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*Certification Docket for the
Remedial Action Performed at the
Colonie Interim Storage Site Vicinity
Properties in Colonie and Albany,
New York, in 1988*

*Department of Energy
Technical Services Division
Oak Ridge Operations Office*

July 1990

CERTIFICATION DOCKET FOR THE REMEDIAL ACTION
PERFORMED AT THE COLONIE INTERIM STORAGE SITE
VICINITY PROPERTIES IN COLONIE AND ALBANY,
NEW YORK, IN 1988

JULY 1990

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By

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ABBREVIATIONS

cm	centimeter
cm ²	square centimeter
dpm	disintegrations per minute
ft	foot
h	hour
ha	hectare
m ²	square meter
μCi/ml	microcuries per milliliter
mg/cm ²	milligrams per square centimeter
mrad/h	millirad per hour
mrem	millirem
mrem/yr	millirem per year
pCi/g	picocuries per gram
WL	working level

ACRONYMS

AEC	Atomic Energy Commission
ANL	Argonne National Laboratory
BNI	Bechtel National, Inc.
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CISS	Colonie Interim Storage Site
DOE	Department of Energy
EE/CA	engineering analysis/cost assessment
EPA	Environmental Protection Agency
FIDLER	field instrument for detecting low-energy radiation
FY	fiscal year
FUSRAP	Formerly Utilized Sites Remedial Action Program
IVC	independent verification contractor
MED	Manhattan Engineer District
NEPA	National Environmental Policy Act
NL	National Lead Industries
ORAU	Oak Ridge Associated Universities
ORNL	Oak Ridge National Laboratory
ORO	Oak Ridge Operations Office
PMC	project management contractor
QAPP	quality assurance program plan
SARA	Superfund Amendments and Reauthorization Act
TLD	thermoluminescent dosimeter
TMA/E	Thermo Analytical/Eberline

INTRODUCTION

Description of the Formerly Utilized Sites Remedial Action Program at Colonie and Albany, New York

The U.S. Department of Energy (DOE), Office of Environmental Restoration and Waste Management, Decontamination and Decommissioning Division (and/or the predecessor agencies, offices, and divisions) has implemented a remedial action project in Colonie and Albany, New York. The 1984 Energy and Water Development Appropriations Act authorized DOE to conduct a decontamination research and development project at four sites in New York, New Jersey, and Missouri, including the site of the former National Lead (NL) Industries plant and its vicinity properties in Colonie and Albany, New York. The act was reauthorized in 1985. The work is being administered by the Formerly Utilized Sites Remedial Action Program (FUSRAP), a remedial action program under the direction of the Decontamination and Decommissioning Division.

The United States Congress authorized DOE to initiate FUSRAP in 1974 to identify and clean up or otherwise control sites where 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 mandated DOE to remedy. The objectives of FUSRAP are to:

- o Identify and assess all sites formerly utilized to support early Manhattan Engineer District/Atomic Energy Commission (MED/AEC) nuclear work to determine whether further decontamination and/or control is needed
- o Decontaminate and/or apply controls to these sites to permit conformance with current and applicable guidelines
- o Dispose of and/or stabilize all generated residues in an environmentally acceptable manner
- o 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

- o Certify, at the completion of remedial action, that the radiological conditions of the sites comply with guidelines and that the sites are appropriate for future use

FUSRAP is currently being managed by the DOE Oak Ridge Operations Office (ORO). As the project management contractor (PMC) for FUSRAP, Bechtel National, Inc. (BNI) is the DOE contractor for planning, managing, and implementing FUSRAP.

Environmental Regulations for 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 those procedural provisions of the National Environmental Policy Act (NEPA) that are mandatory under the law. CEQ issued regulations containing guidance and specific requirements in June 1979. The DOE guidelines for implementing the NEPA process and satisfying the CEQ regulations were made effective on March 28, 1980.

The NEPA process required FUSRAP decision-makers to identify and assess the environmental consequences of proposed actions before beginning remedial action activities, developing disposal sites, or transporting and emplacing radioactive wastes. After the enactment of the Superfund Amendments and Reauthorization Act (SARA), which amended the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), DOE established a policy to integrate the requirements of CERCLA and NEPA because both had similar requirements.

Documentation required by NEPA and CERCLA to support remedial action is prepared by Argonne National Laboratory (ANL). Supporting documentation is provided to ANL by the FUSRAP PMC through the preparation of a series of engineering studies of the remedial action under consideration for a site. The remedial action alternative selected by DOE based on the evaluation of NEPA and CERCLA processes is subsequently implemented with consideration for

public safety and in compliance with applicable federal, state, and local requirements.

