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Certification Docket for the Remedial Action Performed at the Seymour Specialty Wire Site in Seymour, Connecticut, 1992-1993

Department of Energy
Former Sites Restoration Division
Oak Ridge Operations Office

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CERTIFICATION DOCKET FOR THE REMEDIAL ACTION PERFORMED AT THE SEYMOUR SPECIALTY WIRE SITE IN SEYMOUR, CONNECTICUT, 1992-1993

DECEMBER 1995

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By

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ACRONYMS

ACM	asbestos-containing material
AEC	Atomic Energy Commission
ALARA	as low as reasonably achievable
ANL	Argonne National Laboratory
BNI	Bechtel National, Inc.
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DCG	derived concentration guide
DOE	U.S. Department of Energy
ERDA	Energy Research and Development Administration
EPA	U.S. Environmental Protection Agency
FSRD	Former Sites Restoration Division
FUSRAP	Formerly Utilized Sites Remedial Action Program
HEPA	high-efficiency particulate air
IVC	independent verification contractor
LLRW	low-level radioactive waste
LSA	low specific activity
NEPA	National Environmental Policy Act
ORAU	Oak Ridge Associated Universities (now Oak Ridge Institute for Science and Education)
ORNL	Oak Ridge National Laboratory
PCB	polychlorinated biphenyl
PMC	project management contractor
PPE	personal protective equipment

UNITS OF MEASURE

cm	centimeter
cpm	counts per minute
dpm	disintegrations per minute
ft	foot
g	gram
h	hour
ha	hectare
in.	inch
km	kilometer
m	meter
mi	mile
μCi	microcurie
ml	milliliter
mrad	millirad
mrem	millirem
pCi	picocurie
ppm	parts per million
yd	yard
yr	year
WL	working level

INTRODUCTION

The U.S. Department of Energy (DOE), Office of Environmental Management, Division of Off-Site Programs (and/or the predecessor agencies, offices, and divisions) conducted a remedial action/cleanup project at the Seymour Specialty Wire site in Seymour, Connecticut from August 1992 to March 1993. The work was administered by the Formerly Utilized Sites Remedial Action Program (FUSRAP) under the direction of the Division of Off-Site Programs.

The United States Congress authorized the establishment of FUSRAP in 1974 to identify and clean up or otherwise control sites where chemical contamination and/or residual radioactive material (exceeding current guidelines) remains from the early years of the nation's atomic energy program or from commercial operations causing conditions that Congress has authorized DOE to remedy. The objectives of FUSRAP 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;
- dispose of and/or stabilize 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 the remedial action, that the radiological conditions of the sites comply with guidelines.

FUSRAP is managed by the DOE Oak Ridge Operations Office, Former Sites Restoration Division (DOE-FSRD). Bechtel National, Inc. (BNI) is the project management contractor (PMC) for FUSRAP.

Environmental Regulations Affecting FUSRAP

To assess the environmental impacts of federal actions, Executive Order 11991 empowered the Council on Environmental Quality (CEQ) to issue regulations to federal agencies for implementing the procedural provisions of the National Environmental Policy Act (NEPA) that are

mandatory under law. In June 1979, CEQ issued regulations containing guidance and specific requirements. DOE guidelines for implementing the NEPA process and satisfying the CEQ regulations were subsequently issued and became effective on March 28, 1980.

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. Under the DOE NEPA guidelines and the *Federal Register* (Vol. 55, No. 174, September 7, 1990, pg. 37174), cleanup activity at the Seymour site was categorically excluded from NEPA review and documentation.

The cleanup of contaminated subsurface flooring and soil at Seymour Specialty Wire was conducted under authority of the DOE Atomic Energy Act and was performed pursuant to "Expedited Procedures for Remedial Action at Small FUSRAP Sites." The expedited procedure is an efficient, cost-effective approach that streamlines the remedial action process for the cleanup of small sites. It complies with all the requirements of NEPA and CERCLA.

Work performed under FUSRAP by the PMC 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 and by DOE-FSRD.

Property Identification

The site is owned by the Seymour Specialty Wire Company. The area where contamination was detected, the Rufert Building and two adjacent outside areas, is leased and operated by the Electric Cable Company as an industrial manufacturing plant. The site is located at 15 Franklin Street in Seymour, Connecticut.

Portions of one building and two exterior areas were designated for remedial action under FUSRAP. An expedited removal action was conducted at the site from August 1992 to March 1993. Post-remedial action surveys have demonstrated and DOE has certified that the locations remediated were in compliance with applicable DOE standards and criteria established to protect human health and safety and the environment. Following the remedial action, a notice of certification of the radiological condition of the site was published in the *Federal Register* on January 24, 1995.

Docket Contents

The purpose of this docket is to document the successful decontamination of radioactively contaminated areas remediated at the Seymour Specialty Wire Site from August 1992 to March 1993. The material in this docket consists of documents supporting DOE certification that

conditions at the subject property are in compliance with radiological guidelines and standards determined to be applicable for the property. This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable guidelines established to protect members of the general public or site occupants.

Exhibit I of this docket is a summary of remedial action activities conducted at the Seymour site. The exhibit provides a brief history of the origin of the contamination at the site, the radiological characterizations conducted, the remedial action performed, and post-remedial action/verification activities. Cost data covering all remedial action conducted at the site are also included in Exhibit I. Appendix A of Exhibit I contains 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 attachments to the certification docket at publication.

Exhibit III provides diagrams of the site identifying the areas of contamination that were remediated during the cleanup activities.

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 review 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 will also be available in the Public Document Room, U.S. Department of Energy, Oak Ridge Operations Office, Oak Ridge, Tennessee.

EXHIBIT I
SUMMARY OF REMEDIAL ACTION ACTIVITIES AT THE SEYMOUR SPECIALTY WIRE SITE IN SEYMOUR, CONNECTICUT, 1992-1993

1.0 INTRODUCTION

Exhibit I summarizes the activities culminating in the certification that radiological conditions at the Seymour Specialty Wire site are in compliance with applicable guidelines and that future use of the site will result in no radiological exposure above DOE 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 remedial action process at Seymour: 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 radioactivity has been removed. Further details on each activity, beyond those included in Exhibit I, can be found in the referenced documents.

The Seymour site is located approximately 81 km (50 mi) southwest of Hartford, Connecticut, off Route 8 in the town of Seymour. The site is situated on the western bank of the Naugatuck River and is within the floodplain of the river (Figure I-1). The site covers approximately 3.2 ha (8.0 acres) and contains 20 buildings (Figure I-2). The Rufert Building, which was used for AEC operations, is located at the northern end of the property. Access to the building is from the south, through the plant complex. Figure I-3 shows the interior layout of the building.

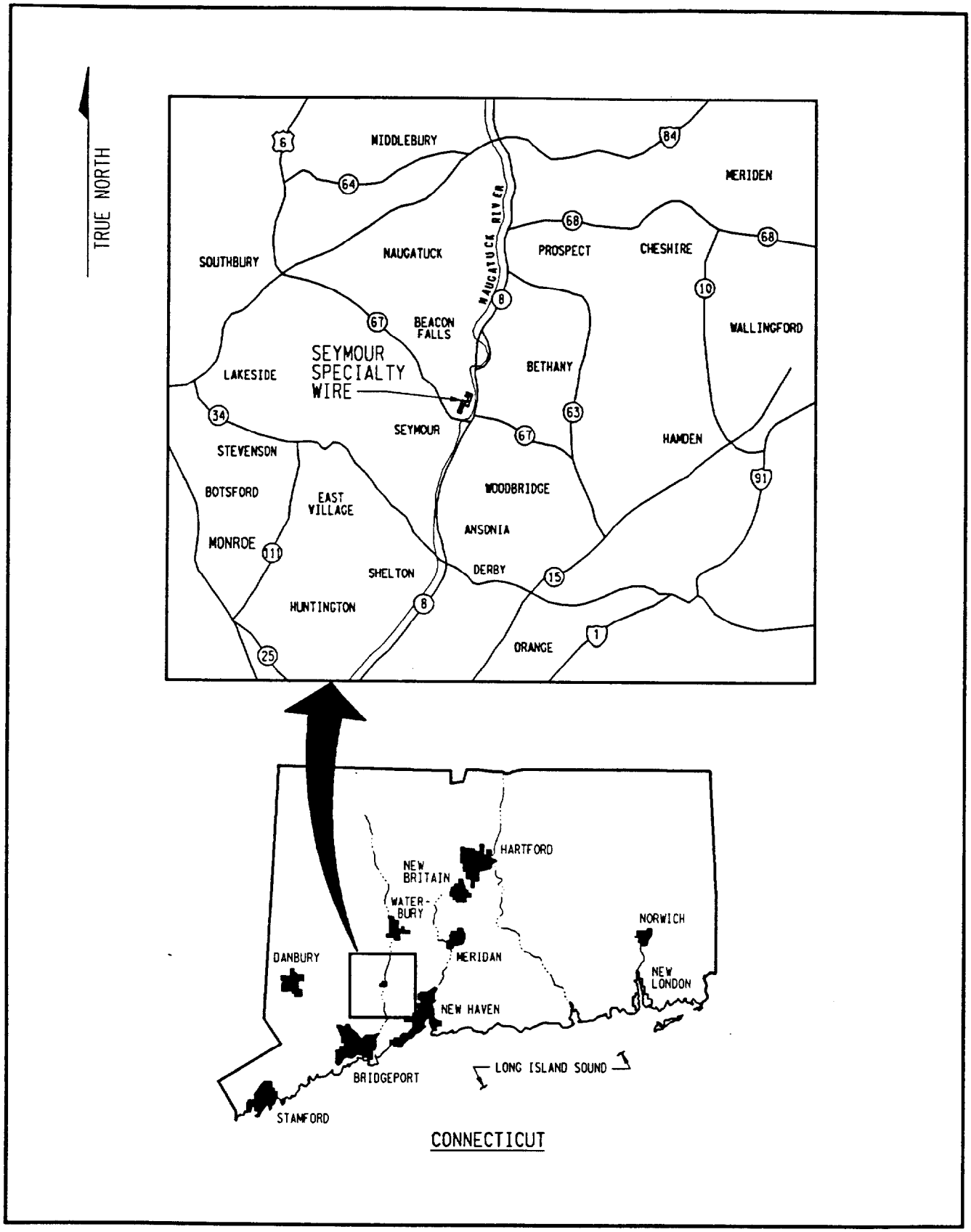

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Figure I-1
Location of the Seymour Site and Its Vicinity

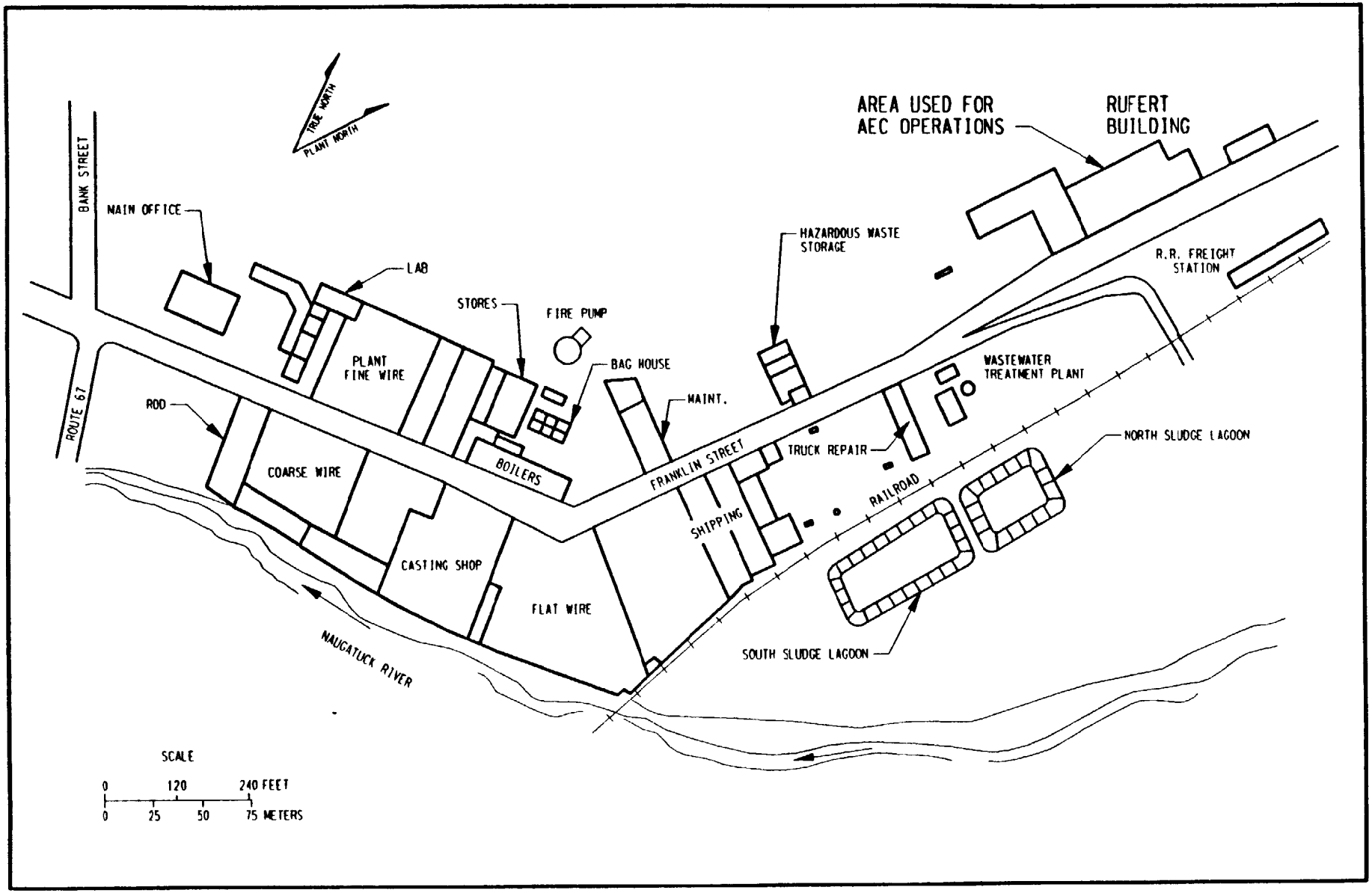

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Figure I-2
Site Plan of the Seymour Specialty Wire Complex

