions are:

- (1) Where remedial action would pose a clear and present risk of injury to workers or members of the public, notwithstanding reasonable measures to avoid or reduce risk.
- (2) Where remedial action, even after all reasonable mitigative measures have been taken, would produce environmental harm that is clearly excessive compared to the health benefits to persons living on or near affected properties, now or in the future. A clear excess of environmental harm is harm that is long-term, manifest, and grossly disproportionate to health benefits that may reasonably be anticipated.
- (3) Where it is determined that the scenarios or assumptions used to establish the authorized limits do not apply to the property or portion of the property identified, or where more appropriate scenarios or assumptions indicate that other limits are applicable or appropriate for protection of the public and the environment.
- (4) Where the cost of remedial action for contaminated soil is unreasonably high relative to long-term benefits and where the residual material does not pose a clear present or future risk after taking necessary control measure. The likelihood that buildings will be erected or that people will spend long periods of time at such a property should be considered in evaluating this risk. Remedial action will generally not be necessary where only minor quantities of residual radioactive material are involved or where residual radioactive material occurs in an inaccessible location at which specific property factors limit its hazard and from which it is difficult or costly to remove. Examples include residual radioactive material under hard-surfaced public roads and sidewalks, around public sewer lines, or in fence-post foundations. A specific property analysis shall be provided to establish that the residual radioactive material would not cause an individual to receive a radiation dose in excess of the basic dose limits stated in paragraph IV.3, and a statement specifying the level of residual radioactive material shall be provided to the appropriate State and/or local agencies for appropriate action, e.g., for inclusion in local land records.
- (5) Where there is no feasible remedial action.

8. SOURCES.

- a. Basic Dose Limits. Dosimetry model and dose limits are defined in Chapter II of this Order.
- b. Generic Guidelines for Residual Radioactive Material. Residual concentrations of radium and thorium in soil are defined in 40 CFR Part 192. Airborne radon decay products are also defined in 40 CFR Part 192, as are guidelines for external gamma radiation. The surface contamination definition is adapted from NRC (1982).
- c. Control of Radioactive Wastes and Residues. Interim storage is guided by this Order and DOE 5820.2A. Long-term management is guided by this Order, 40 CFR Part 192, and DOE 5820.2A.

EXHIBIT II
DOCUMENTS SUPPORTING THE CERTIFICATION OF
THE REMEDIAL ACTION PERFORMED AT THE
HERRING-HALL-MARVIN SAFE COMPANY SITE

1.0 CERTIFICATION PROCESS

The purpose of this certification docket is to provide a consolidated and permanent record of DOE activities at the HHMS site and of the radiological conditions of the property at the time of certification. A summary of the remedial action activities conducted at the site was provided in Exhibit I. Exhibit II contains or cites the letters, memos, reports, and other documents that encompass the entire remedial action process from designation of the site under FUSRAP to certification that no radiological restrictions limit the future use of the property.

2.0 SUPPORTING DOCUMENTATION

For the convenience of the reader, Sections 2.1 through 2.11 are paginated continuously. Each page number begins with the designator "II" to distinguish the numbering systems used in the supporting documentation that constitutes Exhibit II. These page numbers are listed in the table of contents at the beginning of this docket and in Sections 2.1 through 2.11. Lengthy documents are incorporated by reference only and are cited with the abbreviation "Ref."; the actual documents are provided as attachments to the certification docket. The number following the term "Ref." corresponds to the number in the reference list at the end of Exhibit I.

2.1 DECONTAMINATION OR STABILIZATION CRITERIA

The following documents contain the guidelines that determine the need for remedial action. The HHMS site has been decontaminated to comply with these guidelines. The first document listed is included as Appendix A of Exhibit I.

DOE Order 5400.5, *Radiation Protection of the Public and Environment*, Chapter IV, "Residual Radioactive Material," Washington, D.C., 1993. App. I-A

DOE, *Description of the Formerly Utilized Sites Remedial Action Program*, ORO-777, Oak Ridge, Tenn., September 1980. Ref. 1

Memorandum from J. J. Fiore (DOE-HQ) to S. W. Ahrends (DOE-ORO), "Revised Guidelines for Residual Radioactive Material at FUSRAP and Remote SFMP Sites." (Attachment: *U.S. Department of Energy Guidelines for Residual Radioactive Material at Formerly Utilized Sites Remedial Action Program and Remote Surplus Facilities Management Program Sites*, Revision 2, March 1987), BNI CCN 045227, April 2, 1987. Ref. 10

DOE, *Design Criteria for Formerly Utilized Sites Remedial Action Program (FUSRAP) and Surplus Facilities Management Program (SFMP)*, 14501-00-DC-01, Rev. 2, Oak Ridge, Tenn., March 1986. Ref. 11

2.2 DESIGNATION OR AUTHORIZATION DOCUMENTATION

The following documentation designated or authorized the remedial action at the HHMS site.

	Page
Memorandum from R. P. Whitfield, (Deputy Assistant Secretary for Environmental Restoration, DOE) to Joe La Grone (Manager, Oak Ridge Operations, DOE), "Authorization for Remedial Action at the Former Herring-Hall-Marvin Safe Co., Hamilton, Ohio," BNI CCN 115803, Oak Ridge, Tenn., April 20, 1994.	II-5
Memorandum from W. Alexander Williams (Designation and Certification Manager, DOE) to file, "Authority Determination - Former Herring-Hall-Marvin Safe Co., Hamilton, Ohio," BNI CCN 114465, Oak Ridge, Tenn., March 8, 1994.	II-6

memorandum

DATE: APR 20 1994
REPLY TO: EM-421 (W. A. Williams, 903-8149)
ATTN OF:

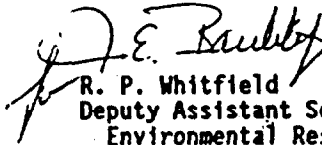
1994 APR 25 PM 2:23

SUBJECT: Authorization for Remedial Action at the Former Herring-Hall-Marvin Safe Company, Hamilton, Ohio

TO: Manager, Oak Ridge Operations Office

This is to notify you that the Former Herring-Hall-Marvin Safe Company Site at 1550 Grand Boulevard in Hamilton, Ohio, is designated for remedial action under the Formerly Utilized Sites Remedial Action Program (FUSRAP). This notification does not constitute a FUSRAP baseline change control approval. Approval of the baseline change will be accomplished through the normal change control procedures.

The site was used by the former Manhattan Engineer District for the machining and shaping of uranium metal during the 1940s. A radiological survey found residual uranium within the building. Because of the limited extent of the contamination, the site may be remediated using the expedited cleanup process now under development.



R. P. Whitfield
Deputy Assistant Secretary for
Environmental Restoration

cc:
J. Fiore, EM-42
J. Wagoner, EM-421
W. A. Williams, EM-421
L. Price, OR
D. Adler, OR

memorandum

DATE: MAR 08 1994
REPLY TO: EM-421 (W. A. Williams, 903-8149)
ATTN OF:
SUBJECT: Authority Determination -- Former Herring-Hall-Marvin Safe Co.,
Hamilton, Ohio

MAR 08 1994 9:11

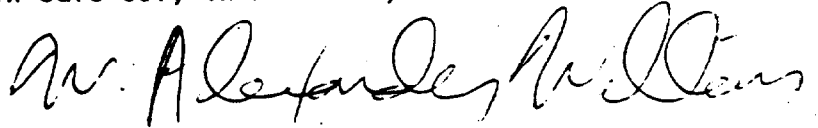
TO: The File

The attached review documents the basis for determining whether the Department of Energy (DOE) has authority for taking remedial action at the former Herring-Hall-Marvin Safe Co. facility in Hamilton, Ohio, under the Formerly Utilized Sites Remedial Action Program (FUSRAP). The facility was used for the shaping and machining of uranium metal by the Manhattan Engineer District (MED) during the Second World War. The following factors are significant in reaching a decision and are discussed in more detail in the attached authority review:

- o Herring-Hall-Marvin Safe Co. was likely to have been closely controlled by the MED directly through the approval of contracts and purchase orders or indirectly through prime contractors;
- o An employee of the MED was apparently stationed at the site during some or all of the World War Two production activities;
- o There were significant security requirements in all activities involving uranium during this time period;
- o The uranium residues at the site are likely the result of the uranium metal machining;
- o The uranium metal was furnished by the Government;
- o The MED retained responsibility for health and safety protection and paid for medical services relating to the project;
- o In all likelihood, the contractor had no knowledge of the nature of hazards associated with the handling of uranium metal;
- o A 1985 authority review found that DOE had authority for remedial action at a group of similar metal fabrication sites; and
- o A radiological survey in 1993 identified residual uranium in the third floor area of the building above the levels specified in DOE Order 5400.5, Chapter IV.

A draft copy of the attached authority review was furnished to the Office of General Counsel. That office indicated that the review was adequate.

After review of the available original records and the authority review, I have determined that the DOE has authority to conduct remedial action at the former Herring-Hall-Marvin Safe Co., in Hamilton, Ohio.



W. Alexander Williams, PhD
Designation and Certification Manager
Division of Off-Site Programs
Office of Eastern Area Programs
Office of Environmental Restoration

Attachment

cc:

S. Miller, GC-11
M. Murray, Oak Ridge National Laboratory
D. Adler, Oak Ridge Operations Office

**Authority Review for the Former
Herring-Hall-Marvin Safe Co., Hamilton, Ohio**

1.0 INTRODUCTION

As part of the Formerly Utilized Sites Remedial Action Program (FUSRAP), the U.S. Department of Energy (DOE) has reviewed available information on the former Herring-Hall-Marvin Safe Co. site, Hamilton, Ohio. The site has been investigated for potential inclusion into FUSRAP, which applies to certain sites previously involved with activities of the Manhattan Engineer District (MED) or U.S. Atomic Energy Commission (AEC), both DOE predecessors. Such sites may require remedial action if they have residual contamination from those previous activities. This review is conducted to determine whether DOE has the authority to conduct remedial action at the former Herring-Hall-Marvin Safe Co. site.

The former Herring-Hall-Marvin Safe Co., now owned by Diebold Co., is located at 1550 Grand Boulevard in Hamilton, Ohio. The facility is a large, roughly rectangular building (approximately 300,000 ft.²), constructed mostly of wood. The interior is primarily an open design with few walls and a support structure of columns and beams with cross braces. High bays are offset by rows of windows at the ceiling. Initial site reports used for the original radiological survey of the site noted that uranium was machined on lathes in the large machine room on the first floor of this section of the building and was flooded with a water-soluble cooling oil while being machined. The uranium machining activity was said to be relatively small scale and apparently covered a relatively short period of time.

Recent interviews with individuals formerly associated the site have revealed that uranium machining operations for MED also occurred in the Southeast corner of the building in a section with three floors, accessed by an elevator. Uranium was machined on the third floor in a windowed room with concrete columns that contained several machines.

The remainder of this review consists of the following sections:

- 2.0 Operational History
- 3.0 Other Considerations
- 4.0 Current Conditions
- 5.0 Authority Analysis
- 6.0 Discussion and Conclusions
- 7.0 Copies of References

Information presented in these sections is in summary form. References are identified in Section 7.0 and copies are included.

2.0 OPERATIONAL HISTORY

Intermittently from the 1940s to the early 1950s, the former Herring-Hall-Marvin Safe Co. machined uranium slugs from rolled stock under subcontract to a prime MED contractor. Records indicate that two work orders were performed at the site in 1943 in support of the MED and one in 1951 for the AEC. Work at the Hamilton site involved machining of uranium slugs from uranium billets. The uranium machining activity was relatively small scale and appears to have covered short periods of time. The available records indicate that work was performed at the site into August 1951.

The former Herring-Hall-Marvin Safe Co. was one of several commercial metal fabrication firms that participated in the MED slug procurement program under purchase orders and subcontracts with the University of Chicago (Metallurgical Laboratory) and DuPont. The following summary of conditions that prevailed during the period is significant to a basic understanding of the manner in which this procurement program was conducted (ref. a).

- a. Metal fabrication and other services were procured through subcontracts and/or purchase orders initiated by the University of Chicago and DuPont and approved by a Government contracting officer. In most instances, information on the services purchased, as reflected on purchase orders and subcontracts, was limited, probably to prevent classification of the document. In at least one instance, uranium metal was identified only as "special metal" and in other instances as metal rods or tubes.
- b. Equipment and facilities used were contractor owned and operated. And, in most instances, contractual arrangements were for the use of manpower and equipment to perform work specified under the direction and control of the MED or its agent.
- c. During the initial phase of the program in the early 1940's, contractors or site operators had little or no knowledge of the materials processed or the potential hazards associated with the handling or working with the radioactive materials. The MED was responsible for identification of the hazards, monitoring the work place and health of the workers in the contractor's plants, and making specific recommendations for measures to protect the workers against the hazards of handling radioactive materials.
- d. Radioactive materials furnished the contractors or site operators were Government owned. Both finished product and scrap (residue) remained the property of the Government. Accountability was such that every effort was made to balance the amount of metal delivered to the contractors with the finished product and the scrap recovered.