For the remedial action activities discussed in this certification docket, the NEPA and CERCLA requirements were satisfied by the issuance of an approval memorandum to conduct an engineering evaluation/cost analysis (EE/CA), the subsequent preparation of the EE/CA, and the issuance of a memorandum to file documenting that the remedial action planned had no significant impact on the environment.

Work performed under FUSRAP is governed by the provisions of the DOE quality assurance program plan (QAPP) developed for the project in compliance with DOE Order 5700.6. Work performed under FUSRAP by the PMC or by architect-engineers, construction and service subcontractors, and other project subcontractors is governed by the QAPP. The effectiveness of implementation of the QAPP is appraised on a regular basis by the BNI quality assurance organization and by DOE-ORO.

Property Identification

Fifty-five vicinity properties at Colonie have been designated as needing remedial action under FUSRAP. One additional property is suspected to be contaminated but has yet to be formally surveyed and designated. This brings the total number of vicinity properties to 56. Thirty-five of these properties were remediated in 1984 and 1985 and were included in a certification docket published in July 1989. The Federal Register notice for the certification of these properties was signed on July 13, 1989. Eighteen properties remediated in 1988 are certified in this docket. The remaining three vicinity properties border the site and will be remediated when remedial action is conducted at CISS.

On February 20, 1990, DOE certified that the 18 vicinity properties are in compliance with applicable DOE standards and criteria developed to protect health, safety, and the environment. A notice of certification was published in the Federal Register on June 11, 1990.

The 18 properties are listed below by their street addresses, as identified in the radiological survey reports prepared by Oak Ridge National Laboratory (ORNL). More detailed descriptions of the 18 properties are provided in Section 3.0 of Exhibit I, and plan view drawings are provided on pages III-2 through III-20. The numbers in parentheses are internal DOE designators for each property. The designators are included for cross-referencing with memoranda.

Exit 4, I-90 Right-of-Way	10/14 Kraft Avenue (AL148)
Property (AL212)	4 Maplewood Avenue (AL143)
1101 Central Avenue (AL084)	Niagara-Mohawk Property,
1110 Central Avenue (AL215)	Railroad Avenue (AL218)
1143 Central Avenue (AL098)	10 N. Elmhurst Avenue (AL068)
1145 Central Avenue (AL100)	Crannell Property,
1149 Central Avenue (AL102)	Railroad Avenue (AL217)
1177 Central Avenue (AL130)	1 Reynolds Avenue (AL033)
1178 Central Avenue (AL105)	16 Yardboro Avenue (AL137)
1200 Central Avenue (AL106)	20 Yardboro Avenue (AL136)
	80-110 Yardboro Avenue (AL151)

Docket Contents

The purpose of this docket is to document the successful decontamination of the 18 vicinity properties remediated in 1988. Material in this docket consists of documents supporting DOE certification that conditions at the subject properties are in compliance with radiological guidelines and standards determined to apply to these properties. Furthermore, the use of these properties will not result in any measurable radiological hazard to the general public that is attributable to the activities of DOE or its predecessor agencies.

Exhibit I is a summary of remedial action activities conducted at the 18 vicinity properties. The exhibit provides a brief history of the origin of the contamination at the NL plant and vicinity

properties, the radiological characterizations conducted, the remedial action performed, and post-remedial action/verification activities. Cost data covering all remedial action conducted at these 18 vicinity properties are also included in Exhibit I. Appendix A to Exhibit I contains the applicable remedial action guidelines.

Exhibit II consists of the letters, memos, reports, and other documents that were produced to encompass the entire remedial action process, from designation of the site under FUSRAP to the certification that no radiologically based restrictions limit the future use of the 18 vicinity properties. Documents that are brief are included in Exhibit II. Lengthy documents are incorporated by reference only; the actual documents are provided as an attachment to the certification docket at publication.

Exhibit III provides diagrams of the properties addressed in this certification docket. The diagrams illustrate the areas of contamination that were remediated during the cleanup activities.

The certification docket will be archived by DOE through the Assistant Secretary for Management and Administration after certification of the properties. 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, S.W., Washington, D.C. Copies will also be available in the DOE Public Document Room at the Oak Ridge Operations Office in Oak Ridge, Tennessee, and in the Colonie Library, 629 Albany-Shaker Road, Loudonville, New York.