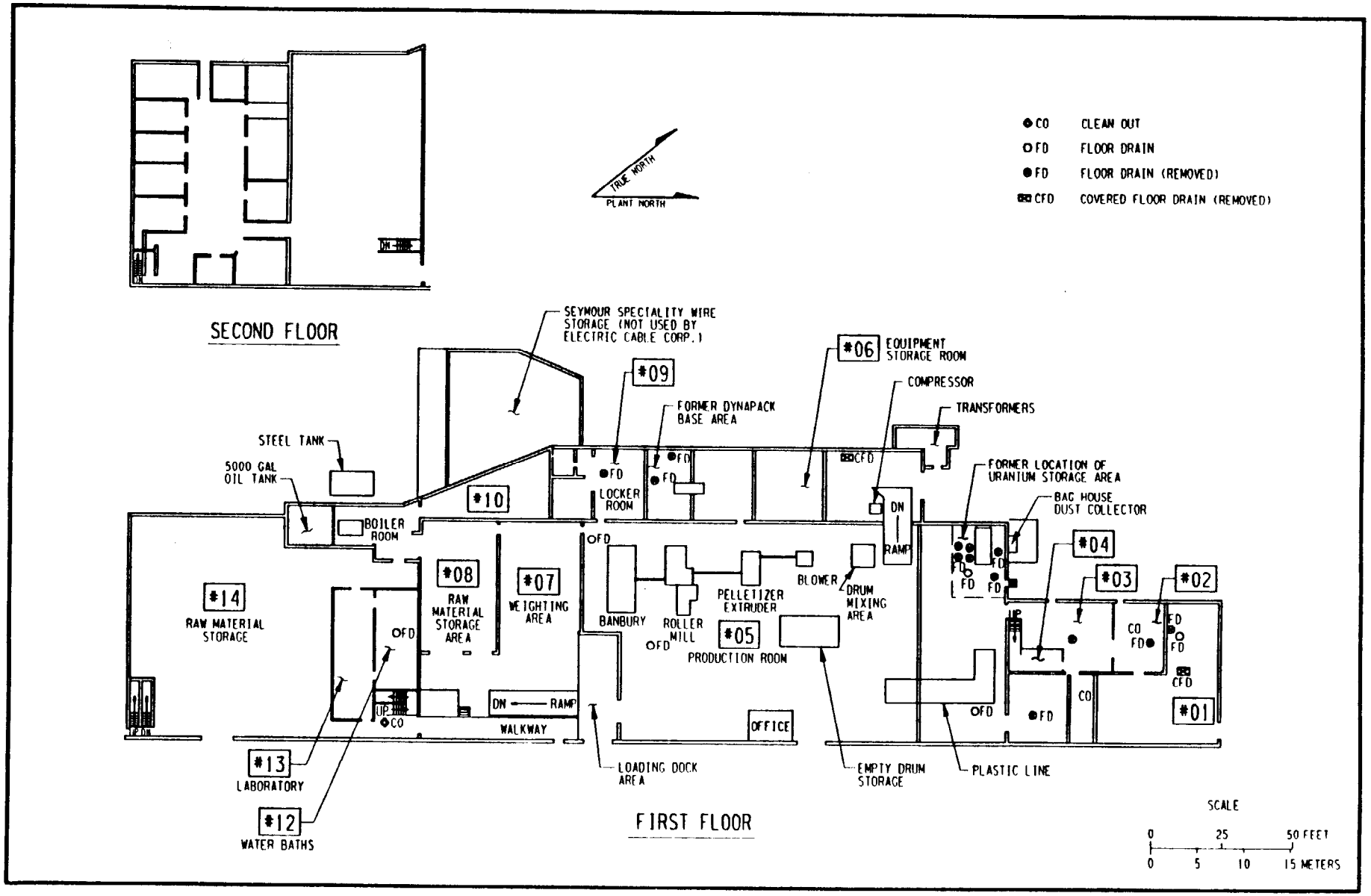

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Figure I-3
Rufert Building

2.0 SITE HISTORY

The Seymour site was formerly occupied by Reactive Metals, Inc., a subsidiary of Bridgeport Brass Company, later known as the Seymour Specialty Wire Company. From 1962 to 1964, Reactive Metals, Inc., was under contract with AEC to perform research and development of a process for the cold-forming, or extrusion, of natural uranium metal. During this time, other activities associated with the extrusion process, such as analytical support and storage of radioactive material, took place at the site. These activities ceased in 1964 when operations were transferred to the Reactive Metals, Inc., facility in Ashtabula, Ohio. All the AEC work at the Seymour site was conducted in the Rufert Building. Characterization surveys of the building confirmed that uranium and its decay products were the primary contaminants. This building is currently leased and operated by Electric Cable Company as an industrial manufacturing plant.

3.0 SITE DESCRIPTION

The Seymour site is southwest of Hartford, Connecticut, off Route 8 in the Town of Seymour (Town of Seymour, Volume 135, pages 430-437). The site is bordered by the Naugatuck River on the east, by a sheer rock ledge on the west and north, and by Route 67 on the south. A shopping center and a church are located on the rock ledge west of the site. Farther west and north are residential areas. A railroad track parallel to the Naugatuck River approaches the site from the north. A hardware store is located to the south across Route 67; the area beyond is residential. To the east, across the river, are a business/commercial district and the downtown portion of the Town of Seymour.

The Seymour site covers approximately 3.2 ha (8.0 acres) and contains 20 buildings. The site is split by Franklin Street, which runs north/south through the site. The Rufert Building, which was used for AEC operations, is located at the northern end of the property.

4.0 RADIOLOGICAL HISTORY AND STATUS

At the request of DOE, the Oak Ridge National Laboratory (ORNL) Health and Safety Research Division conducted preliminary and follow-up surveys of the Seymour site. As a result of these surveys, the site was designated in December 1985 for remediation under FUSRAP.

4.1 RADIOLOGICAL SURVEYS

In 1964, after all AEC-related work was terminated at the Seymour site, a radiological survey was conducted of the 4.8-ha (11.9-acre) parcel of the site that includes the Rufert Building. Although there were no AEC standards for surface contamination with which to compare the survey data at that time, the survey report states that the radionuclide concentrations observed were ". . . quite low and certainly are insignificant with respect to any mode of exposure that can be hypothesized" (Ref. 2).

After FUSRAP was established, a review of former AEC records indicated that the Seymour site should be resurveyed because there were no satisfactory protective release criteria at the time of the first survey. ORNL conducted a preliminary radiological survey of the facility on January 26, 1977 (Ref. 3). This survey consisted of gamma exposure rate measurements taken 1 m (3.3 ft) from the floor surface, beta-gamma exposure rate measurements taken 1 cm (0.4 in.) above the floor surface, and direct alpha radiation measurements taken on contact with the floor. Because of gamma radiation measurements observed during this preliminary survey, ORNL conducted a follow-up survey at the site on August 26, 1980 (Ref. 4) to determine whether residues at the site exceeded current DOE guidelines for residual contamination on structural surfaces. In addition to the same type of measurements taken during the 1977 survey, smear samples were taken to determine the extent of transferable contamination. Both the 1977 and 1980 surveys indicated that radioactive contamination was present in the Rufert Building in excess of current DOE guidelines for residual contamination on structural surfaces.

In May and June 1992, ORNL conducted more extensive characterization surveys to more precisely define the locations and delineate the boundaries of the radioactive contamination identified during the initial designation surveys (Ref. 5). These surveys indicated that a much greater portion of the building was contaminated than originally thought. In addition, two isolated exterior areas were determined to be contaminated with radioactive material. The survey also confirmed that the primary contaminant at the Seymour site was uranium-238 and its decay products.

Contamination was detected above guidelines in six rooms of the Rufert Building (Exhibit III, Figure III-1). Figure III-2 (Exhibit III) shows the locations of the two exterior areas where contamination was found. Area 1 was approximately 13.4 m^2 (144 ft^2) and was located 30.5 m

(100 ft) north of the Rufert Building. Area 2 was approximately 2.2 m^2 (24 ft^2) and located outside the loading dock area at the northern end of the building.

4.2 REMEDIAL ACTION GUIDELINES

Consistent with previous surveys, the 1992 characterization results indicated that several areas of the Rufert Building exceeded the DOE guidelines for total residual radioactivity on structural surfaces, and uranium-238 was identified as the primary contaminant. The DOE residual contamination guidelines are summarized in Table I-1. In accordance with DOE Order 5400.5 (Ref. 6), the relevant remedial action guidelines for alpha activity resulting from residual uranium on structural surfaces at the Seymour site are 5,000 dpm/100 cm^2 average and 15,000 dpm/100 cm^2 maximum for fixed (nontransferable) alpha activity, and 1,000 dpm/100 cm^2 for transferable alpha activity. DOE policy further requires that all radiation exposures be maintained as low as reasonably achievable (ALARA); the ALARA goal for remediation of the building was set at 3,000 dpm/100 cm^2 average, below the 5,000 dpm/100 cm^2 limit.

Guidelines for the remediation of uranium-238 in soil are typically developed on a site-specific basis and are based on the reasonable exposure pathways that can be hypothesized for the site. A site-specific uranium-238 guideline was not developed for the Seymour site because exterior soil contamination was not expected. For FUSRAP sites, the uranium-238 guideline ranges between 50 and 200 pCi/g. At the start of remedial activities at the Seymour site, uranium soil concentration guidelines had not been established because all the contamination was thought to be inside the Rufert Building. However, during characterization activities completed during remediation, two small exterior areas were found to be contaminated and were remediated. Analysis of the soil samples collected at the exterior areas indicated a uranium concentration of 7 pCi/g after remediation.

4.3 POST-REMEDIAL ACTION STATUS

As shown in the post-remedial action report (Ref. 7) for the subject property, all remediated areas except three manholes and the interior surface of 165 m (540 ft) of interconnecting pipe meet DOE guidelines. The remedial activities performed on the property were reviewed by the independent verification contractor (IVC), the ORNL environmental survey team. The purpose of this review was to independently verify data supporting the adequacy of the remedial action and to confirm that the site is in compliance with applicable remedial action guidelines. Based on all data collected, the property conforms to all applicable radiological guidelines established for release of the property.

Some radioactive contamination above DOE guidelines remains in the three manholes and connecting pipe within the foundation at the Rufert Building. This contamination is nontransferable and resistant to all decontamination techniques (normal and aggressive techniques). Because of this resistance, the projected cost to remediate this material would be unreasonably high

TABLE I-1
SUMMARY OF RESIDUAL CONTAMINATION GUIDELINES

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. In implementing this limit, DOE applies as low as reasonable achievable principles to set site-specific guidelines.

SOIL GUIDELINES

Radionuclide	Soil Concentration (pCi/g) Above Background[a,b,c]
Radium-226 Radium-228 Thorium-230 Thorium-232	5 pCi/g when averaged over the first 15 cm of soil below the surface; 15 pCi/g when averaged over any 15-cm-thick soil layer below the surface layer.
Other Radionuclides	Soil guidelines will be calculated on a site-specific basis using the DOE manual developed for this use.