3.0 OTHER CONSIDERATIONS

An earlier authority review, dated October 28, 1985, examined DOE's authority for a large group of metal fabrication contractors which provided metal shaping or machining services during the Second World War. This earlier authority review found that DOE had authority to conduct remedial action at the sites, although sufficient radiological data were not available at that time to include or exclude most of those sites from FUSRAP. Because the former Herring-Hall-Marvin Safe Co. site was also a metal fabrication contractor during this same time period, the earlier authority review also applies to the site. Consequently, DOE has authority to conduct remedial action at this site (ref. a).

4.0 CURRENT CONDITIONS

The former Herring-Hall-Marvin Safe Co. site was purchased by and is owned by the Diebold Safe Co. Currently, the building is unoccupied.

On August 29 and 30, 1988, and April 24, 1989, radiological surveys were conducted at the site at the request of DOE and with the consent of the property owner. The results of the radiological surveys demonstrated no radionuclide concentrations in excess of the applicable DOE criteria for air and soil samples remaining at the site. After removal of small spots of uranium left from the machining operation, no beta or gamma radiation above background could be detected (ref. b.). Consequently, the site was eliminated from consideration under FUSRAP.

It has recently been found that uranium operations for the MED also occurred on the third floor section of the southeast corner of the building. Radiological surveys of the site performed in 1988 and 1989 did not include that area of the building because it was not previously identified as an area where uranium operations took place. Consequently, the site was once again brought under consideration for FUSRAP. A second radiological survey, conducted by Oak Ridge National Laboratory, identified uranium in portions of the floor and walls of the third floor area (ref. f).

5.0 AUTHORITY ANALYSIS

The authority analysis determination is made according to the FUSRAP protocol by considering the answers to five questions. The answers to these questions based on a review of available information are provided below.

5.1 Was the site/operation owned by a DOE predecessor or did a DOE predecessor have significant control over the operations or site?

DOE and its predecessors never owned the site. Equipment and facilities were owned and operated by the former Herring-Hall-Marvin Safe Co. The site was purchased by Diebold Co. after MED operations

at the site were discontinued. Although information pertaining to operations at the site during the time metal fabrication services were performed for the MED is limited, it is likely that the MED and/or its agents exercised significant control over the operations, including handling and control of the uranium metal during the fabrication process. Historical documents show that representatives of both the University of Chicago Metallurgical Laboratory and DuPont provided safety and health oversight (ref c.,d., e.). The MED also had an onsite employee during some operations.

- 5.2 Was a DOE predecessor agency responsible for maintaining or ensuring the environmental integrity of the site (i.e., was it responsible for cleanup)?

No records addressing environmental integrity have been located. However, as with other metal fabrication sites during the era, DOE predecessors appear to have been responsible for health and safety during the fabrication process.

- 5.3 Is the waste or radioactive material on the site the result of DOE predecessor related operations?

No information has been discovered that would indicate the presence of radioactive material on the site except for the uranium metal that was processed for the MED.

- 5.4 Is the site in need of further cleanup and was the site left in a non-acceptable condition as a result of DOE predecessor related activity?

Radiological surveys, conducted at the request of DOE in 1988 and 1989, demonstrated no radionuclide concentrations in excess of the applicable DOE criteria for air and soil samples remaining at the site. After removal of small spots of uranium left from the machining operation, no beta or gamma radiation above background could be detected. As a result, it was deemed that further cleanup was not necessary and the site was eliminated from consideration under FUSRAP.

It has recently been discovered that uranium operations for the MED occurred on the third floor section of the southeast corner of the building. The 1988 and 1989 radiological surveys of the site did not include that area of the building because it was not previously identified as an area where uranium operations took place. The 1993 radiological survey identified uranium in this area of the building in excess of the limits in DOE Order 5400.5, Chapter IV.

- 5.5 Did the present owner accept responsibility for the site with the knowledge of its contaminated condition and that additional remedial measures are necessary before the site is acceptable for use without radiological restrictions?

There is no indication that the present owner was aware of the prior use of the facility for machining uranium.

6.0 DISCUSSIONS AND CONCLUSIONS

Based upon historical information and recent interviews with individuals formerly related to the MED operations at the site, as well as information contained in a previous authority review that addressed metal fabrication services performed under purchase order or subcontract with MED or its agent by a number of commercial firms during the period, there is sufficient evidence to indicate authority for remedial action at the former Herring-Hall-Marvin Safe Co. site under the authority of the Atomic Energy Act through FUSRAP.

7.0 REFERENCES

The following is the list of references that are provided in this section:

- a. DOE letter from A. Whitman to A. Wallo: Authority decisions for a number of sites; October 28, 1985; with attached authority recommendation from C. Young to A. Whitman: Authority Review - Metal Fabrication Contractor Sites; September 19, 1985.
- b. Foley, R. D., and L. M. Floyd. Results of the Radiological Survey at Diebold Safe Company, 1550 Grand Boulevard Hamilton, Ohio, (H0001). ORNL/RASA-88/59. Oak Ridge National Laboratory, February 1990.
- c. Nickson, J. J., M.D., 1943. Metallurgical Laboratory letter to Herring-Hall-Marvin Safe Co., regarding recommendations for health examinations of workers. April 24.
- d. Neuroid, W. D., M.D., 1943. Metallurgical Laboratory letter to Mr. H. L. Henkel of Herring-Hall-Marvin Safe Co., regarding health examinations and air monitoring. August 4.
- e. Miles, J. B., 1943. DuPont de Nemours & Company letter to C. E. Daniels regarding safety precautions at Herring-Hall-Marvin Safe Company. April 20.
- f. Murray, M. E. and C. A. Johnson, 1994, Results of the Radiological Survey at the Former Herring-Hall-Marvin Safe Co., 3rd Floor, 1550 Grand Boulevard, Hamilton, Ohio (H0001) (in preparation).

2.3 RADIOLOGICAL CHARACTERIZATION REPORTS

The pre-remedial action status of the HHMS site is described in the following documents.

	Page
ORNL, <i>Results of the Radiological Survey at Diebold Safe Company, 1550 Grand Boulevard, Hamilton, Ohio (HO001)</i> , ORNL/RASA-88/59, Oak Ridge, Tenn., February 1990.	Ref. 3
ORNL, <i>Results of the Radiological Survey of the Former Herring-Hall-Marvin Safe Company (3rd Floor), 1550 Grand Boulevard, Hamilton, Ohio (HO001)</i> , ORNL/RASA-94/1, Oak Ridge, Tenn., March 1994.	Ref. 4
BNI, "Hazard Analysis Preliminary Site Visit and Scoping for Former Herring-Hall-Marvin Safe Company (3rd Floor)," BNI CCN 115452, Oak Ridge, Tenn., April 1994.	Ref. 12
Letter from Michael E. Murray (ORNL) to W. A. Williams (DOE), "Radiological Survey of the Diebold Facility, Hamilton, Ohio," BNI CCN 107512, August 16, 1993.	II-14

OAK RIDGE NATIONAL LABORATORY

OPERATED BY MARTIN MARIETTA ENERGY SYSTEMS, INC.

POST OFFICE BOX 2008
OAK RIDGE, TENNESSEE 37831

1993 AUG 19 PM 1:39

August 16, 1993

Dr. W. A. Williams
Department of Energy
Trevion II Building
EM-421
Washington, D. C. 20585-0002

Dear Dr. Williams:

Radiological Survey of the Diebold Facility, Hamilton, Ohio

At the Department of Energy's (DOE) request a radiological survey of the Diebold facility (third floor) in Hamilton, Ohio was conducted by a team from Oak Ridge National Laboratory (ORNL) on August 5-6, 1993. The facility is located at the northeast corner of Grand Boulevard and Erie Boulevard and is currently not in operation. In addition to the survey team, Mark Tucker, Mary Ann Jackson (both of Diebold) and you were present during the survey. Diebold also maintains 24 hour security personnel.

The survey included the third floor (approx. 10,000 feet²), the stairwell leading to the third floor, the freight elevator (and elevator shaft) and a very brief check of the second floor and first floor loading dock. Generally about 2000 ft.² of the third floor has residual uranium above DOE guidelines. After the radioactivity was found, an analysis was performed to verify that uranium was indeed the isotope being detected and a check-point established to ensure the residual uranium was not being inadvertently carried off of the third floor. Smear samples were taken at locations where the most uranium found and the analysis of the smears did not indicate the uranium was transferrable in quantities above DOE guidelines. While no uranium was found in the elevator of the shaft, the small room above the elevator had spots above guidelines. Apart from the third floor, only three very small spots of uranium were found but the uranium was removed by sampling.

Prior to leaving the Diebold site, the security guard and Mary Ann Jackson were briefed as to the survey results. The detailed report of the survey results is being prepared and should be available in the near future. Please call me (615-574-5838) if there are questions concerning this survey or we may be of further assistance.

Sincerely,



Michael E. Murray
Measurement Applications
and Development Group

MEM:ec

c: D. G. Adler (DOE-ORO)
W. D. Cottrell
R. D. Foley

2.4 NATIONAL ENVIRONMENTAL POLICY ACT AND COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT DOCUMENTS

Documents listed in this section fulfill the NEPA documentation requirements for the HHMS site.

	Page
Memorandum from Joe La Grone (Manager DOE-ORO) to Thomas P. Grumbly (Assistant Secretary for Environmental Management), "CX Determination - Removal Action at the Former Herring-Hall-Marvin Safe Company Site," BNI CCN 123195, November, 15, 1994.	II-16
Memorandum from D. Sexton (BNI) to G. Palau (BNI), "Scoping Notice: Former Herring-Hall-Marvin Safe Company, Hamilton, Ohio," BNI CCN 122612, November 3, 1994.	II-20
Memorandum from Sam Shah (BNI) to G. Palau (BNI), "HHMS Site Certification for Compliance to 40 CFR 265," BNI CCN 126346, February 14, 1995.	II-24

United States Government

Department of Energy

Oak Ridge Operations

memorandum

DATE: November 15, 1994

REPLY TO
ATTN OF: EW-93:Hartman

SUBJECT: **CX DETERMINATION - REMOVAL ACTION AT THE FORMER HERRING-HALL-MARVIN SAFE COMPANY SITE**

TO:

Thomas P. Grumbly, Assistant Secretary for Environmental Management, EM-1

Attached is a categorical exclusion (CX) determination describing the proposed removal and disposal of radioactively contaminated materials at the former Herring-Hall-Marvin Safe Company site, Hamilton, Ohio. I have determined that this action conforms to an existing National Environmental Policy Act (NEPA) Subpart D CX and may be categorically excluded from further NEPA review and documentation.

This memorandum is a routine notification of a CX determination. The authority for this determination was delegated to the Oak Ridge Operations (ORO) Manager by the Assistant Secretary for Environmental Restoration and Waste Management on December 10, 1991.

If you have any questions concerning NEPA compliance issues, please contact Patricia W. Phillips, ORO NEPA Compliance Officer, at (615) 576-4200.



Joe La Grone
Manager

Attachment

cc w/attachment:

- D. G. Adler, EW-93, ORO
- S. C. Golian, EM-22, TREV II
- L. E. Harris, EM-431, TREV II
- G. S. Hartman, EW-93, ORO
- N. Hendrix, EW-91, ORO
- G. L. Palau, BNI
- P. W. Phillips, SE-311, ORO
- J. Russell, EM-421, BAH, TREV II
- R. S. Scott, EM-20, FORS
- W. M. Seay, EW-93, ORO
- J. D. Waddell, SAIC
- J. W. Wagoner II, EM-421, QO

**CATEGORICAL EXCLUSION (CX) FOR
REMOVAL ACTION AT THE FORMER
HERRING-HALL-MARVIN SAFE COMPANY SITE**

PROPOSED ACTION: Removal of radioactively contaminated materials at the former Herring-Hall-Marvin Safe Company site.

LOCATION: Former Herring-Hall-Marvin Safe Company site, Hamilton, Ohio [FUSRAP site].

The former Herring-Hall-Marvin Safe Company site is located at 1550 Grand Boulevard, Hamilton, Ohio, and is part of DOE's Formerly Utilized Sites Remedial Action Program (FUSRAP). Intermittently from the 1940s to the early 1950s, the Herring-Hall-Marvin Safe Company machined uranium slugs from rolled stock under subcontract to the U.S. Atomic Energy Commission (AEC).