Exhibit I *Summary of Remedial Action Activities*

EXHIBIT I

SUMMARY OF REMEDIAL ACTION ACTIVITIES

1.0 INTRODUCTION

Exhibit I summarizes the activities culminating in the certification that radiological conditions at the 18 properties discussed in this docket are in compliance with applicable guidelines and that future use of the properties will result in no radiological exposure above Department of Energy (DOE) criteria and standards established to protect members of the general public and occupants of the site. These activities were conducted under the Formerly Utilized Sites Remedial Action Program (FUSRAP) (Ref. 1). This summary includes a discussion of the remedial action process at these 18 properties: the characterization of their radiological status, their designation as requiring remedial action, the remedial action performed, and verification that the radioactivity has been removed. Further detail on each activity can be found in the referenced documents.

The properties addressed in this docket include Exit 4, I-90 Right-of-Way and residential and commercial properties in the City of Albany, New York (on Central and Yardboro avenues) and in the Town of Colonie, New York (on Central, N. Elmhurst, Reynolds, Kraft, Maplewood, and Railroad avenues). Figure I-1 shows the locations of these properties.

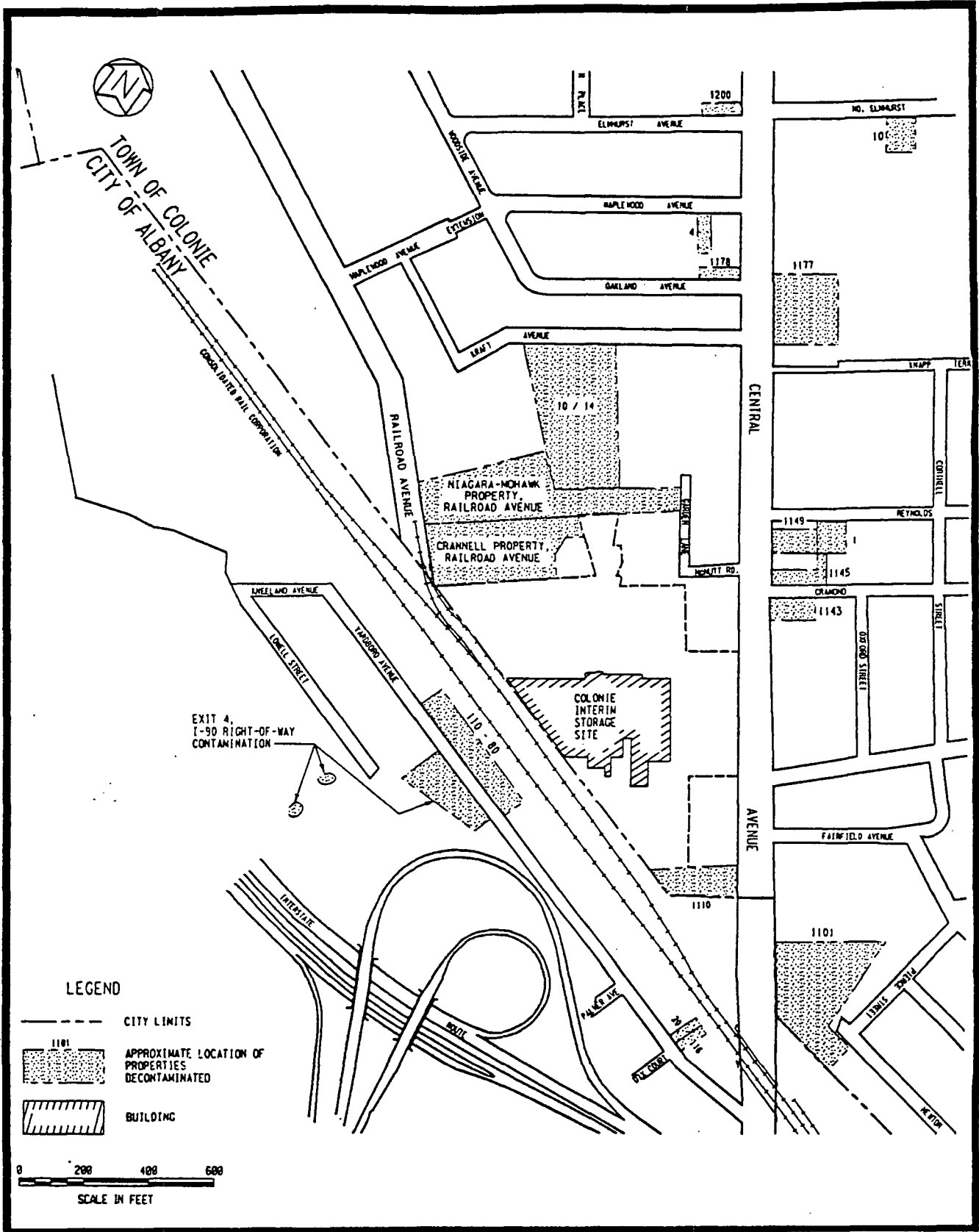


FIGURE I-1 COLONIE VICINITY PROPERTIES REMEDIATED IN 1988

2.0 SITE HISTORY

During the 1950s, National Lead (NL) Industries began manufacturing uranium products at its Colonie plant, operating under a license issued by the Atomic Energy Commission (AEC). Between 1958 and 1968, NL held numerous contracts for the fabrication of slightly enriched (in the uranium-235 isotope) uranium fuel elements and chemical processing of nonirradiated, slightly enriched uranium scrap.