STRUCTURE GUIDELINES

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 has no radiological restrictions on its use; structures that will be demolished or buried are excluded. The applicable generic guideline (40 CFR 192) is: In any occupied or habitable building, the objective of remedial action shall be, and reasonable effort shall be made to achieve, an annual average (or equivalent) radon decay product concentration (including background) not to exceed 0.02 WL[d]. In any case, the radon decay product concentration (including background) shall not exceed 0.03 WL. Remedial actions are not required in order to comply with this guideline when there is reasonable assurance that residual radioactive materials are not the cause.

External Gamma Radiation

The average level of gamma radiation inside a building or habitable structure on a site that has no radiological restrictions on its use shall not exceed the background level by more than 20 μR/h and will comply with the basic dose limits when an appropriate-use scenario is considered.

Indoor/Outdoor Structure Surface Contamination

	Allowable Surface Residual Contamination[e] (dpm/100 cm²)		
Radionuclide[f]	Average[g,h]	Maximum[h,i]	Removable[h,j]
Transuranics, Ra-226, Ra-228, Th-230, Th-228 Pa-231, Ac-227, I-125, I-129[k]	100	300	20
Th-Natural, Th-232, Sr-90, Ra-223, Ra-224 U-232, I-126, I-131, I-133	1,000	3,000	200
U-Natural, U-235, U-238, and associated decay products	5,000 α	15,000 α	1,000 α
Beta-gamma emitters (radionuclides with decay modes other than alpha emission or spontaneous fission) except Sr-90 and others noted above[l]	5,000 β - γ	15,000 β - γ	1,000 β - γ

TABLE I-1
(CONTINUED)

[a]These guidelines take into account ingrowth of radium-226 from thorium-230 and of radium-228 from thorium-232, and assume secular equilibrium. If either thorium-230 and radium-226 or thorium-232 and radium-228 are both present, not in secular equilibrium, the guidelines apply to the higher concentration. If other mixtures of radionuclides occur, the concentrations of individual radionuclides shall be reduced so that (1) the dose for the mixtures will not exceed the basic dose limit, or (2) the sum of ratios of the soil concentration of each radionuclide to the allowable limit for that radionuclide will not exceed 1 ("unity").

[b]These guidelines represent allowable residual concentrations above background averaged across any 15-cm-thick layer to any depth and over any contiguous 100-m^2 surface area.

[c]If the average concentration in any surface or below-surface area less than or equal to 25 m^2 exceeds the authorized limit or guideline by a factor of $(100/A)^{1/2}$, where A is the area of the elevated region in square meters, limits for "hot spots" shall also be applicable. Procedures for calculating these hot spot limits, which depend on the extent of the elevated local concentrations, are given in the DOE Manual for Implementing Residual Radioactive Materials Guidelines, DOE/CH/8901. In addition, every reasonable effort 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.

[d]A working level (WL) is any combination of short-lived radon decay products in 1 liter of air that will result in the ultimate emission of 1.3×10^5 MeV of potential alpha energy.

[e]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.

[f]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.

[g]Measurements of average contamination should not be averaged over an area of more than 1 m^2. For objects of less surface area, the average should be derived for each such object.

[h]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.

[i]The maximum contamination level applies to an area of not more than 100 cm^2.

[j]The amount of removable radioactive material per 100 cm^2 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 wipe with an appropriate instrument of known efficiency. When removable contamination on objects of surface area less than 100 cm^2 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 tehniques to measure removable contamination levels if direct scan surveys indicate that total residual surface cotamination levels are within the limits for removable contamination.

[k]Guidelines for these radionuclides are not given in DOE Order 5400.5; however, these guidelines are considered applicable until guidance is provided.

[l] 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.

relative to the long-term reduction in risk to workers and members of the general public. Therefore, the contamination was left in place. A hazard assessment was performed to evaluate the risks associated with this residual radioactive material and justify the use of supplemental limits as set forth in DOE Order 5400.5 (Ref. 6). The assessment concluded that present or future exposures from this contamination are substantially below the DOE guideline for protection of the general public (Ref. 8).

5.0 SUMMARY OF REMEDIAL ACTION

The following sections briefly describe the remedial action process and measures taken to protect the public and the environment.

5.1 PRE-REMEDIAL ACTION ACTIVITIES

Based on survey results obtained in 1980 and 1985 that indicated the presence of radioactive contamination (Refs. 3 and 4), DOE designated the site for remedial action (Ref. 7). An additional survey of the property was performed in 1993 to more accurately define the boundaries of contamination (Ref. 5).

5.2 DECONTAMINATION ACTIVITIES

Radioactive contamination at the Seymour site was limited to six rooms in the Rufert Building (Exhibit III, Figure III-1) and two areas outside the building (Exhibit III, Figure III-2). Contamination inside the building was found on the walls, floors, floor drains, expansion joints, overhead beams and trusses, overhead pipes, overhead ducts and fans, and overhead light fixtures. The outside contamination was limited to the surface soils at the two contaminated areas.

Table I-2 contains a description of the remedial techniques used at Seymour. Remedial action performed on the exterior areas involved excavation of the contaminated soil and backfilling of the excavated areas.

Three manholes and the interconnecting piping that were contaminated above criteria remain in place at the site. This contamination is nontransferable and extremely resistant to all decontamination efforts. A hazard assessment (Ref. 8) was performed to determine the risk from this contamination.

Approximately 25.1 m^3 (32.8 yd^3) of contaminated building material waste was generated during the building remediation. Of this material, 9.0 m^3 (12 yd^3) was classified as low-level radioactive waste (LLRW), and 16.1 m^3 (21.1 yd^3) was classified as asbestos-containing material (ACM)/LLRW. Approximately 3.1 m^3 (4.1 yd^3) of radioactively contaminated soil was removed from the two exterior areas.

All contaminated material generated during the expedited removal action was packaged in accordance with applicable Department of Transportation regulations in ten 55-gal drums and ten low-specific-activity (LSA) transportable boxes. Table I-3 provides the individual drum and LSA box inventory. All the waste containers were shipped to the Envirocare LLRW commercial disposal facility in October 1993.

Table I-2

Decontamination Techniques Used at the Seymour Site

Technique	Description
HEPA vacuuming	High-efficiency particulate air- (HEPA-) filtered vacuum cleaners were used to remove loose contamination primarily in overhead areas.
Hand wiping/light abrasion	Small areas and structural surfaces (primarily overhead) that were either inaccessible or resistant to HEPA vacuuming were wiped with a dry cloth or a cloth wetted with a detergent solution to remove loose surface contamination. Contamination that was resistant to simple wiping was brushed with a wire brush.
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 floor and wall surfaces by using metallic abrasive material on the work surface and removing incremental layers of contaminated material.
Using variable-speed cylinder hones	Piping was decontaminated using an abrasive hone on a flexible shaft attached to a variable-speed motor.
Cutting with a gasoline-powered circular saw	A gasoline-powered circular saw with a concrete blade, vented to the exterior of the building, was used to remove sections of the foundation that had contaminated expansion joint material attached.
Scraping and chiseling	Contaminated asbestos tiles were removed using hand-held scrapers. The expansion joint material at the wall/floor interface was removed using pneumatic and hand-held chisels.
Carbon dioxide blasting	Carbon dioxide pellets were shot against contaminated surfaces. The technique was used only in a limited test area at the Seymour site because of its inability to decontaminate concrete and the high exhaust pressures generated.

Table I-3
Drum and LSA Box Inventory

Identification Number	Contents	Type of Waste	Container Weight (lb)
Drums			
CD01901	Ten plastic bags containing expansion joint material	LLRW[a]	300
CD01902	Plastic bags containing expansion joint material	LLRW	300
CD01903	Drain sludge from Manholes 1 and 2	LLRW	650
CD01904	Drain sludge from Manholes 1 and 2	LLRW	500
CD01905	Drain sludge and HEPA filters	LLRW	500
CD01906	Drain sludge from Manhole 3	LLRW	550
CD01907	Drain sludge from Manhole 3	LLRW	620
CD01908	Concrete and expansion joint material	LLRW	250
CD01909	Sludge	LLRW	300
CD01910	Drain sludge	LLRW	550
LSA Boxes			
CL01209	ACM[b]	LLRW/ACM	4,000
CL01210	ACM and soil	LLRW/ACM	6,600
CL01211	ACM and misc. building materials	LLRW/ACM	4,000
CL01212	ACM, soil, dust, and scrap metal	LLRW/ACM	7,720

Table I-3
(continued)

Identification Number	Contents	Type of Waste	Container Weight (lb)
LSA Boxes (cont.)			
CL01213	Filters, rags, rocks, and soil	LLRW/ACM	6,600
CL01214	HEPA[c] filters, dust, and soil	LLRW	2,800
CL01215	Respirator filters, dust, PPE[d], rock, and soil	LLRW/ACM	4,350
CL01216	Concrete, filters, and iron pipe fiberglass insulation	LLRW/ACM	2,650
CL01217	Filters, bags, and rags	LLRW	3,850
CL01218	ACM, concrete, dust, filters conduit, and hand vacuum	LLRW/ACM	3,250

[a]LLRW - low-level radioactive waste.

[b]ACM - asbestos-containing material.

[c]HEPA - high-efficiency particulate air.

[d]PPE - personal protective equipment.

5.3 POST-REMEDIAL ACTION MEASUREMENTS

After remedial action was completed, a radiological survey of the remediated areas was conducted (Ref. 9). Measurements and soil samples were taken to confirm that no radioactive contamination exceeding DOE guidelines remained in the remediated areas [other than the contamination in the three manholes and the 165 m (540 ft) of interconnecting piping]. Details about the post-remedial action measurements for the Seymour site are provided in Reference 7.

5.3.1 Outdoor Areas

The two areas outside the Rufert Building that were contaminated with uranium-238 were excavated and then surveyed using direct gamma measurements. Post-remediation soil samples were also obtained. Analysis of the soil samples indicated that the highest measured uranium-238 concentration above background was 7 pCi/g. Using this value, DOE calculated the potential dose to a member of the general public. The estimated dose was below 1 mrem/yr, which is well below the DOE limit of 100 mrem/yr above background for members of the general public (Ref. 10).

5.3.2 Indoor Areas

For the areas of contamination inside the Rufert Building, direct alpha measurements and direct beta/gamma measurements were taken. In addition, transferable beta/gamma contamination was measured at any location that exhibited direct alpha or beta/gamma contamination above the guidelines for removable contamination (1,000 dpm/100 cm^2). No residual radioactive contamination above DOE guidelines was detected in any accessible area of the building.

5.4 VERIFICATION ACTIVITIES

After remedial action activities were completed, the IVC conducted a survey to verify that the site was remediated to levels below DOE guidelines (Ref. 9). The objective of the independent verification survey was to confirm that surveys, sampling, and analysis conducted during the remedial action process provided an accurate and complete description of the radiological status of the property.

The IVC's activities included reviewing the published radiological survey reports and the post-remedial action reports, 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. 11). Upon completion of the verification activities, the IVC prepared verification reports and submitted them to DOE (Ref. 9).

5.5 PUBLIC AND OCCUPATIONAL EXPOSURE

5.5.1 Public Exposure

During cleanup activities, increased radiological exposure to the general public could have resulted from airborne radioactively contaminated dust from excavations. To avoid potential increased radiological exposure to the general public during cleanup activities, all removal actions were controlled to reduce the amount of dust generated and prevent its migration outside the work area. Particulate air monitoring devices were placed near the work area to provide continuous air monitoring and to ensure that contamination was not being spread outside the work area. All concentrations of airborne contaminants were compared to the DOE derived concentration guide (DCG) of 2×10^{-12} μCi/ml for uranium-238 for members of the general public (Ref. 6). Concentrations of uranium-238 measured by area air particulate monitors did not exceed 10 percent of the DCG, ranging from 2×10^{-15} to 2×10^{-13} μCi/ml.

5.5.2 Occupational Exposure

During all phases of remediation, all employees working at the Seymour site were monitored for beta/gamma radiation exposure. Thermoluminescent dosimeters measured zero dose during the Seymour remediation. During remedial action activities that had the potential for generating airborne contamination, workers were required to wear lapel monitors to indicate the concentration of uranium-238. All concentrations of airborne contaminants were compared to the DOE DCG for occupational workers of 2×10^{-11} μCi/ml for uranium-238 (Ref. 12). Measurements from lapel monitors worn by the workers ranged from 3.6×10^{-14} to 1.3×10^{-12} μCi/ml. No measurement exceeded the action level of 10 percent of the DOE guideline for occupational workers established for the remedial action.