DESCRIPTION OF PROPOSED ACTION: The proposed action is to safely remove, transport, and dispose of radioactively contaminated materials at the former Herring-Hall-Marvin Safe Company site, thereby eliminating potential exposure of workers and the public to contamination exceeding applicable cleanup guidelines. Proposed site activities include, but are not limited to, the following: Excavation of concrete floor areas and subsurface soils; decontamination of structural surfaces in the portion of the building used for AEC contract work; decontamination of an elevator (including the shaft) and a stairwell; decontamination of drains and associated drain-lines; temporary onsite storage of wastes; packaging, transportation, and disposal of materials at existing appropriately licensed disposal facilities; and disposal of waste/debris below DOE contamination/radiological release guidelines in a commercial disposal facility. In the event that disposal delays require temporary staging and/or storage of contaminated wastes, storage would be conducted in accordance with all applicable regulations.

The proposed removal action would be conducted under DOE authorities pursuant to the Atomic Energy Act (AEA), would be consistent with the final remedial action for the site, and meets the eligibility criteria for conditions that are integral elements of actions eligible for categorical exclusion as stated in 10 CFR 1021:

1. The proposed action would not threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE orders. All activities would be managed by FUSRAP.
2. The proposed action would not require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators

**CATEGORICAL EXCLUSION (CX) FOR
REMOVAL ACTION AT THE FORMER
HERRING-HALL-MARVIN SAFE COMPANY SITE (cont.)**

and facilities for treating wastewater, surface water, and groundwater). Wastes generated during the proposed action would be collected, analyzed to determine waste characteristics, and segregated as they are generated into nonhazardous, RCRA-only, mixed, and radioactive-only categories. If hazardous wastes are determined to be commingled with radioactive waste, removal and temporary storage would be done in accordance with applicable requirements; the mixed waste would then be disposed of at an existing facility designed to accept these wastes. Wastes would be transported offsite in accordance with applicable transportation and disposal requirements and disposed of at existing facilities or stored temporarily onsite in accordance with applicable requirements pending evaluation of final disposal options. If temporary storage is required, wastes generated from these activities would be managed in accordance with regulations applicable to the types of wastes being managed.

3. The proposed action would not disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases. The removal action would be conducted in an environmentally responsible manner to ensure site-specific control of environmental contamination.
4. The proposed action would not adversely affect any environmentally sensitive resources defined in the Federal Register Notice referenced below, including archaeological or historical sites; potential habitats of threatened or endangered species; floodplains; wetlands; areas having a special designation such as Federally- and state-designated wilderness areas, national parks, national natural landmarks, wild and scenic rivers, state and Federal wildlife refuges, and marine sanctuaries; prime agricultural lands; special sources of water such as sole-source aquifers; and tundra, coral reefs, or rain forests. The proposed action would occur in a previously disturbed/developed area.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal, and the proposal is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

The estimated cost for this action is less than \$2 million and would take less than 12 months to complete.

**CATEGORICAL EXCLUSION (CX) FOR
REMOVAL ACTION AT THE FORMER
HERRING-HALL-MARVIN SAFE COMPANY SITE (cont.)**

CX TO BE APPLIED: From the DOE NEPA Implementing Procedures, 10 CFR 1021, Subpart D, Appendix B, under actions that "Normally Do Not Require EAs or EISs," "B6.1 Removal actions under CERCLA (including those taken as final response actions and those taken before remedial action) and removal-type actions similar in scope under RCRA and other authorities (including those taken as partial closure actions and those taken before corrective action), including treatment (e.g., incineration), recovery, storage, or disposal of wastes at existing facilities currently handling the type of waste involved in the removal action...."

I have concluded that the proposed action meets the requirements for the CX referenced above. Therefore, I recommend that the proposed action be categorically excluded from further NEPA review and documentation.

Patricia W. Phillips 10-4-94
Patricia W. Phillips, ORO NEPA Compliance Officer Date

Based on my review and the recommendation of the ORO NEPA Compliance Officer, I recommend that the proposed action be categorically excluded from further NEPA review and documentation.

Bryan D. Walker 11/10/94
Bryan D. Walker, Acting Assistant Manager for Date
Environmental Restoration and Waste Management, ORO

Based on the recommendations of the ORO NEPA Compliance Officer and the Assistant Manager for Environmental Restoration and Waste Management, I determine that the proposed action is categorically excluded from further NEPA review and documentation.

Joe La Grone 11/14/94
Joe La Grone, Manager, DOE Oak Ridge Operations Office Date

122612

Bechtel

Interoffice Memorandum

To	G. L. Palau	File No.	7440/135
Subject	Scoping Notice: Former Herring-Hall-Marvin Safe Co., Hamilton, Ohio	Date	November 3, 1994
		From	D. D. Sexton <i>DDS</i>
		Of	ES&H
Copies to	T. E. Morris G. R. Galen <i>GRG</i> J. S. Allison	At	Oak Ridge Ext. 4-3643

SCOPING NOTICE

INTRODUCTION

The purpose of this scoping notice is to formalize the identification and application of federal and state rules and regulations that may apply to the cleanup of the Former Herring-Hall-Marvin Safe Company Site (hereinafter referred to as the Hamilton Site), in Hamilton, Ohio. This environmental compliance evaluation is based on information contained in the Radiological Survey of the site which provides the nature and extent of contamination upon which this regulatory review relies. This scoping notice reviews various environmental regulations; however, neither OSHA nor DOT regulations are within the scope of this review.

REGULATORY FRAMEWORK

Modified Observational Approach

Per the direction of the Project Manager, cleanup of the Hamilton site will utilize the draft DOE Modified Observational Approach (MOA) as described in CCN 118781, dated July 27, 1994. The MOA is an expedited method of remediating DOE sites utilizing DOE's authority under the Atomic Energy Act of 1954, and subsequent related legislation. The MOA Protocol is similar to the Expedited Protocol, except it was modified to address more complicated NEPA-only sites that may not be remediated immediately after designation. The major difference between the two alternatives is that the designation contractor would no longer be responsible for determining the boundaries or extent of contamination because of the more complex surveys needed. Bechtel National, Inc., as the PMC will be responsible for defining the extent of contamination and performing design engineering and remedial action at the Hamilton site.



National Environmental Policy Act (NEPA)

A Categorical Exclusion (CX) under NEPA must be prepared specific to the activities planned for the site. The CX must be submitted to the DOE Oak Ridge Operations NEPA Compliance Officer for review and approval. The CX to be applied is "B.6.1 Removal Actions under CERCLA (including those taken as final response action and those taken before remedial action) and removal-type actions similar in scope under RCRA and other authorities." The CX for the Hamilton Site has been submitted to and initialed off by the ORO NEPA Compliance Officer. Final concurrence is pending.

DOE ORDER 5400.5

Cleanup of the Hamilton Site will be conducted pursuant to DOE Order 5400.5. However, the Department of Energy (DOE) is currently in the process of codifying all DOE Orders. A proposed rule which would codify DOE Order 5400.5 (10 CFR 834) has been published (58 FR 16268). The final rule is expected to be published before the end of this calendar year. Upon codification of 10 CFR 834, the requirements governing cleanup of radioactively contaminated areas at the Hamilton Site would have to be reevaluated, particularly if the new requirements become effective before remediation commences. It is recommended that cleanup be completed prior to the effective date of the new regulations. Based on the proposed rule, it is expected that 10 CFR 834 will significantly change existing cleanup requirements at DOE sites.

ADDITIONAL REGULATORY CONSIDERATIONS**Clean Air Act (CAA)**

All contamination is located indoors. Since no release of airborne contamination is expected to ambient air, application of the radionuclide NESHAPs provisions are not an issue. All Ohio regulations were searched using the ENFLEX INFO database for references to regulations on the use of HEPA filters in equipment. No regulations were identified other than those for asbestos. Since no asbestos has been identified at the site, there are no state regulations requiring the use of a vacuum system with a HEPA filter. However, HEPA filters may be used at the discretion of the Site Superintendent.

Clean Water Act (CWA)

Since all contamination at the site is located indoors, surface waters are not impacted by either process discharges or stormwater. Therefore, provisions of the CWA are not applicable.



Resource Conservation and Recovery Act (RCRA)

No RCRA regulated waste has been identified at the site, nor is any expected based on process knowledge. Since RCRA regulations now also cover contaminated debris (e.g., concrete rubble and other building material) any such building material that is suspected to have been contaminated from leakage or spills of hazardous waste must be tested using the RCRA TCLP procedure. Should a RCRA waste be encountered, it must be managed, stored, and disposed of in accordance with Ohio Hazardous Waste Regulations.

Should RCRA waste be encountered and site activities extend to December 19, 1994, the recently promulgated treatment standards of 59 FR 47982 will be reviewed for applicability prior to land disposal or shipment of the waste for final disposal.

Toxic Substances Control Act (TSCA)

No TSCA regulated waste (e.g., PCBs or asbestos) has been identified, nor is any expected based on process knowledge, at the site. Should TSCA waste be encountered, it will be managed, stored, and disposed of in accordance with TSCA regulations.

National Historic Preservation Act (NHPA)

Since this removal action is a federal undertaking, compliance with §106 of the NHPA is required. A letter was sent to the Ohio State Historic Preservation Officer (SHPO) indicating DOE's opinion that site activities will not detrimentally impact any historic properties (CCN 120673). In a letter dated October 12, 1994, the Ohio SHPO provided concurrence that there are no historic properties at the Hamilton Site (CCN 121884).

State Radioactive Waste Code

A strong case can be made, based on statutory and regulatory interpretation of federal and state law, that DOE is not subject to Ohio's radiation protection regulations. This is based on the fact that Ohio's authority to regulate radioactive materials is derived from the Nuclear Regulatory Commission (NRC). DOE must only follow NRC requirements where there is not a DOE requirement or regulation on point. Therefore, NRC and/or state radiation protection regulations are not generally applicable to DOE.

Another potential issue involves the crossing of state lines with radioactive waste during transportation to a permanent disposal site. We recommend that this issue be researched and evaluated by Waste Management and Treatment for applicability to the Hamilton site.



Potential Local Ordinances

Local officials must be contacted to determine whether any local ordinances restrict construction or demolition operation hours. Construction work is scheduled during the day to avoid disturbing the public. A construction permit, plumbing permit, electrical permit, and fire protection system modification permit are required and will be obtained from local officials.

CONCLUSION

This review has identified the major regulatory drivers that guide activities during the Hamilton Site cleanup. Additional actions, such as contacts with local officials will be required. These actions will be tracked and coordinated by the Missouri-Ohio Environmental Compliance Coordinator upon direction from the Project Manager.

Based on the above assumptions and research, environmental compliance has not identified any additional environmental regulations, other than those identified and referenced to date, that would impact the Hamilton Site work.



Bechtel*Interoffice Memorandum*

To	G. Palau	File No.	2650/135
Subject	HHMS Site Certification for Compliance to 40 CFR 265	Date	February 14, 1995
		From	Sam Shah
		of	FUSRAP
Copies to	J. Allison P. Champ G. Drexel S. Rao D. Sexton T. Taylor S. Thieme K. Thompson	At	Oak Ridge Ext. 241-5315

Treatment of hazardous waste in units designed and operated under 40 CFR 265.1101 (e.g., containment building) requires certification by a qualified registered professional engineer. The professional engineer must certify that the building design meets the requirements of 40 CFR 265.1101 (a)-(c).

On December 21, 1994 the former Herring-Hall-Marvin Safe Company building located at 1550 Grand Avenue in Hamilton, Ohio, was evaluated in accordance with the containment building design requirements of 40 CFR 265.1101. This evaluation was conducted to determine whether radiologically contaminated lead waste could be treated inside the building in accordance with 40 CFR 268.7(a)(4). The results of the building evaluation are discussed below.

Subpart 265.1101**(a)**

1. The subject building is completely enclosed with floor, exterior walls and roof (with exception of entry points which are secured with operable coverings). The structure is built with concrete brick and Concrete Masonry Units (CMU) exterior walls. The building is structurally capable to sustain normal operation of heavy equipment, personnel, settlement, uplift, pressure gradient, compression, operational stress, wear and tear, and climatic conditions. The exterior enclosure can maintain its structural integrity during normal contact with the waste management equipment.



Subpart 265.1101 (a)-1.....Cont.

The building components are in a sound structural condition which can prevent exposure of managed waste to the environment and can assure containment of the managed waste.

2. The building components acting as a primary enclosure are structurally sound to withstand the contributing load, waste contents, operational stress, dynamic and static loading due to climatic and physical conditions. The design consideration of the building contains an adequate safety factor to ensure management of the waste without any potential of collapse.

Building material, basically concrete, is inherent to the waste which will be managed within the subject building.

The doors and windows of the building will provide effective barrier against fugitive dust emission from the proposed waste to be staged and treated at the subject facility. The planned staging and processing of the waste will not be performed in the proximity of such openings.

The egress and ingress locations are designed and located in a manner to develop and to implement a containment tracking plan without substantial alteration to building containment.