After termination of the AEC contracts, work at the NL plant was limited to the fabrication of shielding components, ballast weights, and projectiles from depleted uranium.

On February 15, 1980, the New York State Supreme Court issued an order temporarily restraining NL from operating its Colonie facility on the grounds that the facility emitted contaminants as airborne releases of uranium compounds. The temporary restraining order was amended on May 12, 1980, to allow NL to continue operating on a limited basis. The amended order also required the company to initiate an independent investigation to assess all adverse environmental conditions in soils and on properties in the vicinity of the facility that may have been caused by the airborne discharge of radioactive particulates from the plant (Ref. 2). Operations at the plant were halted in the spring of 1984.

In 1984, Congress passed the 1984 Energy and Water Development Appropriations Act, which authorized DOE to conduct a decontamination research and development project at four sites in New York, New Jersey, and Missouri, including the site of the former NL Industries plant and its vicinity properties. The act was reauthorized in 1985. DOE took possession of the plant in 1984 to begin the cleanup process. Colonie Interim Storage Site (CISS) was developed by DOE on the NL site located in the Town of Colonie, New York, at 1130 Central Avenue.

Beginning in October 1983, Oak Ridge National Laboratory (ORNL) began performing more detailed surveys of the individual properties surrounding the NL plant (Refs. 3 through 20), which included residential and commercial properties. Fifty-three vicinity properties were identified as containing elevated levels of radioactive contamination and were designated for remedial action. Remedial action was conducted at 11 of these vicinity properties during 1984 and at 24 in 1985. A separate certification docket was published for those properties in July 1989. The Federal Register notice was signed on July 13, 1989. In 1988, remedial action was conducted at 16 of the 18 remaining properties; however, during the 1988 remedial action, two additional properties (4 Maplewood Avenue and 16 Yardboro Avenue) were identified as being contaminated and were subsequently designated and remediated. This brings the total number of designated vicinity properties to 55 and the total number remediated in 1988 and certified in this docket to 18. Additionally, one other property is suspected to be contaminated but has not yet been surveyed or designated. The remaining three properties border the site and will be remediated when remedial action is conducted at CISS.

CISS is approximately 6.44 km (4 mi) northwest of downtown Albany and about 4.83 km (3 mi) southeast of the Village of Colonie. Central Avenue runs along the northeastern side of the CISS property; the Conrail main line and a railroad siding border it on the southern side. Residential properties lie beyond the railroad. Most of the 4.53-ha (11.2-acre) CISS is occupied by the former NL Industries property and buildings formerly used to manufacture a variety of products from depleted uranium. The remaining 0.81 ha (2 acres) of the site, donated to DOE by the Niagara-Mohawk Power Corporation in 1985, lie to the west of the original property. Land use in the vicinity of CISS is primarily commercial and residential. Most of the radioactive contamination on the vicinity properties is from airborne releases of uranium compounds from the processing operations at the plant.

3.0 SITE DESCRIPTION

The 18 properties discussed in this report are listed by street address below. Remedial action was performed on four properties located just south of the NL building along Yardboro Avenue within the limits of the City of Albany, New York. Fourteen other properties surround the NL building along Central, Railroad, Kraft, Maplewood, N. Elmhurst, and Reynolds avenues within the limits of the Town of Colonie. Of these properties, seven are commercial, three are vacant lots, six are residential, and two are residential/commercial. These properties are:

Exit 4, I-90 Right-of-Way Property, City of Albany, described in Right-of-Way, maps M417, page 484; M416, page 483; M415, page 482; M414, page 481; M414, page 480; M449, page 519; M423, page 490; and M-1-C, page 587.

1101 Central Avenue, Town of Colonie, described in the deed, book 634, page 304 and book 614, page 112.

1110 Central Avenue, City of Albany, described in the deed, liber 1170, page 430 in the Town of Colonie and liber 1170, page 395 in the City of Albany.