5.6 COSTS

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

Table I-4
Cost of Remedial Action at the Seymour Specialty Wire Site

Description	Amount
Characterization	$29,000
Design Engineering	2,000
Remedial Action Operations	1,583,000
Waste Transportation	14,000
Waste Disposal	38,000
Final Engineering Reports	55,000
Project Support[a]	1,297,000
TOTAL	$3,018,000

[a]Project support cost includes all travel, materials and supplies, leased equipment, and administrative cost.

REFERENCES

1. U.S. Department of Energy (DOE), 1980. *Description of the Formerly Utilized Sites Remedial Action Program,* ORO-777, Oak Ridge, Tenn. (September).

2. Atomic Energy Commission (AEC), 1964. "Contamination Survey at Reactive Metals, Inc., Seymour, Connecticut," Feed Materials Division and Health Protection Engineering Division (October 30).

3. Oak Ridge National Laboratory (ORNL), 1980. *Preliminary Survey of Bridgeport Brass Company, Seymour, Connecticut,* Health and Safety Research Division, Oak Ridge, Tenn. (March).

4. ORNL, 1985. *Follow-up Survey of Bridgeport Brass Company, Seymour, Connecticut,* ORNL/RASA-85/4, Health and Safety Research Division, Oak Ridge, Tenn. (May).

5. ORNL, 1993. *Radiological Survey Results at the Former Bridgeport Brass Company Facility, Seymour, Connecticut* (Draft), ORNL/TM-12225, Health and Safety Research Division (February).

6. DOE, 1990. *Radiation Protection of the Public and the Environment,* DOE 5400.5, Office of Environment, Safety and Health (February).

7. Bechtel National, Inc. (BNI), 1994. *Post-Remedial Action Report for the Removal Action at the Seymour Specialty Wire Site, Seymour, Connecticut,* DOE/OR/21949-370, Oak Ridge, Tenn. (January).

8. BNI, 1994. *Hazard Assessment for Radioactive Contamination at the Seymour Site, Revision 2, Seymour, Connecticut,* Oak Ridge, Tenn. (August).

9. ORNL, 1993. *Results of the Independent Radiological Verification Survey at the Former Bridgeport Brass Company Facility, Seymour, Connecticut,* ORNL/TM-12390.

10. James W. Wagoner, Director, DOE Division of Off-Site Programs, Office of Eastern Area Programs, Office of Environmental Restoration, Memorandum to L. Price, Director, DOE Former Sites Restoration Division, "Soil Cleanup at the Seymour, Connecticut Site," December 21, 1992.

11. DOE 1990. *Verification and Certification Protocol for the Office of Environmental Restoration Formerly Utilized Sites Remedial Action Program and Decontamination and Decommissioning Program,* DOE/NRN/VC-9011 (November).

12. 10 *Code of Federal Regulations* 835

13. William R. Voigt, Jr., Director, Office of Remedial Action and Waste Technology, Office of Nuclear Energy, Department of Energy, Memorandum to Joe LaGrone, Manager, Oak Ridge Operations Office, Department of Energy, "Designation of Sites for Remedial Action - Metal Hydrides, Beverly, MA; Bridgeport Brass, Adrian, MI and Seymour, CT; National Guard Armory, Chicago, IL," December 17, 1985.

14. DOE, 1986. *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. (February).

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 m^2.

(1) Hot Spots. If the average concentration in any surface or below-surface area less than or equal to 25 m^2, 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 x 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 μR/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 cm²)[1] Average[3,6]	Maximum[4,5]	Removable[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.

* 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).

6/ The amount of removable material per 100 cm^2 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 cm^2 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.

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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 5000.3, Unusual Occurrence Reporting System

(2) DOE 5440.1C, Implementation of the National Environmental Policy Act

(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.

Vertical line denotes change.

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 Assistant Secretary or Director.

(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 $pCi/m^2/s$ 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 Operations Office may request that supplemental limits or an exception be applied. The responsible Operations Office 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 Operations Office shall obtain approval for specific supplemental limits or exceptions from Headquarters as specified in paragraph IV.5, and shall provide to the Headquarters Program Element 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 Operations Office 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 Operations Office 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 Operations 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 SEYMOUR SPECIALTY WIRE SITE IN SEYMOUR, CONNECTICUT, 1992-1993

1.0 CERTIFICATION PROCESS

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

2.0 SUPPORTING DOCUMENTATION

For the convenience of the reader, Subsections 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 will be listed in the table of contents at the beginning of this docket and in Subsections 2.1 through 2.11. Lengthy documents are incorporated by reference only and are designated as such with the abbreviation "Ref."; the actual documents are provided as attachments to the certification docket at the time of publication.

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 subject property has been decontaminated to comply with these guidelines. The first document listed is included as Appendix A of Exhibit I, the next two documents are included here by reference, and the remaining document is included in this section.

U.S. Department of Energy. "U.S. Department of Energy Guidelines for Residual Radioactive Material at Formerly Utilized Sites Remedial Action Program and Remote Surplus Facilities Management Program Sites," Rev. 2, March 1987.	App. I-A
U.S. Department of Energy. *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. 14
BNI, *Hazard Assessment for Radioactive Contamination at the Seymour Site*, Revision 2, Seymour, Connecticut, Oak Ridge, TN, August 1994.	Ref. 8
James W. Wagoner II, Director, Division of Off-site Programs, Office of Eastern Area Programs, Office of Environmental Restoration, DOE, Memorandum to L. Price, "Soil Cleanup at the Seymour, Connecticut, Site," December 21, 1992.	II-3

EFG (07-90)

098697

United States Government **Department of Energy**

memorandum

DATE DEC 21 1992

REPLY TO ATTN OF EM-421 (W. A. Williams, 903-8149)

SUBJECT: Soil Cleanup at the Seymour, Connecticut, Sites

TO L. Price, OR

During the expedited characterization and cleanup of the Seymour, Connecticut, Site, two small areas of contaminated soil were discovered and remediated. This memo is to approve the cleanup levels that were accomplished, pursuant to the applicable requirements in DOE Order 5400.5, Chapter IV.

The larger of the areas is approximately 10 meters square and was excavated to a depth of approximately 6 inches. The smaller of the areas was approximately 2 meters square. After excavation, the highest measured uranium-238 concentration above background was 7 picoCuries per gram. Both excavations were filled following verification of the cleanup.

My staff has utilized version 4.3 of the RESidual RADioactivity code to calculate the doses which might result from the residual uranium in the soil. For the purposes of the calculation, the following assumptions were made:

Area of contamination	100 square meters
Thickness of contamination	1 meter
Cover depth	.15 meter (six inches of fill)
Uranium-238 concentration	7 pCi/g (assumes background level of .8)
Uranium-234 concentration	7 pCi/g (based on U-238)
Uranium-235 concentration	.32 pCi/g (based on U-238)

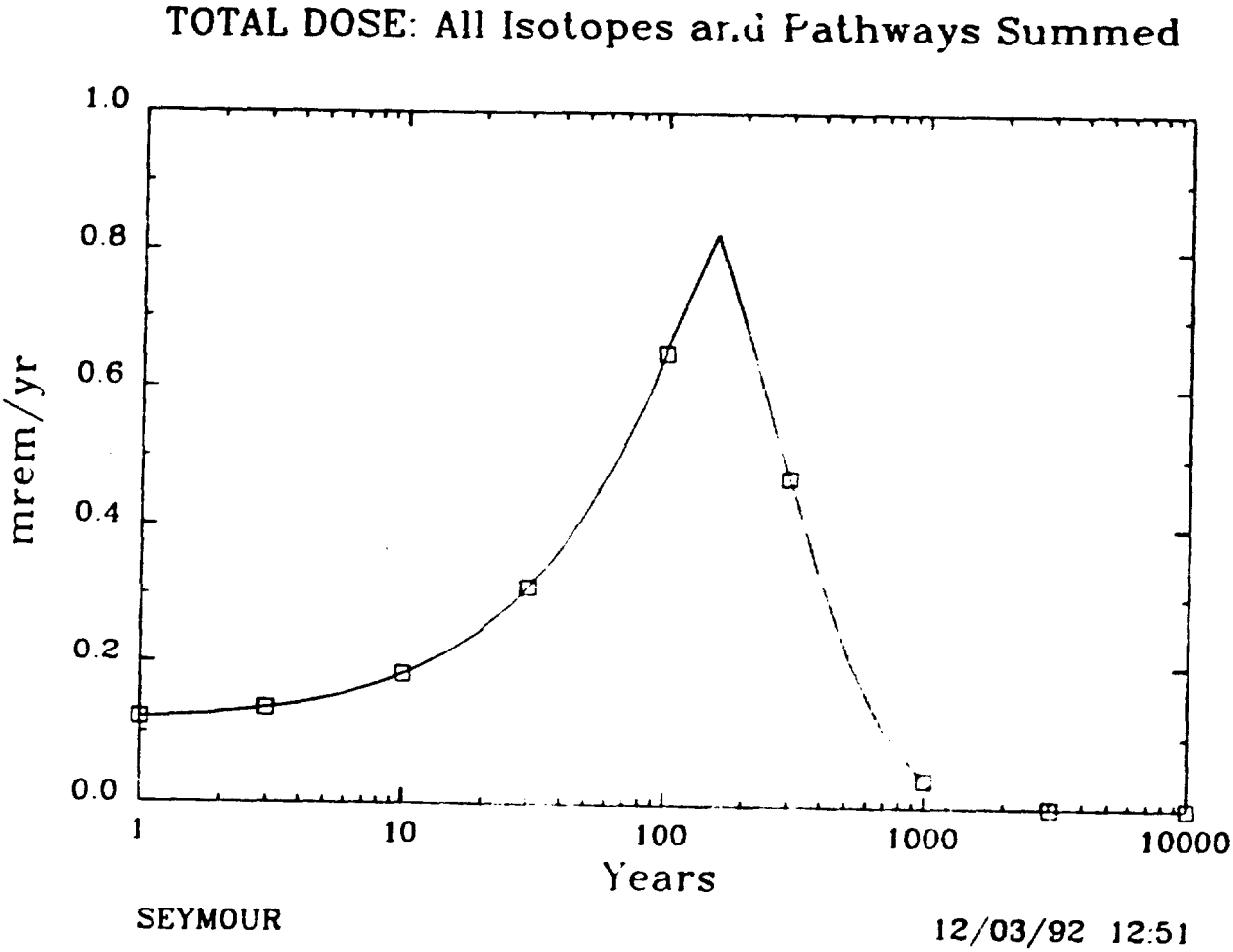
An assumption was made that off-site water was used for a residential farmer at the site; this assumption is reasonable because the area is presently served by a public water supply. If the public water supply were discontinued for any reason, the most likely source of water to a resident would be the river immediately adjacent to the site. Using these very conservative assumptions, the total calculated dose was less than 1 millirem per year. A graph showing the total calculated dose for the site as a function of time is attached for your information.

According to DOE Order 5400.5, Chapter IV, radiation doses to the maximum exposed individual for all plausible land uses must be less than 100 millirem per year. Further, the DOE Order requires appropriate measures to reduce exposure levels to those "As Low As Reasonably Achievable." The cleanup clearly accomplishes these requirements since the exposures are below the applicable limit by a factor of 100. Further cleanup is clearly unnecessary because of the low exposures.

As a result, the cleanup of the contaminated soil areas is approved and meets the requirements for release without radiological controls pursuant to DOE Order 5400.5, Chapter IV.

James W. Wagoner II
Director
Division of Off-Site Programs
Office of Eastern Area Programs
Office of Environmental Restoration

Attachment


TOTAL DOSE: All Isotopes and Pathways Summed
1.0
0.8
0.6
0.4
0.2
0.0
mrem/yr
1
10
100
1000
10000
Years
SEYMOUR
12/03/92 12:51

2.2 DESIGNATION OR AUTHORIZATION DOCUMENTATION

The following document designated or authorized the remedial action at Seymour. A copy follows.

William R. Voigt, Jr., Director, Office of Remedial Action and Waste Technology, Office of Nuclear Energy, Department of Energy, Memorandum to Joe LaGrone, Manager, Oak Ridge Operations Office, Department of Energy, "Designation of Sites for Remedial Action - Metal Hydrides, Beverly, MA; Bridgeport Brass, Adrian, MI and Seymour, CT; National Guard Armory, Chicago, IL," December 17, 1985. II-7

DATE: DEC 17 1935

54358

REPLY TO ATTN OF: NE-20

SUBJECT: Designation of Sites for Remedial Action - Metal Hydrides, Beverly, MA; Bridgeport Brass, Adrian, MI and Seymour, CT; National Guard Armory, Chicago, IL

TO: Joe LaGrone, Manager
Oak Ridge Operations Office

Based on the attached radiological survey data (Attachments 1 through 3) and an appropriate authority review, the following properties are being authorized for remedial action. It should be noted that the attached survey data are for designation purposes only and that Bechtel National, Inc. (BNI) should conduct appropriate comprehensive characterization studies to determine the extent and magnitude of contamination on these properties.