3. The secondary containment will be provided by the container (i.e., plastic or metal) which will not leak, corrode, or fail while containing the generated waste.
4. The outer shell which will be the primary barrier basically consists of exterior walls, roof, and ground floor slab. It is capable of withstanding the movement of personnel and equipment handling waste during the waste processing/staging period. The outer shell construction and material are of appropriate material to maintain their physical and chemical characteristics during and after the waste management.

(b) N/A Management of liquid waste is not planned at the subject facility.

SS:kt:OH_0183

Concurrence: D. Sexton DS
T. Taylor T

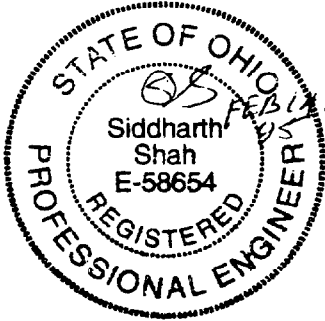


Based on the above findings and observation and to best of my knowledge, I certify that the subject facility is adequately designed and built to meet the requirements of 40 CFR 265.1100 and 265.1101.

Sincerely,

Siddharth Shah

Siddharth Shah, P.E.
Ohio State Registered
Professional Engineer



ACTION REQ'D	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	DUE DATE _____
RESPONSE TO CHRON NO. _____			
<input type="checkbox"/> FFA	<input type="checkbox"/> Permit	<input type="checkbox"/> Milestone	<input type="checkbox"/> OcR
<input type="checkbox"/> CCN	<input type="checkbox"/> CAR	<input type="checkbox"/> Mid-Yr	<input type="checkbox"/> Yr-End
<input type="checkbox"/> Periodic Rpt			



2.5 REAL ESTATE LICENSES

Fully executed real estate licenses were obtained from the property owner before remedial action began.

Page

Memorandum from Katy Kates (DOE Realty Officer) to William Burchfield (property owner), "Real Estate License REORDOER-7-95-0122, Herring-Hall-Marvin Safe Company, Hamilton, Ohio," BNI CCN 125134, January 6, 1995.

II-28



Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831—

January 6, 1995

William Burchfield
1627 Bender Avenue
Hamilton, Ohio 45011

Dear Mr. Burchfield:

REAL ESTATE LICENSE REORDOER-7-95-0122, HERRING-HALL-MARVIN SAFE COMPANY,
HAMILTON, OH

Enclosed for your records is a fully executed license between you and the Department of Energy. If you have any questions concerning the real estate instrument, please feel free to call me at 615-576-0977 or Doug Shook, Bechtel Real Estate Specialist, at 615-576-5914.

Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in cursive script that reads "Katy Kates".

Katy Kates
Realty Officer

Enclosure
As stated

cc: Doug Shook, Bechtel

DEPARTMENT OF ENERGY

LICENSE

PROJECT: HERRING-HALL-MARVIN SAFE COMPANY, HAMILTON, OH
PURPOSE: REMEDIAL ACTION

THIS LICENSE, between William Marcell Burchfield, known as the "Grantor" and the U.S. Department of Energy, known as the "Grantee", is subject to the following terms and conditions.

1. Rights Granted - The Grantor grants to the Grantee, its agents, employees, or representatives permission to use the premises or facilities, together with ingress and egress, for the purpose of performing remedial action to remove contaminated material

at the location shown depicted on Exhibit(s) "A" attached to this instrument and more specifically identified in whole or in part as Parcel No.(s) 1 * filed in Deed/Plat Book 5051, Page 394 in the records of Butler County, Ohio. *Also identified as Parcels 11281 and portion of 11390 on Exhibit "A".

2. Term/Termination Rights - This License is valid upon execution by the Grantee and will be effective on the date of execution by the Grantor of this instrument and shall continue in effect for a period of/thru two (2) years unless terminated by either of the parties on not less than thirty (30) days prior written notice given to the other; provided, however, that the Grantor may not terminate this License without the Grantee's approval.

3. Consideration - Upon execution of this License by the Grantee, the Grantee shall initiate action to pay ~~to the Grantor~~ the sum of \$ ~~(DELETE)~~ as full and complete payment for the rights granted within this License.

4. Authority to License - ~~The Grantor~~ ~~represents and warrants~~ that it is the owner of the property and has ~~full right, power, and authority to enter into~~ this License and grant the rights set out in this License.

5. Grantor Responsibility - The Grantor responsibility is set out within the terms and conditions of the rights granted under this License. The Grantor makes no representation as to the suitability or fitness of the premises for the intended purpose.

6. Grantee Responsibility - The Grantee, its agents, employees, or representatives will be responsible for property damage or injury to persons caused by the sole and direct negligence of their respective employees in performing on the Grantor's premises the activities and restoration which are the subject of this License. Grantee shall obtain all necessary permits, licenses, and approvals in connection with the activities to be conducted by the Grantee on the premises. During the performance of the activities specified in this License, the Grantee shall not unreasonably interfere with the use and enjoyment of the premises by the Grantor.
7. Access - During the term of this License, the Grantee, its agents, employees, or representatives shall have the right of access to and egress from the premises as needed and shall have the right to bring necessary equipment upon the premises in connection with the performance of the Grantee's activities as set out in Condition 1.
8. Title to Equipment, Fixtures - Title to all equipment, fixtures, appurtenances, and other improvements furnished and installed in connection with the Grantee's activities under this License shall remain with the Grantee.
9. Restoration - Upon termination of this License, the Grantee shall remove all its equipment, fixtures, appurtenances, and other improvements furnished and installed on the premises in connection with the Grantee's activities under this License. The Grantee shall restore the premises, when such restoration is required in connection with the Grantee's activities, to the extent reasonably practical, to the condition existing at the time of initiation of the Grantee's activities. With the consent of the Grantor, the Grantee may abandon Grantee-owned equipment, fixtures, appurtenances, and other improvements in place in lieu of restoration when it is in the best interests of the Grantee.
10. Successors in Interest - This License and the parties' commitments within, shall be binding on both parties, their successors, and assigns.
11. Funding - Obligations of the Grantee under this License shall be subject to the availability of funds appropriated by the Congress which the Grantee may legally spend for such purposes and nothing in this License implies that Congress will appropriate funds to perform this License.

12. Notices - All notices regarding the specific terms and conditions of this License, and within the restrictions of this License, shall be in writing and shall be deemed effectively given upon personal delivery, upon verified facsimile receipt, or upon mailing by registered or certified mail, postage prepaid, and addressed to the parties at the following respective addresses, or to such other persons or at such other addresses as may be designated in writing by either party to the other.

If to the Grantee:

Katy Kates
Realty Officer
Department of Energy
P.O. Box 2001
Oak Ridge, Tennessee 37831

If to the Grantor:

William Burchfield
1627 Bender Avenue
Hamilton, Ohio 45011

13. Entire Agreement - This License represents the entire understanding of the parties on this matter and no oral statements or collateral documents (except as noted within) may modify this License.

14. Amendment - This License may not be amended or superseded except by an agreement in writing executed by the Grantor and Grantee.

That prior to execution of this License certain Conditions were deleted, revised, and/or added (with the additions being as set out below or as designated as Page(s) N/A and being made a part of this License) in the following manner:

Condition No. 3 is deleted in its entirety; Condition No. 4 is deleted and Condition No. 4A is substituted in lieu thereof.

4A. Authority to Grant - The Grantor represents to the extent of its interest in the property that it agrees to the rights set forth in this License.

The above terms and conditions are acknowledged and agreed upon as indicated by the signatures affixed below:

GRANTOR: William Burchfield

GRANTEE: U.S. Department of Energy

By: *William Burchfield*

By: *Kathy Kates*
DOE Real Estate Office

Title: OWNER

Title: Realty Officer

Date: JAN 4 1995

Date: 1-6-95

2.6 POST-REMEDIAL ACTION REPORT

The following report describes the extent of the remedial action and the successful decontamination the HHMS site.

BNI, *Post-Remedial Action Report for the Former Herring-Hall-Marvin Safe Company Site, Hamilton, Ohio*, DOE/OR/21949-391, Oak Ridge, Tenn., February 1996.

Ref. 7

2.7 VERIFICATION STATEMENT, INTERIM VERIFICATION LETTERS TO PROPERTY OWNERS, AND VERIFICATION REPORTS

This section contains the documents related to the successful decontamination of the subject properties.

ORNL, *Results of the Radiological Verification Survey at the Former Herring-Hall-Marvin Safe Company, 1550 Grand Blvd., Hamilton, Ohio (HO0001V)*
ORNL/RASA-95/14, Oak Ridge, Tenn., November 1995.

Ref. 8

2.8 STATE, COUNTY, AND LOCAL COMMENTS ON REMEDIAL ACTION

This section contains correspondence with the state, county, or local governments.

	Page
Letter from J. Boehner (U.S. Congress) to H. O'Leary (U.S. Secretary of Energy), "Informational Meeting for Hamilton and Fairfield," BNI CCN 103751, May 3, 1993.	II-39
Letter from D. G. Adler (DOE) to Dr. William Karwisch (Director of Health, Hamilton, Ohio), "Summary Assessment of the Results from the Survey of the Diebold Facility," August 26, 1993.	II-40
Letter from S. Telford (Ohio Public Health Sanitarian) to D. Adler (DOE), "Diebold Facility," BNI CCN 108153, September 3, 1993.	II-41
Letter from D. G. Adler (DOE) to G. Mitchell (Ohio EPA), "Hamilton Site Designation," BNI CCN 117023, June 2, 1994.	II-42
Letter from D. G. Adler (DOE) to H. Shepherd (Hamilton City Manager), "Hamilton Site Designation," BNI CCN 117023, June 2, 1994.	II-43
Letter from D. G. Adler (DOE) to R. Owen (Ohio Department of Health), "Hamilton Site Designation," BNI CCN 117023, June 2, 1994.	II-44
Letter from D. G. Adler (DOE) to R. Foley (Office of U.S. Sen. John Glenn), "Hamilton Site Designation," BNI CCN 117023, June 2, 1994.	II-45
Letter from D. G. Adler (DOE) to P. Phelan (Office of U.S. Sen. Howard Metzenbaum), "Hamilton Site Designation," BNI CCN 117023, June 2, 1994.	II-46
Letter from D. G. Adler (DOE) to K. Savilla (Office of U.S. Rep. John Boehner), "Hamilton Site Designation," BNI CCN 117023, June 2, 1994.	II-47
Letter from G. Hartman (DOE) to S. Gleiser (Ohio Historical Society), "HHMS Company Site-NHPA (Section 106) Determination," BNI CCN 120673, September 19, 1994.	II-48

Letter from M. Raymond (Ohio Historical Society) to G. Hartman (DOE), "Removal of Radiological Contamination at the HHMS Safe Company Site, Hamilton, Ohio," BNI CCN 121884, October 12, 1994.

II-54

Memorandum from S. Shah (BNI) to G. Palau (BNI), "Meeting with Hamilton City Officials," BNI CCN 121928, October 13, 1994.

II-55

JOHN A. BOEHNER
OHIO

COMMITTEES
AGRICULTURE

EDUCATION AND
LABOR

HOUSE ADMINISTRATION



Congress of the United States
House of Representatives
May 3, 1993

103751

WASHINGTON OFFICE
1020 LONGWORTH HOUSE OFFICE BLDG
WASHINGTON, DC 20515-3508
(202) 225-6205

DISTRICT OFFICES
5617 LIBERTY FAIRFIELD ROAD
HAMILTON, OH 45011
(513) 894-6003

12 SOUTH PLUM STREET
TROY, OH 45373
(513) 339-1524

DISTRICT TOLL FREE NUMBER
1-800-582-1001

The Honorable Hazel R. O'Leary
Secretary of Energy
1000 Pennsylvania Avenue, SW
Washington, D.C. 20585

Dear Secretary O'Leary:

I am requesting the Department of Energy hold an informational meeting to inform citizens of Hamilton and Fairfield, Ohio of your findings at the former Herring-Hall Safe Co., and Force Control Industries.

Such a meeting in Oxford, Ohio, regarding the Alba Craft Laboratory site has done much to inform citizens there of the hazards and helped them to understand the FUSRAP program.

Regarding the Hamilton, Ohio site there appears to be questions, arising from former workers, that much of the machining was done on the third floor and that particular floor was not examined. It might be well to look into this matter if you have not previously done so, before the informational meeting.

Further, please inform me if the Hamilton, Ohio site will be placed on the Ohio FUSRAP list and if you are aware of any other sites in the 8th Congressional District whether or not you are considering them for clean-up. I assume records of contractors and sub-contractors are on file.

I am enclosing a letter I received from Mayor Olivas, Hamilton, Ohio. By phone, Fairfield Mayor, Sterling Uhler, has also expressed his interest in such an informational meeting. A combined site meeting would appear to be adequate.

Thank you for your consideration of this request. I hope to hear from you soon and will be happy to be of help in facilitating this meeting.