Site	Location	Priority
Former Bridgeport Brass Co. (General Motors)	Adrian, MI	Low
Former Bridgeport Brass Co. (Seymour Wire Specialty)	Seymour, CT	Low
National Guard Armory	Chicago, IL	Low
Former Metal Hydrides, Inc. (Ventron Div., Thiokol Corp.)	Beverly, MA	Med/Low

At the Bridgeport Brass Sites in Adrian, Michigan, and Seymour, Connecticut, the radioactive material is inaccessible, and if not disturbed, poses no threat to anyone, i.e., in drains, sewers, in concrete covered pits, etc. This being the case, OR/BNI should give serious consideration to leaving the radioactive material in place and arranging for institutional control until modification of the facilities occurs for other reasons. This approach was used for some of the contamination at Gilman Hall, Berkeley, California, and the University of Chicago, Chicago, Illinois. However, there may be other areas of contamination due to Manhattan Engineer District/Atomic Energy Commission activities below the floor at the General Motors plant in Adrian, Michigan, that have not been discovered because there are no as-built drawings or other drawings that show "underground" drains, pits, etc. This possibility should be considered by the BNI staff in planning the characterization survey.

A summary of the Ventron Corporation radiological survey report is attached (Attachment 4). The full report will be sent to you when it is finalized by ORNL. The data in the summary is the radiological basis for conducting remedial action at this facility.

904/2
3.2.3.2

If there are any questions, please call me on FTS 233-4716 or call Arthur Whitman of my staff on FTS 233-5439.

/s/ VOIGT

William R. Voigt, Jr.
Director
Office of Remedial Action
and Waste Technology
Office of Nuclear Energy

NE-23
Whitman
12/16/85
NE-23
DeLaney
12/16/85
NE-20
Baublitz
12/16/85
NE-20
Voigt
12/16/85

Attachments
1. Radiological Survey of the National Guard Armory, Chicago, IL
2. Radiological Survey of the Former Bridgeport Brass Co., Adrian, MI
3. Follow-up Survey of Bridgeport Brass Co., Seymour, CT
4. Preliminary Report of Ventron Site, Beverly, MA

bcc:
E. Keller, OR, w/attach.
B. Berven, ORNL, w/o attach.
J. Berger, ORAU, w/o attach.
A. Whitman, NE-23, w/o attach.
Aerospace, w/o attach.

Baublitz RF
Whitman RF
NE8 (4)

NE-23:AWhitman:ph:353-#5439:12/16/85:IBM:346/62:3.21.3
3.22
3.7
3.13.4

904/3

2.3 RADIOLOGICAL CHARACTERIZATION REPORTS

The pre-remedial status of the Seymour property is described in the following documents referenced in Exhibit I.

ORNL, 1980. *Preliminary Survey of Bridgeport Brass Company Seymour, Connecticut*, Oak Ridge, Tenn. (March). Ref. 3

ORNL, 1985. *Follow-up Survey of Bridgeport Brass Company Seymour, Connecticut*, ORNL/RASA-85/4, Oak Ridge, Tenn. (May). Ref. 4

ORNL, 1993. *Radiological Survey Results at the Former Bridgeport Brass Company Facility, Seymour, Connecticut*, ORNL/TM-12225 (June). Ref. 5

2.4 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) AND COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA) DOCUMENTS

The expedited remedial action at Seymour was categorically excluded from NEPA requirements. In addition, it was not a CERCLA activity.

Gary Hartman, Site Manager, Former Sites Restoration Division, Department of Energy, Memorandum to Steve Liedle, Project Manager, Bechtel National, "Approval of Categorical Exclusion (CX) Determination - Remedial Action at the Seymour Specialty Wire (Seymour) Site," March 26, 1992. II-11

Department of Energy
Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831 – 0723

March 26, 1992

Mr. Steve Liedle
Project Manager - Region I Sites
Bechtel National, Inc.
Post Office Box 350
Oak Ridge, Tennessee 37831

Dear Steve:

APPROVAL OF CATEGORICAL EXCLUSION (CX) DETERMINATION - REMOVAL ACTION AT THE SEYMOUR SPECIALTY WIRE (SEYMOUR) SITE

Enclosed is the CX approved by the Manager, DOE Oak Ridge Field Office, for the removal and disposal of radiologically contaminated materials at the Seymour site. Pursuant to a memorandum from Paul L. Ziemer dated November 14, 1991 (also attached), EH-25 no longer provides affirmative responses to CX determinations. The document signed by Joe La Grone on February 29, 1992, represents the necessary NEPA documentation required prior to start of field activities.

If you have any questions, please call me at (615) 576-0273.

Sincerely,

Gary Hartman

Gary Hartman, Site Manager
Former Sites Restoration Division

Enclosures

cc w/enclosures:
Bill McNeill, SAIC
Mike Redmon, BNI
Teresa Perry, EW-93, OR
Bill Seay, EW-93, OR

United States Government

Department of Energy

memorandum

Oak Ridge Operations

DATE February 29, 1992

REPLY TO ATTN OF EW-93:Hartman

SUBJECT CATEGORICAL EXCLUSION (CX) DETERMINATION - REMOVAL ACTION AT THE SEYMOUR SPECIALTY WIRE SITE

TO Carol M. Borgstrom, Director, Office of NEPA Oversight, EH-25, GTN

Attached is a categorical exclusion (CX) determination describing the proposed removal and disposal of radiologically contaminated materials at the Seymour Specialty Wire (Seymour) site. I have determined that this action conforms to an existing NEPA Section D CX and may be categorically excluded from further NEPA review and documentation. This CX determination was made pursuant to Section D of the DOE NEPA Guidelines, 55 FR 37178, as referenced on the attached determination.

Questions you have concerning NEPA compliance issues may be directed to Patricia W. Phillips, OR NEPA Compliance Officer, at (FTS) 626-4200.

Joe La Grone
Manager

Attachment

cc w/attachment:
G. S. Hartman, EW-93, OR
Lynn Lawson, EM-431, TREV
P. W. Phillips, SE-311, OR
L. K. Price, EW-93, OR
R. S. Scott, EM-20, GTN
J. W. Wagoner, EM-421, GTN

CATEGORICAL EXCLUSION (CX) FOR REMOVAL OF RADIOLOGICALLY CONTAMINATED MATERIALS AT THE SEYMOUR SPECIALTY WIRE (SEYMOUR) SITE

PROPOSED ACTION: Removal of Radiologically Contaminated Materials

LOCATION: Seymour Specialty Wire (Seymour) Site, Seymour, Connecticut [FUSRAP site]

DESCRIPTION OF PROPOSED ACTION: The proposed action is to safely remove and dispose of radiologically contaminated materials at the Seymour Site, thereby eliminating potential exposure of workers and the public to contamination exceeding applicable cleanup guidelines. There are no known hazardous wastes at the site; however, if hazardous wastes are commingled with radioactive waste, it will be removed, stored, and disposed of at an existing facility designed to accept these wastes. The action includes excavation of radiologically contaminated material; decontamination, removal, replacement, and/or repair of floor expansion joints and floor drains; and packaging, transportation, and disposal of low-level radiologically contaminated materials to existing facilities at the Hanford Reservation near Richland, Washington, or another appropriately licensed disposal site. In the event that disposal delays require temporary on-site storage of wastes, storage would be conducted in accordance with all applicable regulations. Removal action at this site is being undertaken as part of DOE's Formerly Utilized Sites Remedial Action Program (FUSRAP).

The proposed removal action is being conducted under DOE authorities pursuant to the Atomic Energy Act (AEA); will not involve construction or expansion of waste disposal, recovery, or treatment facilities; will be implemented in accordance with applicable statutory and regulatory requirements and permits; and is consistent with the final remedial action for the site. The proposed action will not adversely affect any environmentally sensitive area defined in the below referenced Federal Register Notice, including archaeological or historical sites, potential habitats of endangered or threatened species, floodplains, wetlands, and sole-source aquifers.

The estimated cost for this proposed removal action is less than $2 million and will take less than 12 months from the time activities begin on-site.

CX TO BE APPLIED: From Section D, DOE National Environmental Policy Act (NEPA) Guidelines, as amended (Federal Register, Vol. 55, No. 174, page 37178, September 7, 1990), under actions that "Normally Do Not Require EAs or EISs," "c. Removal actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (including those taken as final response actions and those taken before remedial action) and actions similar in scope under the Resource Conservation and Recovery Act (RCRA) and other authorities (including those taken as partial closure actions and those taken before corrective action)."

CATEGORICAL EXCLUSION (CX) FOR
REMOVAL OF RADIOLOGICALLY CONTAMINATED MATERIALS
AT THE SEYMOUR SPECIALTY WIRE (SEYMOUR) SITE

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 2-12-92

Patricia W. Phillips, OR NEPA Compliance Officer Date

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

W. D. Adams 3-18-92

William D. Adams, Assistant Manager for Environmental Restoration and Waste Management Date

Based on the recommendations of the OR 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 3-29-92

Joe La Grone, Manager, DOE Oak Ridge Field Office, OR Date

EH-25 has reviewed this determination and has no objection.

Carol Borgstrom, Director, Office of NEPA Oversight Date

DATE November 14, 1991

REPLY TO ATTN OF EH-25

SUBJECT National Environmental Policy Act (NEPA) Procedures for Review of Categorical Exclusions (CXs)

TO Distribution

In light of our collective experience in the preparation and review of CXs since SEN-15 was issued in February 1990, and because of the satisfactory results achieved, I have determined that it is appropriate to simplify CX procedures. This memorandum modifies previous guidance concerning EH oversight of CXs provided in the EH memorandum of March 2, 1990: "Interim Procedural Guidance for Implementation of SEN-15-90."

Responsibility for ensuring the quality and sufficiency of CXs resides with line management. Our experience indicates that Secretarial Officers, and Field Office Managers to whom this authority has been delegated, exercise their responsibility for CXs satisfactorily. Therefore, as of this date, EH will no longer review details of CXs. Rather, EH will focus on the threshold question of whether the level of NEPA review is appropriate. EH will notify Secretarial Officers or Field Office Managers only if it objects to a CX and will no longer provide affirmative responses.

It should be noted that this new procedure does not change provisions of the NEPA Order, DOE 5440.1D, requiring Secretarial Officers and Field Office Managers to send copies of CXs to EH-25 within two weeks of approval, except for certain CXs for which documentation is not required. Also, it does not change the related provision under which EH must respond within two weeks if it objects.

I believe these streamlined procedures will benefit DOE NEPA compliance overall by enabling us to focus resources on more significant issues. If you have any questions about these procedural changes, please contact Carol M. Borgstrom, Director, Office of NEPA Oversight, on (202) 586-4600 (FTS 896-4600).

Paul L. Ziemer, Ph.D.
Assistant Secretary
Environment, Safety and Health

2.5 REAL ESTATE INSTRUMENTS

An access agreement was obtained for the site before remedial action activities began. The letters granting access to the Seymour site follows:

Bechtel

Oak Ridge Corporate Center
151 Lafayette Drive
P.O. Box 350
Oak Ridge, Tennessee 37831-0350

Facsimile. (615) 220-2100

Bechtel Job No. 14501, FUSRAP Project
DOE Contract No. DE-AC05-91OR21949
Code: 2600/WBS: 142

APR 01 1992

Mr. R. D. McEvoy
Credit Manager
Seymour Specialty Wire Co.
15 Franklin Street
Seymour, CT 06483

Subject: Transmittal of Signed Access Agreement

Dear Mr. McEvoy:

Enclosed for your files is a fully executed copy of the agreement between you and the U.S. Department of Energy. If you have any further questions, please call our toll free number 1-800-253-9759 and leave a message.

Very truly yours,

G. K. Hovey
Vice President and
Program Manager - FUSRAP

JPS:nbm
Enclosure: Access Agreement

Concurrence: Nancy B. Myers nbm
John P. Schlatter JPS

Bechtel National, Inc.

ACCESS AGREEMENT

The undersigned persons (hereinafter individually and collectively referred to as the "Owner") represent that they own the following property (hereinafter referred to as the "Premises"):

Seymour Specialty Wire Co.
15 Franklin Street
Seymour, CT 06483

The following matters are understood by the Owner:

The United States of America (hereinafter referred to as the "Government"), acting through the U. S. Department of Energy (DOE), will provide or contract for radiological surveys and engineering assessments for the following purposes: (1) DESIGNATION - determining if there is radiological contamination on the Premises sufficient to require remedial action. If the Premises are designated for remedial action, the next step will be (2) CHARACTERIZATION - accurately defining the extent of contamination in order to design remedial action.