Sincerely,


John A. Boehner

JAB:sc

cc: Hamilton Mayor Adolf Olivas
Fairfield Mayor Sterling Uhler
David Adler, DOE, Oakridge, TN.



10/1/93 43-070

Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-8723

August 26, 1993

Dr. William Karwisch
Director of Health
City of Hamilton
Room 351
20 High Street
Hamilton, Ohio 45011

Dear Dr. Karwisch:

SUMMARY ASSESSMENT OF THE RESULTS FROM THE SURVEY ON THE DIEBOLD FACILITY

As requested, I am providing a summary assessment of results from the recent survey of the Diebold Facility in Hamilton, Ohio. This survey was conducted by a team of specialists from the Oak Ridge National Laboratory to determine if any cleanup measures are warranted at the facility.

Results from the survey indicate that isolated portions of the facility are contaminated by trace levels of uranium residues, presumably from uranium machining activities conducted at the site during the 1940's. While some of the area surveyed contains contamination above conservative cleanup guidelines, I want to stress that we have no reason to suspect that any near-term health hazards exist.

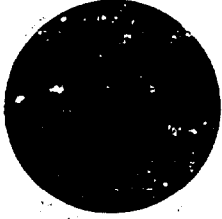
All of the contamination identified was in areas inside the building, which is currently unoccupied. While very sensitive instrumentation can detect the presence of uranium on select floor surfaces within the building, it should be noted that general radiation levels within the building, and actually at locations only one meter above the contaminated surfaces, are at normal background levels for the Cincinnati area. Measurements were also taken to determine if these residues are "transferable" (i.e., capable of being easily tracked out of the building on shoes, etc.). These analyses indicated that the residues are fixed to the contaminated surfaces, and that future transfer of amounts exceeding guidelines is highly improbable.

I hope this information is useful. I will provide a copy of the technical report on the Diebold site survey as soon as it is available. In the interim, please feel free to contact me at (615)-576-9634 with any questions you may have concerning this site.

Sincerely,

A handwritten signature in dark ink, appearing to read "David G. Adler".

David G. Adler, Site Manager
Former Sites Restoration Division



Founded 1791

108153

Department of Public Health

City of Hamilton Ohio
Municipal Building
20 High Street, Hamilton Ohio 45011
Telephone 513 868-5978

NOV 27 11:57 AM '93

September 3, 1993

Department of Energy
David G. Adler, Site Manager
Former Sites Restoration Division
P.O. Box 2001
Oak Ridge, TN 37831-8723

RE: Diebold Facility

Dear Mr. Adler:

Thank you for your follow-up call today. I am very confident that an on-site meeting at Diebold on September 16, 1993, will be a positive influence on our ability to communicate with our residents. I sincerely hope that we can meet and tour this site.

I have taken the liberty to enclose two letters which represent the typical concerns of our citizens. Please feel free to contact these residents directly if you deem that action appropriate.

Thank you for your time and attention.

Sincerely,


SCOTT TELFORD, R.S.
PUBLIC HEALTH SANITARIAN

ST:sw
Enclosures



117023

Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-8723

June 2, 1994

Graham Mitchell
Director, Office of Federal Facilities
Ohio Environmental Protection Agency
401 E. 5th Street
Dayton, Ohio 45402

Dear Mr. Mitchell:

HAMILTON SITE DESIGNATION

As discussed, the U.S. Department of Energy has designated the former Herring-Hall-Marvin Safe Company site at 1550 Grand Boulevard in Hamilton, Ohio, for remedial action under the Formerly Utilized Sites Remedial Action Program.

The site will be remediated as soon as funding is available -- in all likelihood, sometime in FY '95.

If you have any questions about the site, the cleanup plan or schedule, please give me a call at (615) 576-9284. I look forward to working with you as we plan and implement the cleanup of the Herring-Hall-Marvin site.

Sincerely,

A handwritten signature in black ink, appearing to read "David G. Adler".

David G. Adler, Site Manager
Former Sites Restoration Division

Enclosure



117623 94-341

Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-8723

June 2, 1994

Mr. Hal Shepherd
City Manager
20 High Street
Hamilton, Ohio 45011

Dear Mr. Shepherd:

HAMILTON SITE DESIGNATION

As discussed, the U.S. Department of Energy has designated the former Herring-Hall-Marvin Safe Company site at 1550 Grand Boulevard in Hamilton, Ohio, for remedial action under the Formerly Utilized Sites Remedial Action Program.

The site will be remediated as soon as funding is available -- in all likelihood, sometime in FY '95.

If you have any questions about the site, the cleanup plan or schedule, please give me a call at (615) 576-9284. I look forward to working with you as we plan and implement the cleanup of the Herring-Hall-Marvin site.

Sincerely,

A handwritten signature in cursive script, appearing to read "David G. Adler".

David G. Adler, Site Manager
Former Sites Restoration Division

Enclosure



117023 94-34

Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-8723

June 2, 1994

Robert Owen
Director, Bureau of Radiological Health
Ohio Department of Health
P.O. Box 118
Columbus, Ohio 43266-0118

Dear Mr. Owen:

HAMILTON SITE DESIGNATION

As discussed, the U.S. Department of Energy has designated the former Herring-Hall-Marvin Safe Company site at 1550 Grand Boulevard in Hamilton, Ohio, for remedial action under the Formerly Utilized Sites Remedial Action Program.

The site will be remediated as soon as funding is available -- in all likelihood, sometime in FY '95.

If you have any questions about the site, the cleanup plan or schedule, please give me a call at (615) 576-9284. I look forward to working with you as we plan and implement the cleanup of the Herring-Hall-Marvin site.

Sincerely,

David G. Adler, Site Manager
Former Sites Restoration Division

Enclosure



117823

94-341

Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-8723

June 2, 1994

Rosemary Foley
Office of U.S. Sen. John Glenn
10407 Federal Building
550 Main Street
Cincinnati, Ohio 45202

Dear Ms. Foley:

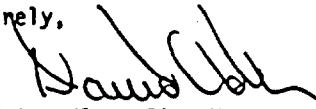
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Sincerely,


David G. Adler, Site Manager
Former Sites Restoration Division

Enclosure



117823

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Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-8723

June 2, 1994

Patricia Phelan
Office of U.S. Sen. Howard Metzenbaum
10411 Federal Building
550 Main Street
Cincinnati, Ohio 45202

Dear Ms. Phelan:

HAMILTON SITE DESIGNATION

As discussed, the U.S. Department of Energy has designated the former Herring-Hall-Marvin Safe Company site at 1550 Grand Boulevard in Hamilton, Ohio, for remedial action under the Formerly Utilized Sites Remedial Action Program.

The site will be remediated as soon as funding is available -- in all likelihood, sometime in FY '95.

If you have any questions about the site, the cleanup plan or schedule, please give me a call at (615) 576-9284. I look forward to working with you as we plan and implement the cleanup of the Herring-Hall-Marvin site.

Sincerely,

A handwritten signature in black ink, appearing to read "David G. Adler".

David G. Adler, Site Manager
Former Sites Restoration Division

Enclosure



117823

94-341

Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-8723

June 2, 1994

Kathy Savilla
Office of U.S. Rep. John Boehner
5617 Liberty Fairfield Rd.
Hamilton, Ohio 45011

Dear Ms. Savilla:

HAMILTON SITE DESIGNATION

As discussed, the U.S. Department of Energy has designated the former Herring-Hall-Marvin Safe Company site at 1550 Grand Boulevard in Hamilton, Ohio, for remedial action under the Formerly Utilized Sites Remedial Action Program.

The site will be remediated as soon as funding is available -- in all likelihood, sometime in FY '95.

If you have any questions about the site, the cleanup plan or schedule, please give me a call at (615) 576-9284. I look forward to working with you as we plan and implement the cleanup of the Herring-Hall-Marvin site.

Sincerely,

David G. Adler, Site Manager
Former Sites Restoration Division

Enclosure



120673

Department of Energy

Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-8723

September 19, 1994

Mr. Saul Gleiser
Ohio Historical Society
Historic Preservation Division
1932 Velma Avenue
Columbus, Ohio 43211

Dear Mr. Gleiser:

HERRING-HALL-MARVIN SAFE COMPANY SITE - NHPA (SECTION 106) DETERMINATION

In accordance with Section 106 of the National Historic Preservation Act (NHPA), the Department of Energy (DOE) has determined that the proposed removal of radiological contamination at the former Herring-Hall-Marvin Safe Company site located at 1550 Grand Boulevard in Hamilton, Ohio, will have no effect on properties included, or eligible for inclusion, on the National Register of Historic Places.

A description of proposed site activities is enclosed, along with site maps and photographs. Your concurrence that this undertaking will have no effect on properties included, or eligible for inclusion, on the National Register of Historic Places is requested by October 7, 1994.

If you have any questions or if you need additional information, please call me at (615) 576-0273.

Sincerely,

A handwritten signature in cursive script that reads "Gary S. Hartman".

Gary S. Hartman, Environmental Scientist
Former Sites Restoration Division

Enclosures
cc w/enclosures:
G. L. Palau, BNI
R. T. Moore, SE-311
D. G. Adler, EW-93
J. G. Hart, EW-93
L. K. Price, EW-93
W. H. Seay, EW-93

PROJECT SUMMARY**REMOVAL OF RADIOLOGICAL CONTAMINATION
HERRING-HALL-MARVIN SAFE COMPANY SITE**

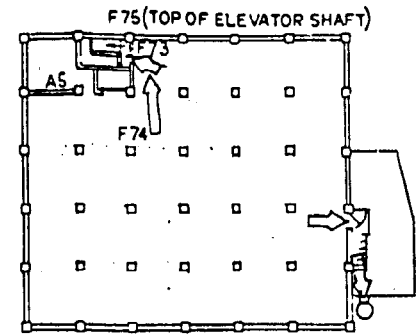
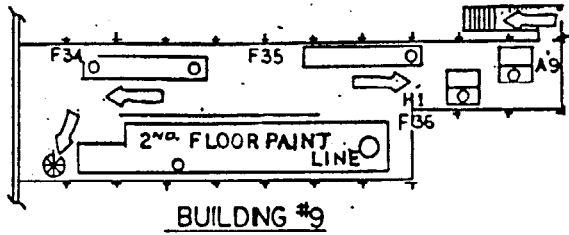
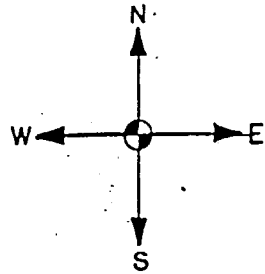
PROPOSED ACTION: The Department of Energy Oak Ridge Operations (DOE/ORO, Formerly Utilized Sites Remedial Action Program (FUSRAP), proposes to remove and radiologically decontaminate the former Herring-Hall-Marvin Safe Company site. Radioactive contamination at the site consists of uranium metal contamination inside the building used for Manhattan Engineer District (MED) subcontract work. Removal of radioactive contamination at the site will result in the excavation of concrete floor areas and associated subsurface soils, decontamination of floor and structural surfaces in the portion of the building used for MED work, decontamination of an elevator (including the shaft) and stairwell, and decontamination of associated piping and drains.

LOCATION: The proposed action would take place at the former Herring-Hall-Marvin Safe Company site located at 1550 Grand Boulevard in Hamilton (Butler County), Ohio.

DISCUSSION: Intermittently from the 1940s to the early 1950s, the Herring-Hall-Marvin Safe Company machined uranium slugs from rolled stock under subcontract to the MED. The current owner of the site is the Diebold Safe Company. The facility is a large industrial building (~300,000 ft²) built in stages as evidenced by the many types of construction materials and architectural styles.

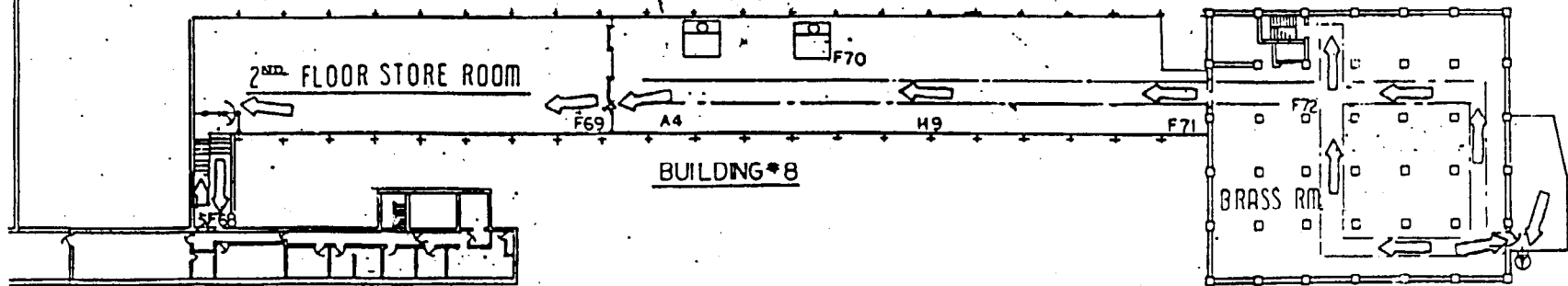
DETERMINATION: DOE has determined that the proposed action would have no effect on any archaeological sites or relics or historic properties included or eligible for inclusion in the National Register of Historic Places. DOE requests your concurrence in this determination.

120673



3RD. FLOOR FACTORY AREA
BUILDING #32

II-48



2ND. FLOOR OFFICE / FACTORY AREA

BUILDING #32

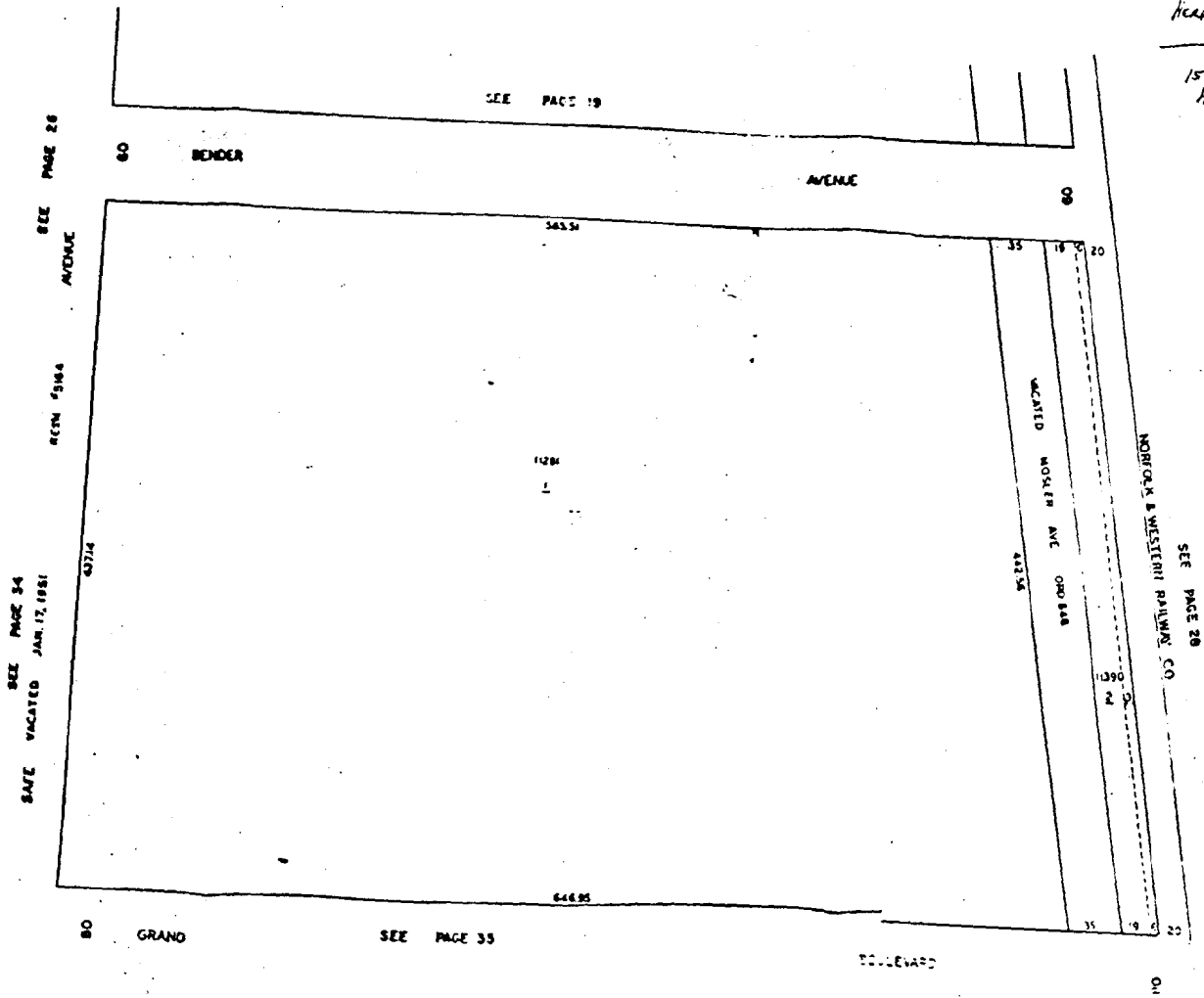
HERRING-HALL-MARVIN
SAGE COMPANY SITE
1550 Grand Boulevard

120673

21

HARRING-HALL-MARVIN
SAFE COMPANY SITE
1550 Grand Boulevard
HAMILTON, OHIO

FIFTH WARD



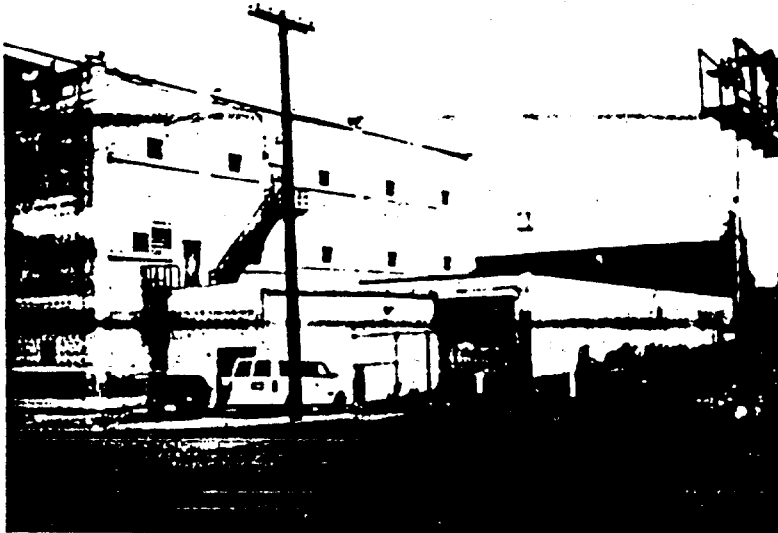
II-49

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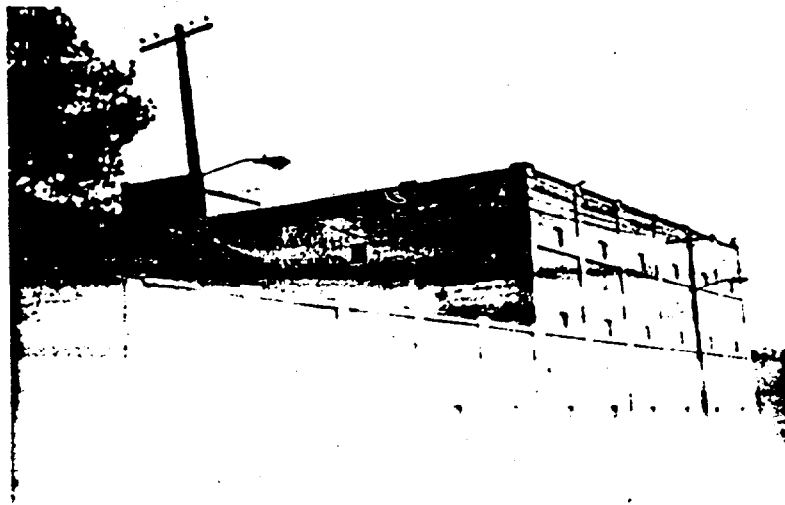


HERRING-HALL-
MARVIN SAFE
COMPANY SITE

EXTERIOR OF
BUILDING



1550 Grand Boulevard
Hamilton, Ohio



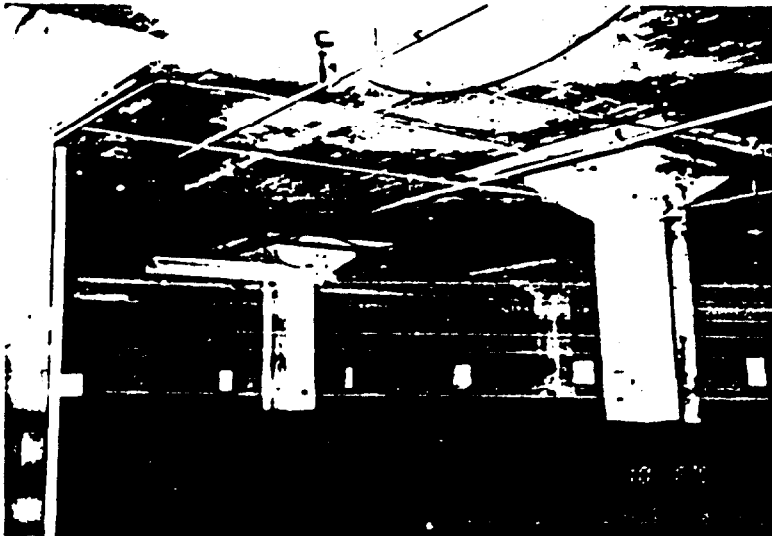
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HERRING-HALL-
MARVIN SAFE
COMPANY SITE

INTERIOR OF
BUILDING



1550 Grand Boulev
Hamilton, Ohio

Best available copy

121884

Ohio Historic Preservation Office

Ohio Historical Center
1982 Velma Avenue
Columbus, Ohio 43211-2497
614/297-2470
Fax: 297-2546

Oct 17 1 33 PM '94



October 12, 1994

OHIO
HISTORICAL
SOCIETY
SINCE 1885

Gary S. Hartman
Environmental Scientist
Former Site Restoration Division
Department of Energy
Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-8723

Dear Mr. Hartman:

Re: Removal of Radiological Contamination at the Herring-Hall-Marvin Safe Company
1550 Grand Boulevard, Hamilton, Ohio

This is in response to your correspondence, received on September 23, 1994 concerning the undertaking noted above. My staff has reviewed the information that you provided. Given the limited information submitted we are unable to assess the eligibility of the structure. However, given the project description, and based on my staff recommendation, it is my opinion that the proposed project if completed as proposed, will have no effect on properties listed in or eligible for the National Register of Historic Places. No further coordination with this office is necessary unless the scope of the project should change.

Any questions concerning this matter should be addressed to Saul Gleiser D., History/Architecture Reviews Manager, at (614) 297-2470. Thank you for your cooperation.

Sincerely,

Martha Raymond, Department Head
Technical and Review Services

MJR/SGD:sg

Bechtel*Interoffice Memorandum*

To	G. Palau and M. Poligone	File No.	14501
Subject	Meeting with Hamilton City, Building & Zoning Administrator to Discuss Possible Remediation Activities to be Performed at 1550 Grand Avenue, Hamilton, OH	Date	10/13/94
		From	Sam Shah
		Of	D & D FUS RAP
Copies to	J. Allison P. Champ G. Drexel M. Hyman J. McCague S. Rao K. Thompson S. Thieme J. West, Hamilton City S. Currier, Hamilton City	At	Oak Ridge Ext. 2696

A meeting was held on October 5, 1994, with Hamilton City Construction Department to discuss the remediation tasks to be performed at subject buildings and any required document by the city. The following people attended the meeting:

Mr. John West	Building & Zoning Administrator
Mr. Seth M. Currier	Supervisor
Mr. Sam Shah	Sr. Engineer (Bechtel)

With a brief historical background explanation about the contamination potential at the site, and proposed remediation activities of Vacuuming, Vacu-blasting, and Blast-trac operation were explained in detail with presentation of blast-trac operational technical data. General work sequences were also discussed.

Based on the data and information presented on remediation and blast-trac operation, Mr. West agreed to waive the need for a structural integrity analysis by an Ohio State Registered Engineer.

Mr. West will require drawings and structural analysis by Ohio State Registered Engineer to any activities that will impact the structural integrity of the building.

In addition, for various permit requirements, the following items were discussed at the meeting:



General:

All required drawings, specification, work scope, etc, must be submitted to Hamilton City Construction Department in Triplicate copies. City engineering staff will require a minimum of three weeks to review the submittals. Any additional changes required by the city staff to meet the codes will be reviewed prior to issue of the permit. Application for all the permits must be submitted to city as one package. Separate submittal for each permit will not be accepted.

Sprinkler system permit:

The proposed modification submittal and work performed on the sprinkler system must be completed by State Ohio Certified Sprinkler System Installer. Separate submittal will be required for temporary and partial termination and for any modification or replacement of any sprinkler system components.

Plumbing permit:

The preparation of submittal for the plumbing work shall be only by the State of Ohio registered and Hamilton city approved plumber.

Electrical permit:

The preparation of submittal for the electrical work shall be only by the State of Ohio registered electrician.