DOE shall be responsible for loss or destruction of, or damage to, the Owner's real and personal property caused by the activities of DOE, their authorized representatives, agents, contractors and subcontractors, in exercising any of the rights granted in this Agreement; PROVIDED, that such responsibility shall be limited to restoration of said real and personal property to a condition comparable to its condition immediately prior to the conduct of any activities on the Premises by techniques of backfilling, seeding, sodding, landscaping, rebuilding, repair or replacement.

If the Premises do not require remedial action, this Agreement will terminate upon completion of the designation survey. If the property is designated, this Agreement will remain in effect until completion of the characterization.

Nothing in this document shall be deemed to obligate the Owner to enter into an agreement for the performance of remedial action. No remedial action shall be performed until and unless (1) DOE shall have determined the need for and selected the appropriate remedial action, and (2) the DOE and Owner have entered into a written agreement providing for the performance of such remedial action.

By signing this document and or delivering it to the Department of Energy, Oak Ridge Operations, Director of Former Sites Restoration Division, Administration Road, Oak Ridge, TN 37830, by mailing it to the Department of Energy, Oak Ridge Operations, Director of Former Sites Restoration Division, P.O. Box 2001, Oak Ridge TN 37831-8723 or by using the postage paid envelope provided; the Owner grants, effective March 18, 1992, to the DOE and its contractors and subcontractors, such access to the Premises as is reasonably required, and at times satisfactory to the Owner, for the performance of the radiological surveys and engineering studies.

The radiological surveys and engineering studies will involve some or all of the following activities:

Review existing building, structural, and site plans available to the Owner. Such plans shall be provided to DOE and its contractors, at no cost to the Owner. If such plans are not in the possession of the Owner but are available, the Owner agrees to permit the DOE and its representatives to borrow or acquire, at no cost to the Owner, those plans deemed necessary to facilitate the performance of these reviews.

Performing land surveys and placing survey stakes as required to characterize the premises, including any light clearing of vegetation that may be required.

Determining the location and extent of actual radioactive material on the Premises through measurements by various techniques and/or removing samples of contaminated materials by digging or core drilling.

Measuring and examining the Premises and structures thereon.

Documenting through photographs the existing conditions of the Premises and structures thereon.

Taking radiation measurements and performing core drilling inside structures, in such a manner as is agreeable to the Owner; placing a small radiation monitor in the structures, and collecting a sample for the monitor periodically.

Obligations of the Government hereunder shall be subject to the availability of funds appropriated by Congress which the DOE may legally spend for such purposes and nothing in this agreement implies that Congress will appropriate funds to perform this agreement.

THE UNITED STATES OF AMERICA

BY: DEPARTMENT OF ENERGY

BY: Lester K. Price
GSH 4/6

TITLE: Director, Former Sites Restoration Division

DATE: 3/27/92

SEYMOUR SPECIALTY WIRE CO., INC.
Printed Name of Property Owner

Signature of ~~Owner~~ President & CEO
Jeremiah J. Harrington

Signature of Owner (if Multiple)

DATE: March 18, 1992

PHONE: (203) 888-8704

If the signatory is a corporation or a company, please complete the following:

CORPORATE CERTIFICATE

I, Russell J. Melita, certify that I am the duly qualified Secretary of the corporation named herein as the owner; that Jeremiah J. Harrington who signed this consent form on behalf of the owner, was then President & CEO of said corporation by authority of its governing body and is within the scope of its powers. Witness my hand and the seal of said corporation.

SEAL Russell J. Melita
Name

Date March 18, 1992

090018

Bechtel

Oak Ridge Corporate Center
151 Lafayette Drive
P.O. Box 350
Oak Ridge, Tennessee 37831-0350

Facsimile: (615) 220-2100

Bechtel Job No. 14501, FUSRAP Project
DOE Contract No. DE-AC05-91OR21949
Code: 2600/WBS: 142

JUN 02 1992

Mr. P. D. McEvoy
Credit Manager
Seymour Specialty Wire Co.
15 Franklin Street
Seymour, Connecticut 06483

Subject: Transmittal of Signed Access Agreement

Dear Mr. McEvoy:

Enclosed for your files is a fully executed copy of the agreement between you and the U.S. Department of Energy. If you have any further questions, please call our toll free number 1-800-253-9759 and leave a message.

Very truly yours,

G. K. Hovey
Vice President and
Program Manager - FUSRAP

JFS:nbm
Enclosure: Access Agreement

Concurrence: Nancy B. Myers
John F. Schlatter

ACTION REQ'D [ ] YES [X] NO DUE DATE _____
RESPONSE TO CHRON NO. _____

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LICENSE AGREEMENT

THIS AGREEMENT, entered into this 12 day of May, 1992, effective as of the 12 day of May, 1992 between THE UNITED STATES OF AMERICA, (hereinafter called the "Government"), acting through the DEPARTMENT OF ENERGY (hereinafter called "DOE"), and SEYMOUR SPECIALTY WIRE CO., INC., (hereinafter called the "Licensor") who is the fee owner of the parcel of land (hereinafter called the Premises) which is described as the Seymour Specialty Wire Co., 15 Franklin Street, Seymour, Connecticut.

WITNESSETH THAT:

WHEREAS, the DOE through its contractor, Bechtel National, Inc., is conducting a low-level radioactive waste remedial action program at the Seymour Specialty Wire site; and

WHEREAS, the DOE desires to enter upon Licensor's Premises for the purpose of performing certain remedial actions as part of said program; and

WHEREAS, the Licensor is agreeable to the performance of remedial actions under the terms set forth below and described in the attached Addendum:

NOW THEREFORE, in consideration of the mutual covenants herein contained, the parties hereto agree as follows:

1. The Licensor hereby grants to the DOE or its designees a License giving: (a.) the right to enter upon the Premises for the purpose of removing low-level radioactive material from the Premises in accordance with the attached Remedial Action Plan; and (b) the right to enter upon the Premises to take soil samples, perform radiological surveys, and to perform or take any other reasonable action consistent with the expeditious completion of the subject remedial action; and (c) the right to periodically enter upon the Premises after completion of the remedial action for the purpose of conducting follow-up radiological surveys.

2. The Government shall be responsible for any loss or destruction of or damage to the Licensor's real or personal property caused by the rights given in this Agreement. This

responsibility shall be limited to restoration of said real and personal property to a condition comparable to its original condition by techniques of backfilling, seeding, sodding, landscaping, rebuilding, repair or replacement (as indicated in the attached Remedial Action Plan), and such other methods as may be agreed to between the parties at the time of restoration work in accordance with terms and conditions of this Agreement and upon certification by the DOE that the Licensor's Premises meet all applicable radiological criteria, the Licensor agrees to release the Government, its contractors, and the officers, employees, servants, and agents of either of them from all further responsibility related to the radioactive contamination and the remedial action covered by this Agreement.

3. The Licensor will notify the DOE in writing if the Premises are, or at any time during the term of this Agreement shall become, leased, sold or otherwise transferred to another party. The Licensor will also give written notice to any purchaser, lessee, or transferee of the applicability of the rights contained in this Agreement when such purchase, lease, or transfer takes place during the term of this Agreement. The Licensor hereby consents to any lessee of the Premises entering into a suitable agreement with the Government to cover any part of the remedial action that may affect such lessee. The conveyance of any interest in the Premises to another by the lessor shall be subject to this license.

4. All notices to the DOE may be given by delivering same to the Department of Energy, Director of the Former Sites Restoration Division, Administration Road, Oak Ridge, TN or by mailing same to the Department of Energy, Oak Ridge Operations, Director of the Former Sites Restoration Division, P. O. Box 2001, Oak Ridge, TN 37831-8723.

5. No member of or delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this Agreement if made a corporation for its general benefit.

6. The Licensor warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement

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upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees and bona fide established commercial or selling agencies maintained by the Licensor for the purpose of securing business. For breach or violation of this warranty, the Government shall have the right to annul this Agreement without liability or in its discretion to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

7. This Agreement shall terminate upon completion of the restoration work in accordance with the terms and conditions of this Agreement and upon certification by the DOE that the Licensor's Premises meet applicable radiological criteria to the maximum extent practicable.

8. Obligations of the Government hereunder shall be subject to the availability of funds appropriated by Congress which the DOE may legally spend for such purposes and nothing in this agreement implies that Congress will appropriate funds to perform this agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

THE UNITED STATES OF AMERICA

BY: DEPARTMENT OF ENERGY

BY: Lester K. Price

Lester K. Price

TITLE: Director, Former Sites Restoration Division

DATE: 5/28/92

Seymour Specialty Wire Co., Inc.
Printed Name of Property Owner

Signature of Owner, President & CEO

Signature of Owner (if Multiple)

DATE: May 12, 1992

PHONE: (203) 888-8704

090018.

If the signatory is a corporation or a company, please complete the following:

CORPORATE CERTIFICATE

I, Russell J. Melita, certify that I am the duly qualified Secretary of the corporation named herein as the owner; that Jeremiah J. Harrington who signed this consent form on behalf of the owner, was then President & CEO of said corporation by authority of its governing body and is within the scope of its powers. Witness my hand and the seal of said corporation.

SEAL Russell J. Melita
Name

Date May 12, 1992

040018

ADDENDUM
SEYMOUR SPECIALTY WIRE COMPANY

Radiological surveys have shown that small amounts of low-level radioactive contamination are present on the property. The following sequence of remediation operations is anticipated for this property:

A. Radiological measurements to precisely establish and mark contamination limits to guide removal.

B. Relocation of property items from the affected areas for storage by owner or by the remedial action contractor to an uncontaminated area during the cleanup operation.

C. Excavation of contaminated material from two or more floor drains.

D. Excavation of contaminated material from one or more floor expansion joints.

E. Removal of contaminated materials from other affected areas of structural surfaces.

F. Repair/replace all affected floor drains, floor expansion joints and other affected areas to original or equivalent condition.

F. Return of previously relocated property items.

G. Storage of containerized contaminated materials resulting from the remedial action at a mutually agreed upon location on the Seymour Specialty Wire property until the materials are shipped offsite for disposal.

2.6 POST-REMEDIAL ACTION REPORT

The following report documents the remedial action activities and the post-remedial action radiological status of the Seymour site.

Bechtel National, Inc., 1994. *Post-Remedial Action Report for the Removal Action at the Seymour Specialty Wire Site*, DOE/OR/21949-370, Oak Ridge, Tenn. (January). Ref. 7

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

This section references the documents related to the successful decontamination of the subject property, including the verification statement and the IVC's verification reports.

ORNL, 1993. *Results of the Independent Radiological Verification Survey at the Former Bridgeport Brass Company Facility, Seymour, Connecticut*, ORNL/TM-12390. Ref. 9

2.8 STATE, COUNTY, AND LOCAL COMMENTS ON REMEDIAL ACTION

The State of Connecticut and the Town of Seymour were kept fully informed of all DOE activities conducted at the Seymour site. Because the activity at Seymour was an expedited removal action, contact with the state and city was informal; appropriate state and city officials were kept informed via telephone conversations.

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 the subject property is in compliance with all applicable decontamination criteria and standards.

g. Availability of Funds: The actual amount of funds to be obligated in each fiscal year will be subject to availability of funds appropriated by Congress.

h. Assurances and Certifications: DOE requires the submission of preaward assurances of compliance and certifications which are mandated by law. Prospective applicants intending to submit an application in response to this solicitation should request a DOE Application Instruction package, which includes standard forms, assurances and certifications, by notifying the DOE Contract Specialist. It is advised that prospective applicants submit their requests in writing no later than February 21, 1995.

i. Questions & Answers: Questions regarding this solicitation should be submitted in writing to the DOE Contract Specialist no later than February 15, 1995. Questions and answers will be issued in writing as an amendment to this solicitation.

j. Preaward Costs: The government is not liable for any costs incurred in preparation of an application. Awardees may incur preaward costs up to ninety (90) days prior to the effective date of award. Should the awardee take such action, it is done so at the awardee's risk and does not impose any obligation on the DOE to issue an award (10 CFR 600.103)

k. Patents, Data, and Copyrights: Applicants are advised that patents, data, and copyrights will be treated in accordance with 10 CFR 600.33.

l. Environmental Impact: An applicant environmental checklist will be provided in the DOE Application Instruction package. Award will not be made until all environmental requirements are completed.

m. EPACT: Applicants shall be required to comply with Section 2306 of the Energy Policy Act of 1992 (EPACT) [42 U.S.C. 13525], in the event EPACT applies to financial assistance instruments issued as a result of this solicitation. A copy of Section 2306 will be included in the DOE Application Instruction package.