Construction/Building Permit:

As a minimum, drawing delineating all temporary staging, area, office location storage area, fencing, partitions, egress and ingress location, proposed foot equipment traffic, emergency exits, bathroom facilities, etc., will be required along with brief explanation of remediation work.

A request was made that a tentative schedule of remediation work and transportation routing of contaminated waste through the Hamilton City be provided.

Please contact me at (615) 220-2696 for any additional information. Thank you.

Sam Shah

Sam Shah

SS:kt:OH_0116

ACTION REQ'D	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	DUE DATE _____
RESPONSE TO CHRON NO. _____			
<input type="checkbox"/> FFA	<input type="checkbox"/> Permit	<input type="checkbox"/> Milestone	<input type="checkbox"/> Oct <input type="checkbox"/> CCN <input type="checkbox"/> CAR <input type="checkbox"/> Mid-Yr <input type="checkbox"/> Yr-End <input type="checkbox"/> Periodic Rpt



2.9 RESTRICTIONS

There are no radiologically based restrictions on the future use of the subject property.

2.10 FEDERAL REGISTER NOTICE

This section contains a copy of the notice published in the *Federal Register*. It documents the certification that radiological condition of the subject property is in compliance with all applicable decontamination criteria and standards.

Sound Naval Shipyard (PSNS) Bremerton and NAVSTA Everett in the Pacific Northwest are currently designated as CVN home ports. All three locations will be considered as alternative locations for the proposed actions. Although not currently designated as a CVN home port, Pearl Harbor is capable of accommodating deep-draft ships and will also be evaluated as a potential home port.

The 1993 Defense Base Closure and Realignment Commission recommended, and the President and Congress directed the closure of NAS Alameda, CA (scheduled for 1997), and the relocation of two CVNs to fleet concentrations in San Diego, CA, and in the Pacific Northwest. Consequently, the Department of the Navy established homeporting capabilities for one nuclear-powered aircraft carrier at NAS North Island in the San Diego Naval Complex, CA (scheduled for completion in 1998), and one nuclear-powered aircraft carrier at PSNS Bremerton, WA (which has now been implemented). The proposed actions do not involve a reexamination of homeporting actions directed by the 1993 Defense Base Closure and Realignment process.

As the proposed actions could result in the aggregation of CVNs at PSNS Bremerton, consideration will be given to relocation of non-nuclear powered deep-draft Navy support ships currently homeported at PSNS Bremerton.

The EIS will analyze the potential environmental effects of the proposed actions at the alternative locations discussed above, including any associated facilities development and dredging, and other reasonable alternatives identified during the public scoping process. Environmental issues to be addressed in the EIS include: geology, topography, and soils; dredging, hydrology, and water quality; pollution prevention; biology and natural resources; noise; air quality; land use; historic and archeological resources; socioeconomic schools, and housing, transportation/circulation/parking; public facilities and recreation; safety and environmental health; aesthetics; utilities; and environmental justice. Issue analysis will include an evaluation of the direct, indirect, short-term, and cumulative impacts associated with the proposed actions. No decision to implement the proposed actions will be made until the NEPA process is complete.

ADDRESSES: The Department of the Navy will initiate a scoping process for the purpose of determining the scope of issues to be addressed and for identifying significant issues relative to

these proposed actions. Public meetings to receive oral comments from the public will be held in the four primary areas of consideration (San Diego, CA; Bremerton, WA; Everett, WA; and Honolulu, HI) in January and February 1997. These meetings will be announced in the **Federal Register** and in local area newspapers. Navy representatives will be available at the scoping meetings to receive comments from the public regarding issues of concern. A brief presentation describing the proposed actions and the NEPA process will precede a request for public comments. It is important that federal, state, and local agencies, as well as interested organizations and individuals, take this opportunity to identify environmental concerns that they feel should be addressed during the preparation of the EIS. Agencies and the public are invited and encouraged to provide written comments in addition to, or in lieu of, oral comments at the public meetings. To be most helpful, scoping comments should clearly describe specific issues or topics that the commenter believes the EIS should address. Written comments or questions regarding the scoping process and/or the EIS should be postmarked no later than 28 February 1997 and sent to the following address.

FOR FURTHER INFORMATION CONTACT: Mr. Daniel Muslin (Code 03PL), Southwest Division, Naval Facilities Engineering Command, 1220 Pacific Highway, San Diego, CA 92132-5190; telephone (619) 532-3403.

Dated: November 27, 1996.

D.E. Koenig,
LCDR, JAGC, USN, Federal Register Liaison Officer.
[FR Doc. 96-30721 Filed 12-2-96; 8:45 am]
BILLING CODE 3810-FF-M

DEPARTMENT OF ENERGY

Certification of the Radiological Condition of the Herring-Hall-Marvin Safe Company Site in Hamilton, Ohio, 1995

AGENCY: Office of Environmental Management, Department of Energy (DOE).

ACTION: Notice of Certification.

SUMMARY: DOE has completed remedial actions to decontaminate the Herring-Hall-Marvin Safe Company site in Hamilton, Ohio. Formerly, the property was found to contain quantities of residual radioactive material resulting from activities conducted by contractors for DOE's predecessors, the Manhattan

Engineer District (MED) and the Atomic Energy Commission (AEC). Radiological surveys show that the property now meets applicable requirements for use without radiological restrictions, and the docket related to cleanup activities is now available.

ADDRESSES: The docket is available from:

Public Reading Room, Room 1E-190, Forrestal Building, U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, D.C. 20585

Public Document Room, Oak Ridge Operations Office, U.S. Department of Energy, 200 Administration Road, Oak Ridge, Tennessee 37831

Lane Public Library, 300 N. Third Street, Hamilton, Ohio 45011

FOR FURTHER INFORMATION CONTACT: William E. Murphie, Acting Director, Office of Eastern Area Programs, Office of Environmental Restoration (EM-42), U.S. Department of Energy, Germantown, Maryland 20874, (301) 903-2328 Fax: (301) 903-2385.

SUPPLEMENTARY INFORMATION: The Department of Energy (DOE), Office of Eastern Area Programs, the Formerly Utilized Sites Remedial Action Program (FUSRAP) Team, has conducted remedial at the Herring-Hall-Marvin Safe Company site in Hamilton, Ohio, as part of FUSRAP. The objective of the program is to identify and remediate or otherwise control sites where residual radioactive contamination remains from activities carried out under contract to the Manhattan Engineer District/Atomic Energy Commission (MED/AEC) during the early years of the nation's atomic energy program or from commercial operations causing conditions that Congress has authorized DOE to remedy. In June 1994, the site was designated for cleanup under FUSRAP.

The Herring-Hall-Marvin Safe Company, intermittently from the 1940s to the early 1950s, machined natural (not depleted or enriched) uranium metal slugs from rolled stock under subcontract to prime MED contractors Dupont and the University of Chicago. Records indicate that two work orders were performed at the site in 1943 in support of the MED and one in 1951 for the AEC. The uranium machining was relatively small scale and appears to have been conducted during brief periods. The available records indicate that MED/AEC work performed at the site was discontinued by August 1951.

The structure is a large, roughly rectangular building (approximately 300,000 ft²), constructed mostly of concrete. The interior is primarily an open design with few walls and a

support structure of columns and beams with cross braces. High bays are offset by rows of windows at the ceiling. Early site documents used for the original radiological survey noted that uranium was machined on lathes in the large machine room on the first floor of this section of the building. A portion of the first floor is currently occupied by Union Paper Company. The remainder of the building is unoccupied and is used for storage.

On August 29 and 30, 1988, and April 24, 1989, radiological surveys were conducted at the request of DOE and with the consent of the property owner. The results of the radiological surveys revealed no radionuclide concentrations in excess of the applicable DOE criteria for air and soil on the first floor, and no beta or gamma radiation above background could be detected. Consequently, the site was eliminated from consideration under FUSRAP.

Later interviews with individuals formerly associated with the site revealed that uranium machining operations for MED also occurred in the southeastern corner of the building in a section with three floors, accessed by a stairwell and an elevator. Uranium was machined on the third floor in a room with concrete columns. Radiological surveys performed in 1988 and 1989 did not include that area of the building because it has not been previously identified as an area where uranium operations had taken place. A third radiological survey, conducted by Oak Ridge National Laboratory in 1993, identified uranium in portions of the floor and walls of the 9,000-square-foot third floor area. Also, it was determined from historical records that MED and/or its agents exercised significant control over the fabrication process and that MED had an on-site representative during some operations. In June 1993, the property was designated for remedial action by FUSRAP. Remedial action was conducted at the site from December 1994 to March 1995.

Post-remedial action surveys have demonstrated and DOE has certified that the subject property is in compliance with DOE radiological decontamination criteria and standards. The standards are established to protect members of the general public and occupants of the properties and to ensure that future use of the properties will result in no radiological exposure above applicable health-based guidelines. Accordingly, this property is released from FUSRAP.

The certification docket will be available for review between 9:00 a.m. and 4:00 p.m., Monday through Friday (except Federal holidays) in the DOE Public Reading Room located in Room

1E-190 of the Forrestal Building, 1000 Independence Avenue, S.W., Washington, D.C. 20585. Copies of the certification docket will also be available in the DOE Public Document Room, U.S. Department of Energy, Oak Ridge Operations Office, Oak Ridge, Tennessee, 37831, and in the Lane Public Library, 300 N. Third Street, Hamilton, Ohio, 45011.

DOE, through the Oak Ridge Operations Office, Former Sites Restoration Division, has issued the following statement:

Statement of Certification: Herring-Hall-Marvin Safe Company Site in Hamilton, Ohio

DOE, Oak Ridge Operations Office, Former Sites Restoration Division, has reviewed and analyzed the radiological data obtained following remedial action at the Herring-Hall-Marvin Safe Company Site in Hamilton, Ohio. Based on analysis of all data collected, including post-remedial action surveys, DOE certifies that any residual contamination on the site falls within current guidelines for use without radiological restrictions. This certification of compliance provides assurance that reasonably foreseeable future use of the site will result in no radiological exposure above current radiological guidelines established to protect members of the general public as well as occupants of the site.

Property owned by William Burchfield, 1550 Grand Boulevard, Hamilton, Ohio 45011.

Issued in Washington, D.C., on November 25, 1996.

James M. Owendoff,
Deputy Assistant Secretary for Environmental Restoration.

[FR Doc. 96-30707 Filed 12-2-96; 8:45 am]

BILLING CODE 6450-01-P

Federal Energy Regulatory Commission

[Docket No. RP97-04-000]

ANR Pipeline Co.; Notice of Proposed Changes in FERC Gas Tariff

November 26, 1996.

Take notice that on November 22, 1996, ANR Pipeline Company (ANR) tendered for filing as part of its FERC Gas Tariff, Second Revised Volume No. 1 and Original Volume No. 2, the following tariff sheets, proposed to become effective December 1, 1996:

Second Revised Volume No. 1
Original Sheet No. 2A through 2J
First Revised Sheet No. 4
Original Sheet Nos. 4A through 4J

Fourth Revised Sheet Nos. 5 through 7
Sixteenth Revised Sheet No. 8
Eighteenth Revised Sheet No. 9
Fourth Revised Sheet Nos. 10 through 12
Fourth Revised Sheet Nos. 14 and 15
Eighteenth Revised Sheet No. 16
Sixth Revised Sheet No. 17A
Twenty-first Revised Sheet No. 18
Third Revised Sheet No. 23
Second Revised Sheet No. 33A
Third Revised Sheet No. 40
Second Revised Sheet No. 89
Second Revised Sheet No. 145
Second Revised Sheet No. 175
Third Revised Sheet No. 180
Fourth Revised Sheet No. 181
Second Revised Sheet No. 186
Third Revised Sheet No. 192

Original Volume No. 2

Title Page

ANR states that this filing is being made to implement the remaining changes to its tariffs to conform with the revisions made to Part 154 of the Commission's regulations pursuant to Order No. 582 and 582-A ("Orders"). The Orders directed pipelines to complete the revisions to their tariffs to reflect the changes by no later than December 31, 1996.

Any person desiring to be heard or to protest this filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Sections 385.214 and 385.211 of the Commission's Rules and Regulations. All such motions or protest must be filed in accordance with Section 154.210 of the Commission's Regulations. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection in the Public Inspection Room.

Linwood A. Watson, Jr.,

Acting Secretary.

[FR Doc. 96-30678 Filed 12-2-96; 8:45 am]

BILLING CODE 6717-01-M

[Docket No. OA97-12-000]

Central Vermont Public Service Corporation; Notice of Filing

November 26, 1996.

Take notice that on October 16, 1996, Central Vermont Public Service Corporation tendered for filing an amendment to its October 11, 1996 filing in the above-reference docket.

Any person desiring to be heard or to protest said filing should file a motion

2.11 APPROVED CERTIFICATION STATEMENT

The following memorandum and statement document the certification of the subject property for future use.

**STATEMENT OF CERTIFICATION: HERRING-HALL-MARVIN SAFE
COMPANY SITE IN HAMILTON, OHIO**

The U.S. Department of Energy (DOE), Oak Ridge Operations Office, Former Sites Restoration Division, has reviewed and analyzed the radiological data obtained following remedial action at the Herring-Hall-Marvin Safe Company Site in Hamilton, Ohio. Based on analysis of all data collected, DOE certifies that the following property is in compliance with current DOE radiological decontamination criteria and standards. This certification of compliance provides assurance that reasonably foreseeable future use of the property will result in no radiological exposure above current applicable guidelines established to protect members of the general public or site occupants.

Property owned by: William Burchfield
1550 Grand Boulevard
Hamilton, Ohio

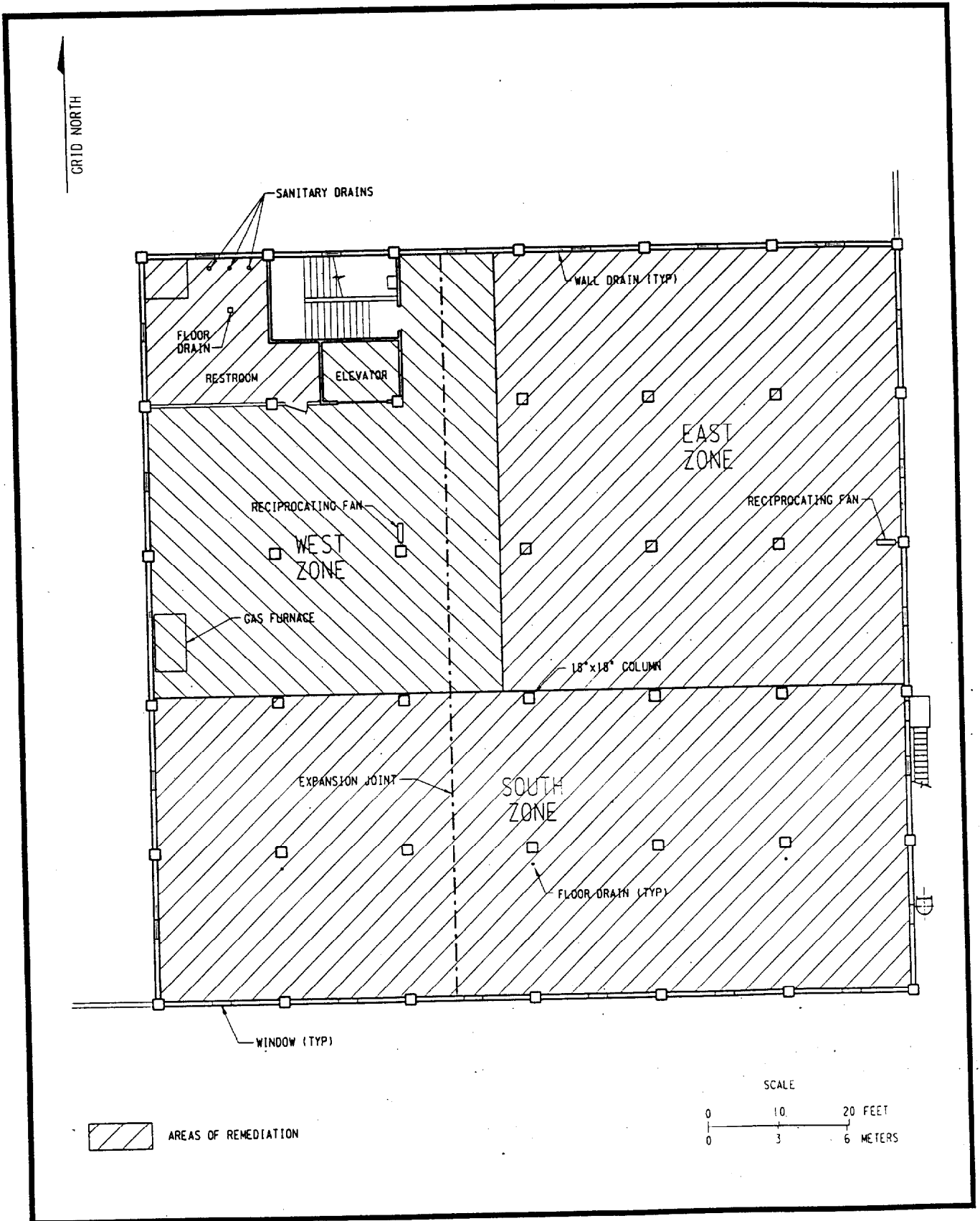


Date: 3/11/96

L. K. Price, Director
Former Sites Restoration Division
Oak Ridge Operations Office
U.S. Department of Energy

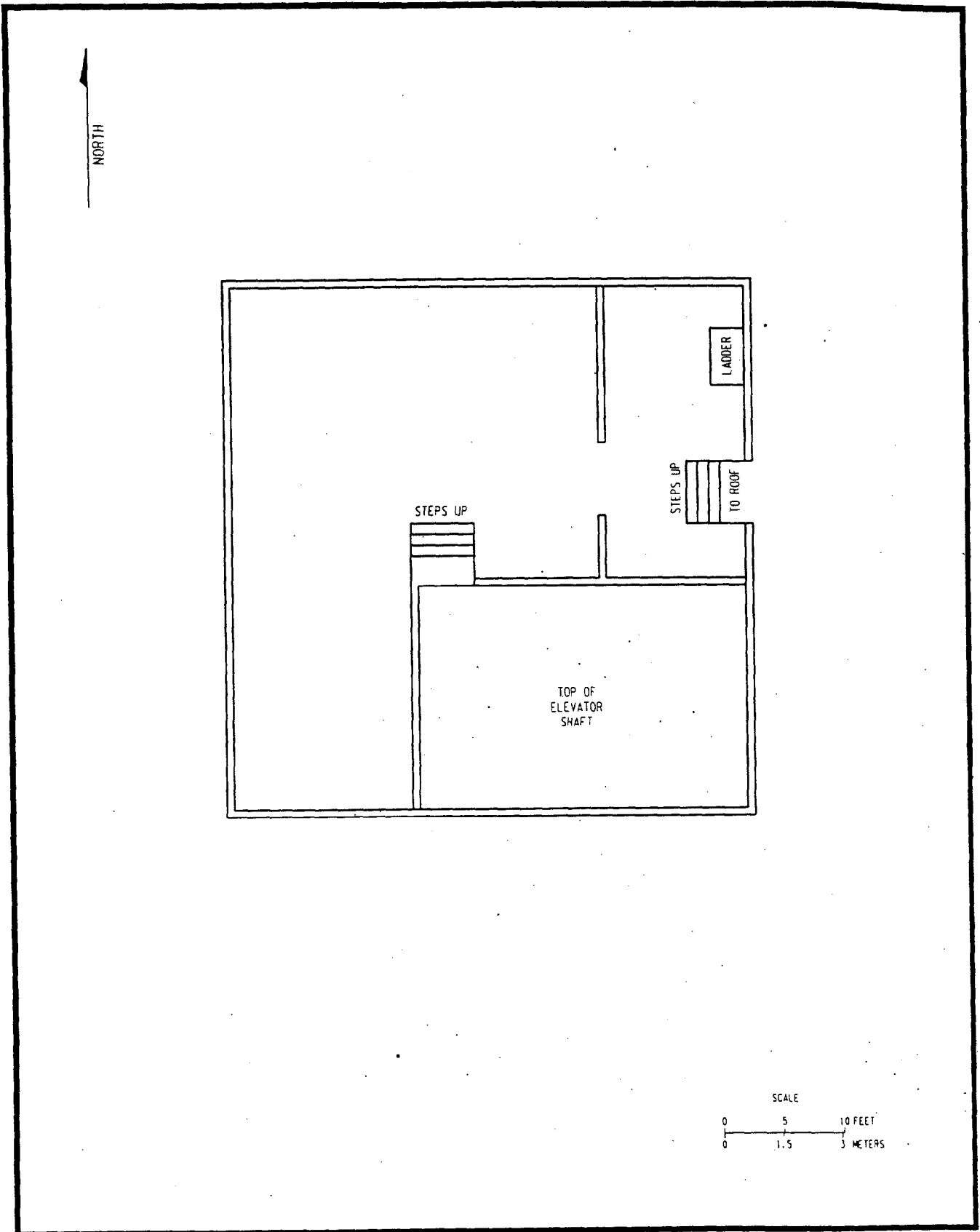
EXHIBIT III
DIAGRAMS OF THE REMEDIAL ACTION PERFORMED AT THE
HERRING-HALL-MARVIN SAFE COMPANY SITE

The figures provided on the following pages are taken from the post-remedial action report; they illustrate the extent of remedial action performed at the HHMS site.



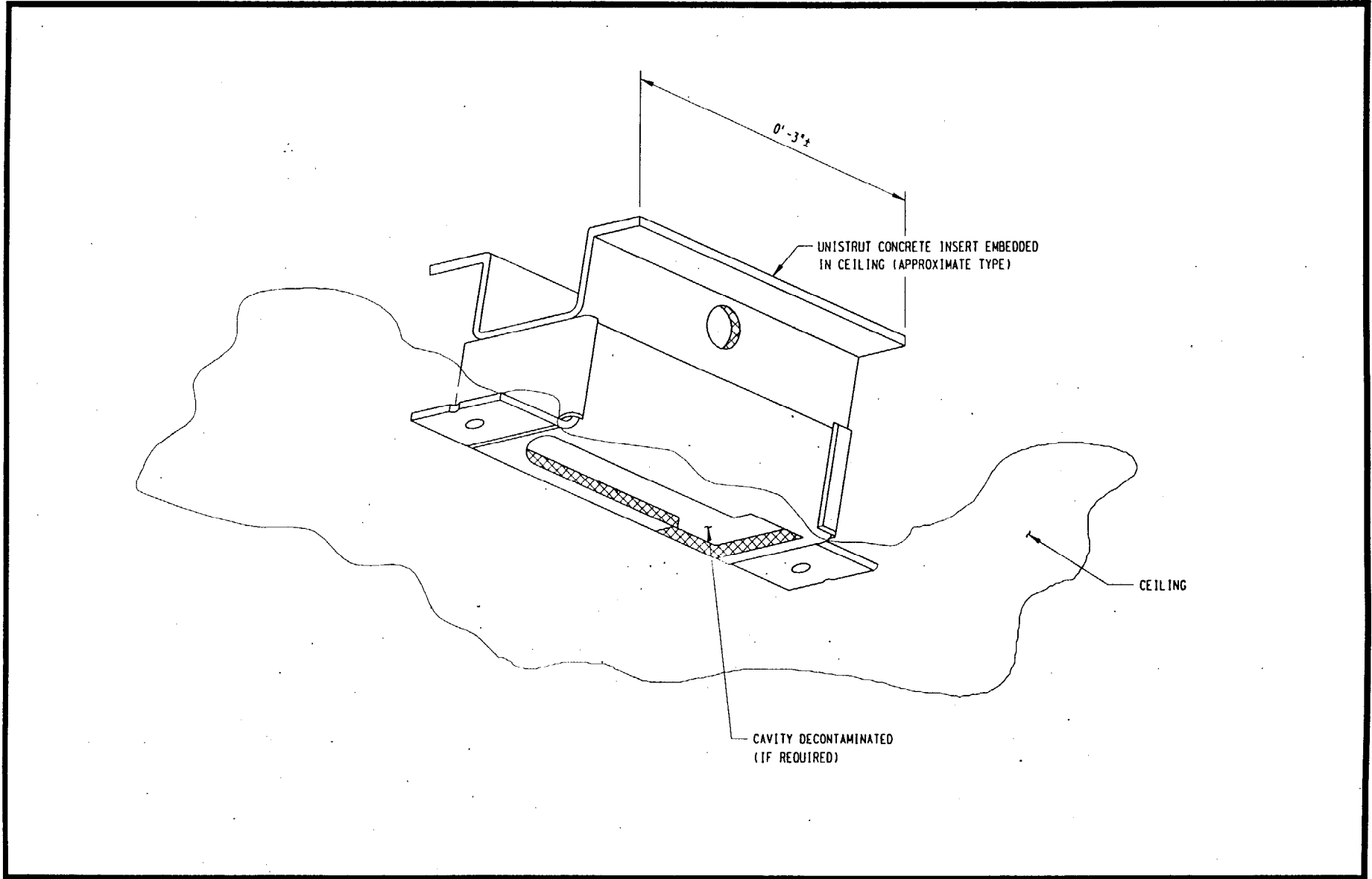
135 R75F005.DGN

Figure III-1
 Herring-Hall-Marvin Safe Facility
 Areas of Remediation - 3rd Floor



135 R75F006.DGN

Figure III-2
Elevator Operations Room



135 R75F001.DGN

Figure III-3
Typical Ceiling Unistrut