Dated: February 12, 1995.

Brad Bauer,

Director, Procurement Services Division.

[FR Doc. 95-1755 Filed 1-23-95; 8:45 am]

BILLING CODE 6450-01-P

Certification of the Radiological Condition of the Seymour Specialty Wire Site, Seymour, Connecticut, 1992-1993

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

ACTION: Notice of certification.

SUMMARY: DOE has completed remedial action to decontaminate the process building at the Seymour Specialty Wire Site in Seymour, Connecticut. The property was found to contain quantities of radioactive material from work performed for the Atomic Energy Commission. Post-remedial action radiological surveys show that the site now meets current guidelines for use without radiological restrictions. This notice announces the availability of the certification docket for remedial action taken at the site.

ADDRESSES: Copies of the docket may be inspected at:

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

Public Document Room, Oak Ridge Operations Office, U.S. Department of Energy, P.O. Box 2001, Oak Ridge, Tennessee 37831.

FOR FURTHER INFORMATION CONTACT: James W. Wagoner II, Director, Off-Site/Savannah River Program Division, Office of Eastern Area Programs (EM-421), Office of Environmental Restoration, U.S. Department of Energy, Washington, D.C. 20585, (301) 427-1721 Fax: (301) 427-1907.

SUPPLEMENTARY INFORMATION: DOE (Office of Environmental Restoration, Office of Eastern Area Programs, Off-Site/Savannah River Program Division) has implemented remedial action at the Seymour Specialty Wire Site in Seymour, Connecticut, (Town of Seymour, Volume 135, pages 430-437) as part of the Formerly Utilized Sites Remedial Action Program (FUSRAP). The objective of the program is to identify and clean up or otherwise control sites where residual radioactive contamination remains from activities carried out under contract to the Manhattan Engineer District and the Atomic Energy Commission (AEC) during the early years of the nation's atomic energy program. In December 1985, the Seymour site was formally designated by DOE for cleanup under FUSRAP.

The Bridgeport Brass Company, later known as the Seymour Specialty Wire Company, performed operations under contract to AEC from 1962 to 1964. The contract was for the development of a process for the extrusion of natural uranium meta[illegible]. The portion of the Seymour Facility where the AEC work was conducted, the Rufert Building, is currently leased by the Electric Cable Company as an industrial manufacturing plant.

In 1964, AEC conducted a radiological survey of the 1.9-ha (4.8-acre) parcel of the Seymour site that included the Rufert Building. The survey was conducted after the Bridgeport Brass Company terminated all of the AEC-related work at the Seymour site to consolidate the AEC contract work at the Bridgeport Brass facility in Ashtabula, Ohio. Although there were no AEC standards for surface contamination with which to compare the survey data at that time, the survey report completed at the time states that the radionuclide concentrations observed were "* * * quite low and certainly are insignificant with respect to any mode of exposure that can be hypothesized."

After FUSRAP was established, review of former AEC records indicated that the Seymour site should be resurveyed because of the lack of satisfactory release criteria at the time of the first survey. At the request of DOE, the Oak Ridge National Laboratory (ORNL) Health and Safety Research Division conducted a preliminary radiological survey of the facility on January 26, 1977. This survey consisted of gamma exposure measurements at 1 m (3.3 ft) from the floor surface, beta-gamma exposure rate measurements at 1 cm (0.4 in.) above the floor surface, and direct alpha radiation measurements taken on contact with the floor.

Because of gamma radiation measurements observed during the preliminary survey, ORNL conducted a follow-up survey at the site on August 26, 1980. The purpose of the follow-up survey was to determine whether the site exceeded current DOE guidelines for residual contamination on structural surfaces. Therefore, this survey was limited to those areas of the building where the former AEC contract work was known to have been carried out. In addition to the same types of measurements that were taken during the 1977 survey, smear samples were taken to determine the extent of transferable contamination. Smear samples taken from the bowls and traps of several floor drains yielded transferable contamination concentrations of 70 to 150 dpm/cm^2. Because of these readings and visual inspection of the drains, samples of the residue from the three drains were also collected for analysis. These samples contained uranium concentrations ranging from 2,860 to 15,600 pCi/g (the 1980 report does not indicate whether this was total uranium or uranium-238).

Both the 1977 and 1980 surveys indicated that radioactive contamination was present in the Rufert Building, primarily in the Dynapack

(extrusion) area, which exceeded current DOE guidelines for residual contamination on structural surfaces. As a result of these surveys, the site was designated for remediation under FUSRAP in December 1985.

ORNL conducted more extensive characterization surveys in May and June 1992 to more precisely define the locations and delineate the boundaries of the radioactive contamination identified during the initial designation surveys. The characterization surveys confirmed that the primary contaminants in the areas of the Rufert Building used to perform AEC work were uranium-238 and its decay products. The contamination extended throughout a much greater portion of the first floor of the building than originally thought. In addition, near-surface walkover gamma radiation surveys were conducted on exterior areas. Two small isolated areas were contaminated with radioactive material.

Based on data collected and evaluated during the characterization activities, an expedited removal action was conducted at the Seymour site in 1992 and 1993. Post-remedial action surveys have demonstrated that the site now meets applicable requirements for use without radiological restrictions. DOE has certified that any residual contamination which remains on site falls within guidelines for use without radiological restrictions and that reasonably foreseeable future use of the property will result in no radiological exposure above these radiological guidelines established to protect members of the general public as well as site occupants. These findings are supported by the DOE *Certification Docket for the Remedial Action Performed at the Seymour Site in Seymour, Connecticut, 1992–1993.* 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 U.S. Department of Energy Public Reading Room located in Room 1E–190 of the Forrestal Building, 1000 Independence Avenue S.W., Washington, D.C. 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. DOE, through the Oak Ridge Operations Office, Former Sites Restoration Division, has issued the following statement:

Statement of Certification: Seymour Specialty Wire Site, Former AEC Operations

DOE, Oak Ridge Operations Office, Former Sites Restoration Division, has reviewed and analyzed the radiological data obtained following remedial action at the Seymour Specialty Wire site (Town of Seymour, Volume 135, pages 430–437). Post-remedial action radiological surveys show that the site now meets current guidelines for use without radiological restrictions. Based on analysis of all data collected, DOE certifies that any residual contamination which remains on site falls within current guidelines for use without radiological restrictions. This certification of compliance also provides assurance that reasonably foreseeable future use of the property 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 Seymour Specialty Wire Company: 15 Franklin Street, Seymour, Connecticut 06482.

Issued in Washington, D.C., on January 19, 1995.

John E. Baublitz,

Acting Deputy Assistant Secretary for Environmental Restoration.

[FR Doc. 95–1753 Filed 1–23–95; 8:45 am]

BILLING CODE 6450–01–P

Energy Information Administration

Forms EIA–871A–F, "1995 Commercial Buildings Energy Consumption Survey"

AGENCY: Energy Information Administration, Department of Energy.

ACTION: Notice of Proposed Revision of Forms EIA–871A-F, "1995 Commercial Buildings Energy Consumption Survey (CBECS)," and Solicitation of Comments.

SUMMARY: The Energy Information Administration (EIA), as part of its continuing effort to reduce paperwork and respondent burden (required by the Paperwork Reduction Act of 1980), conducts a presurvey consultation program to provide the general public and other Federal agencies with an opportunity to comment on proposed and/or continuing reporting forms. This program helps to ensure that requested data can be provided in the desired format, reporting burden is minimized, reporting forms are clearly understood, and the impact of collection requirements on respondents can be properly assessed. Currently, EIA is soliciting comments concerning the proposed revision to the Forms EIA–871A–F, "1995 Commercial Buildings Energy Consumption Survey."

DATES: Written comments must be submitted within 30 days of the publication of this notice. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below of your intention to do so as soon as possible.

ADDRESSES: Send comments to Martha Johnson, Project Manager, EI–631, Forrestal Building, U.S. Department of Energy, Washington, D.C. 20585, (202) 586–1135, Facsimile (202) 586–0018, Internet: mjohnsonei.doe.gov.

FOR FURTHER INFORMATION: Requests for additional information or copies of the forms and instructions should be directed to Martha Johnson at the address listed above.

SUPPLEMENTARY INFORMATION:

I. Background
II. Current Actions
III. Request for Comments

I. Background

In order to fulfill its responsibilities under the Federal Energy Administration Act of 1974 (Pub. L. 93–275) and the Department of Energy Organization Act (Pub. L. 95–91), the Energy Information Administration is obliged to carry out a central, comprehensive, and unified energy data and information program. As part of this program, EIA collects, evaluates, assembles, analyzes, and disseminates data and information related to energy resource reserves, production, demand, and technology, and related economic and statistical information relevant to the adequacy of energy resources to meet demands in the near and longer term future for the Nation's economic and social needs.

The CBECS is a triennial survey that provides basic statistical information on consumption of and expenditures for energy in commercial buildings, and on the energy-related characteristics of these buildings. (Previous surveys were conducted in 1979, 1983, and 1986 under the name of the Nonresidential Buildings Energy Consumption Survey. The 1989 and 1992 surveys were collected using the new title, CBECS. To obtain this information, personal interviews are conducted for a sample of commercial buildings in the 50 states and the District of Columbia. For buildings in the survey, data are collected on structural characteristics, activities conducted inside the buildings, building ownership and

2.11 APPROVED CERTIFICATION STATEMENT

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

136757

DOE F 1325.8
(08-93)

United States Government

Department of Ener

memorandum

Nov 7 [illegible] AM '95

DATE: JAN 17 1995

REPLY TO ATTN OF: EM-421 (W. A. Williams, 427-1719)

SUBJECT: Recommendation for Certification of Remedial Action at the Seymour Specialty Wire Site, Seymour, Connecticut

TO: J. Baublitz, EM-40

I am attaching for your signature the Federal Register notice regarding the cleanup of contamination associated with the former Atomic Energy Commission (AEC) activities at the Seymour Specialty Wire Site in Seymour, Connecticut.

The Department of Energy (DOE), Office of Environmental Management, Office of Eastern Area Programs, Off-Site/Savannah River Program Division, has implemented remedial action at the Seymour Specialty Wire Site as part of the Formerly Utilized Sites Remedial Action Program (FUSRAP). The objective of the program is to identify and clean up or otherwise control sites where residual radioactive contamination remains from activities carried out under contract to the Manhattan Engineer District and AEC during the early years of the nation's atomic energy program. In December 1985, the Seymour Site was formally designated by DOE for cleanup under FUSRAP.

The Bridgeport Brass Company, later known as the Seymour Specialty Wire Company, performed operations under contract to AEC from 1962 to 1964. The contractual agreement was for the development of a process for the extrusion of natural uranium metal. The portion of the Seymour facility where the AEC work was conducted, the Rufert Building, is currently leased by the Electric Cable Company as an industrial manufacturing plant.

In 1964, AEC conducted a radiological survey of the 1.9-ha (4.8-acre) parcel of the Seymour site that includes the Rufert Building. The survey was conducted after the Bridgeport Brass Company terminated all of the AEC-related work at the Seymour site to consolidate the AEC contract work at the Bridgeport Brass facility in Ashtabula, Ohio. Although there were no AEC standards for surface contamination with which to compare the survey data at that time, the survey report states that the radionuclide concentrations observed were "...quite low and certainly are insignificant with respect to any mode of exposure that can be hypothesized."

After FUSRAP was established, review of former AEC records indicated that the Seymour Site should be resurveyed because of the lack of satisfactory protective release criteria at the time of the first survey. At the request of DOE, the Oak Ridge National Laboratory (ORNL) Health and Safety Research Division conducted a preliminary radiological survey of the facility on January 26, 1977. This survey consisted of gamma exposure measurements at 1 m (3.3 ft.) from the floor surface, beta-gamma exposure rate measurements at 1 cm (0.4 in.) above the floor surface, and direct alpha radiation measurements taken on contact with the floor.

AB 5.7

Because of gamma radiation measurements observed during the preliminary survey, ORNL conducted a follow-up survey at the site on August 26, 1980. The purpose of the follow-up survey was to determine whether the site exceeded current DOE guidelines for residual contamination on structural surfaces. Therefore, this survey was limited to those areas of the building where the former AEC contract work had been carried out. In addition to the same types of measurements that were taken during the 1977 survey, smear samples were taken to determine the extent of transferable contamination. Smear samples taken from the bowls and traps of several floor drains yielded transferable contamination concentrations of 70 to 150 dpm/cm^2. Because of these readings and visual inspection of the drains, samples of the residue from the three drains were also collected for analysis. These samples contained uranium concentrations ranging from 2,860 to 15,600 pCi/g (the 1980 report does not indicate whether this was total uranium or uranium-238).

Both the 1977 and 1980 surveys indicated that radioactive contamination was present in the Rufert Building, primarily in the Dynapack (extrusion) area, in excess of current DOE guidelines for residual contamination on structural surfaces. As a result of these surveys, the site was designated for remediation under FUSRAP in December 1985.

ORNL conducted more extensive characterization surveys in May and June 1992 to more precisely define the locations and delineate the boundaries of the radioactive contamination identified during the initial designation surveys. The characterization surveys confirmed that the primary contaminants in the areas of the Rufert Building used to perform AEC work were uranium-238 and its decay products. The contamination was also determined to extend throughout a much greater portion of the first floor of the building than originally thought. In addition, near-surface walkover gamma radiation surveys were conducted on exterior areas. Two small isolated areas were determined to be contaminated with residual uranium.

Based on data collected and evaluated during the characterization activities, an expedited removal action was conducted at the Seymour Site in 1992 and 1993.

Based on a review of all documents related to the subject property, we have concluded that the site should be certified to be in compliance with the criteria and standards that were established to be in accordance with DOE guidelines and orders, to be consistent with other appropriate Nuclear Regulatory Commission and Environmental Protection Agency guidelines, and to protect the public health and environment.

The Office of Eastern Area Programs, Off-Site/Savannah River Program Division is preparing the certification docket for the subject property. The Federal Register notice will be part of the docket.

I recommend that you sign the attached Federal Register notice. This office will notify interested State and local agencies, the public, local land offices, and the property owner of the certification actions by

correspondence and local newspaper announcements, as appropriate. The documents transmitted with the certification statement and the Federal Register notice will be compiled in final docket form by the Office of Eastern Area Programs, Off-Site/Savannah River Program Division for retention in accordance with DOE Order 1324.2 (Disposal Schedule 25).

for William E. Murphie
Acting Director
Office of Eastern Area Programs
Office of Environmental Restoration

Attachment

cc:
J. Kopotic, OR

[6450-01-P]

DEPARTMENT OF ENERGY

Certification of the Radiological Condition of the Seymour Specialty Wire Site, Seymour, Connecticut, 1992-1993

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

ACTION: Notice of Certification

SUMMARY: DOE has completed remedial action to decontaminate the process building at the Seymour Specialty Wire Site in Seymour, Connecticut. The property was found to contain quantities of radioactive material from work performed for the Atomic Energy Commission. Post-remedial action radiological surveys show that the site now meets current guidelines for use without radiological restrictions. This notice announces the availability of the certification docket for remedial action taken at the site.

ADDRESSES: Copies of the docket may be inspected at:
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
P.O. Box 2001
Oak Ridge, Tennessee 37831

FOR FURTHER INFORMATION CONTACT:

James W. Wagoner II, Director
Off-Site/Savannah River Program Division
Office of Eastern Area Programs (EM-421)
Office of Environmental Restoration
U.S. Department of Energy
Washington, D.C. 20585
(301) 427-1721 Fax: (301) 427-1907

SUPPLEMENTARY INFORMATION:

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

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

STATEMENT OF CERTIFICATION: SEYMOUR SPECIALTY WIRE SITE

FORMER AEC OPERATIONS

DOE, Oak Ridge Operations Office, Former Sites Restoration Division, has reviewed and analyzed the radiological data obtained following remedial action at the Seymour Specialty Wire site (Town of Seymour, Volume 135, pages 430-437). Post-remedial action radiological surveys show that the site now meets current guidelines for use without radiological restrictions. Based on analysis of all data collected, DOE certifies that any residual contamination which remains on site falls within current guidelines for use without radiological restrictions. This certification of compliance also provides assurance that reasonably foreseeable future use of the property 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 Seymour Specialty Wire Company:

15 Franklin Street
Seymour, Connecticut 06482

Issued in Washington, D.C., on JAN 19 1995, 1995.

John E. Baublitz
Acting Deputy Assistant Secretary
for Environmental Restoration

125197

STATEMENT OF CERTIFICATION: SEYMOUR SPECIALTY WIRE SITE FORMER AEC OPERATIONS

DOE, Oak Ridge Operations Office, Former Sites Restoration Division, has reviewed and analyzed the radiological data obtained following remedial action at the Seymour Specialty Wire site (Town of Seymour, Volume 135, pages 430-437). Postremedial action radiological surveys show that the site now meets current guidelines for use without radiological restrictions. Based on analysis of all data collected, DOE certifies that any residual contamination which remains onsite falls within current guidelines for use without radiological restrictions. This certification of compliance also provides assurance that reasonably foreseeable future use of the property 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 Seymour Specialty Wire Company:

15 Franklin Street
Seymour, Connecticut 06483

By: Lester K. Price Date: 12/21/94

JDK

Lester 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 SEYMOUR SPECIALTY WIRE SITE IN SEYMOUR, CONNECTICUT, 1992-1993

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

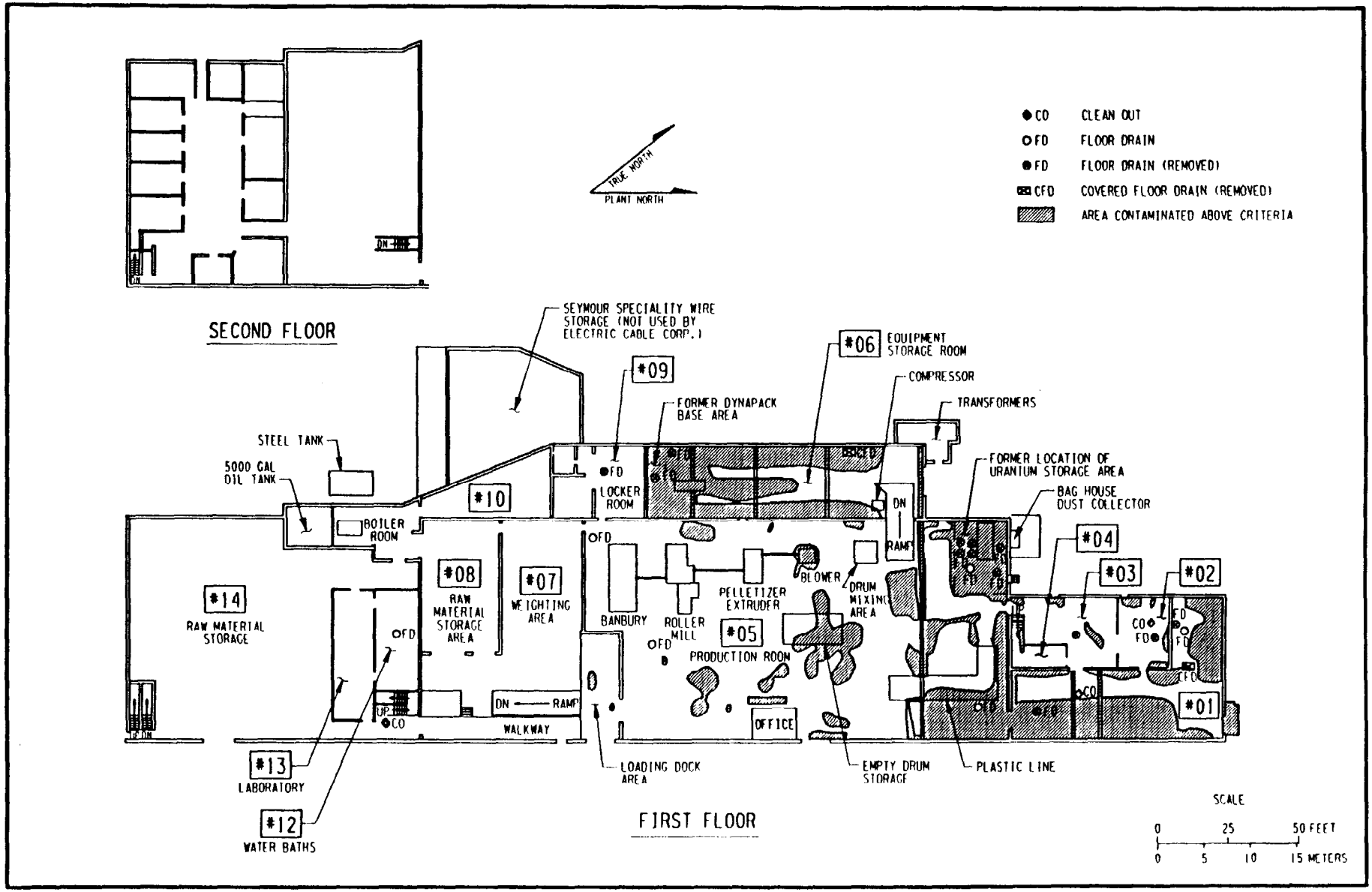

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Figure III-1
Location of Contamination in the Rufert Building

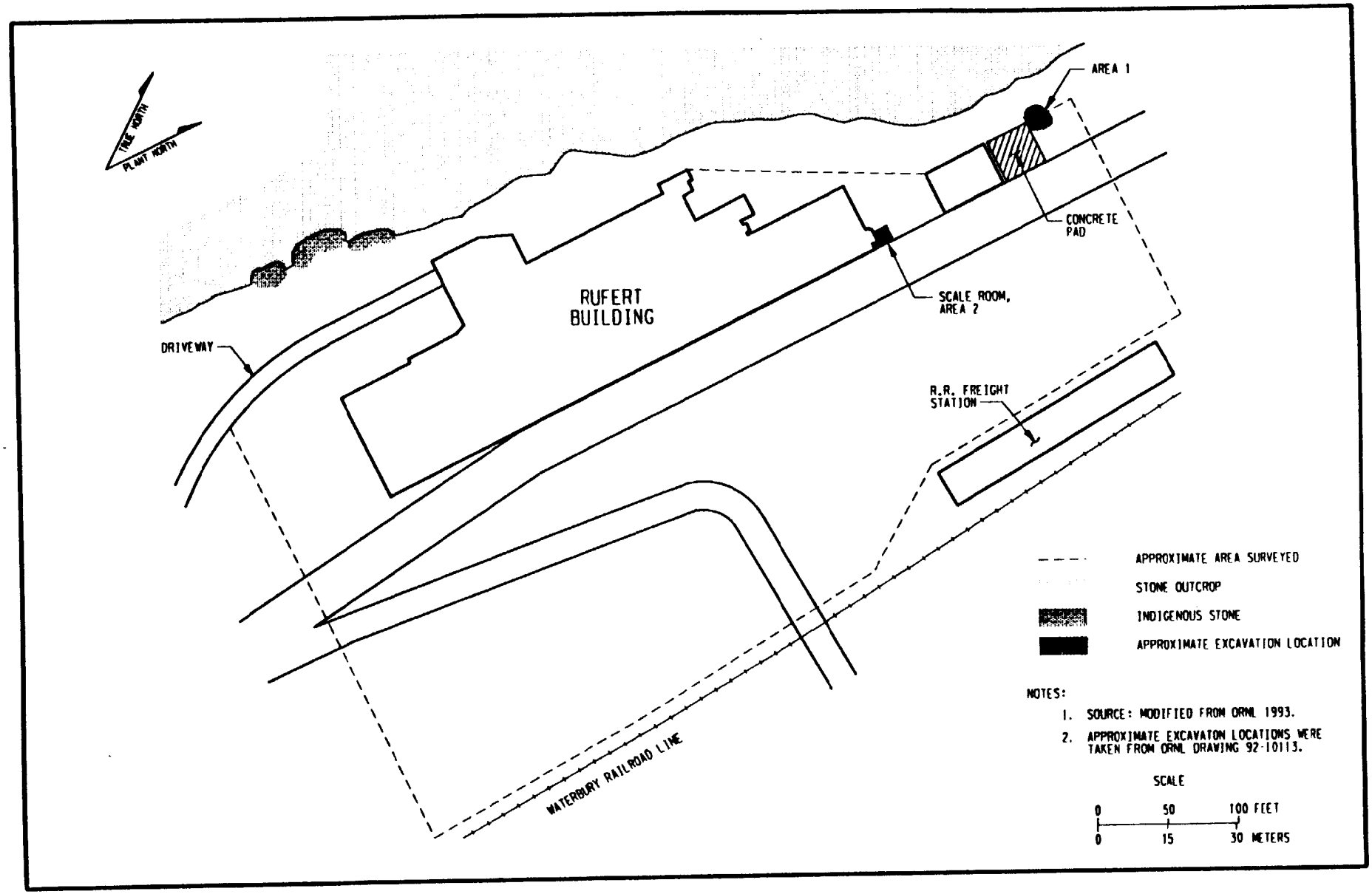

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Figure III-2
Locations of Exterior Radioactively Contaminated Areas