1143 Central Avenue, Town of Colonie, described in the deed, liber 2318, page 515.

1145 Central Avenue, Town of Colonie, described in the deed, liber 2165, page 353.

1149 Central Avenue, Town of Colonie, described in the deed, liber 1965, page 339.

1177 Central Avenue, Town of Colonie, described in the deed, book 1870, pages 231-233 and book 994, page 408.

1178 Central Avenue, Town of Colonie, described in the deed, book 1240, page 455.

1200 Central Avenue, Town of Colonie, described in the deed, liber 2241, page 637 and liber 1387, page 355.

10/14 Kraft Avenue, Town of Colonie, described in the deed, liber 2323, page 1.

4 Maplewood Avenue, Town of Colonie, described in the deed, liber 2080, page 305.

Niagara-Mohawk Property, Railroad Avenue, Town of Colonie, described in the deed, book 915, page 251.

10 N. Elmhurst Avenue, Town of Colonie, described in the deed, book 2185, page 1001.

Crannell Property, Railroad Avenue, Town of Colonie, described in the deed, liber 2107, page 617.

1 Reynolds Avenue, Town of Colonie, described in the deed, book 2314, page 164.

16 Yardboro Avenue, City of Albany, described in the deed, liber 2205, page 256.

20 Yardboro Avenue, City of Albany, described in the deed, liber 1488, page 213.

80-110 Yardboro Avenue, City of Albany, described in the deed, liber 2037, page 991 and liber 2302, page 361.

4.0 RADIOLOGICAL HISTORY AND STATUS

4.1 RADIOLOGICAL SURVEYS

In 1980, Teledyne Isotopes was contracted by NL to perform a radiological survey of the facility and its vicinity (Ref. 2); results indicated measurable deposition of radioactive contaminants on properties primarily to the northwest and southeast of the plant (i.e., in the directions of prevailing winds).

In October 1983, ORNL, at the direction of DOE, began performing more detailed radiological surveys that were intended to locate all properties on which uranium contamination exceeded DOE remedial action guidelines (Refs. 3 through 20). Bechtel National, Inc. (BNI) and its radiological support subcontractor, Eberline Analytical Corporation, now known as Thermo Analytical/Eberline (TMA/E), surveyed the properties again for DOE at the time of remedial action to more accurately define the boundaries of contamination.

Based on the ORNL surveys, 53 vicinity properties were identified as containing elevated levels of radioactive contamination. Remedial action was conducted at 11 of these vicinity properties during 1984 and at 24 in 1985. In 1988, remedial action was conducted at 16 of the 18 remaining properties; however, during the 1988 remedial action, two additional residential properties (4 Maplewood Avenue and 16 Yardboro Avenue) were identified as being contaminated and were subsequently designated and remediated (Refs. 3 through 25). This brings the total number of designated vicinity properties to 55 and the total number remediated in 1988 to 18. Additionally, one other property is suspected to be contaminated but has not yet been surveyed or designated. The remaining three properties border the site and will be remediated when remedial action is conducted at CISS.

4.2 REMEDIAL ACTION GUIDELINES

The radiological guidelines determined by DOE to be applicable to cleanup of radioactive materials at CISS and the surrounding vicinity properties are summarized below.

These site-specific guidelines were developed by DOE and New York State officials and were reviewed by the U.S. Environmental Protection Agency (EPA).

The site-specific remedial action guidelines for the Colonie vicinity properties are:

- o Soil contaminated with depleted uranium will be removed if concentrations exceed 35 pCi/g when averaged over the top 5 cm (2 in.) of soil and a 100-m² (1076-ft²) area.
- o Soil contaminated with depleted uranium will be removed if concentrations exceed 100 pCi/g averaged over the top 5 cm (2 in.) of soil and 1-m² (10.76-ft²) area.
- o At depths greater than 5 cm (2 in.), the criteria are numerically the same; however, concentrations will be averaged over a 15-cm (6-in.) depth.
- o For contamination of surfaces such as roofs and asphalt, remedial action will be conducted if the beta-gamma measurement averaged over 1 m² (10.76 ft²) exceeds 0.2 mrad/h, or if the maximum exposure rate in any 100-cm² (15.5-in²) area exceeds 1.0 mrad/h.

The guidelines also allow for some flexibility through the use of supplemental standards that may be used for areas where the standard guidelines are not appropriate. If review, on a case-by-case basis, determines that the area meets the DOE basic whole-body dose limit of 100 mrem/yr, the area may still be released for use without radiological restrictions.

Supplemental limits for the carport roof at 1101 Central Avenue were determined to be applicable. A hazard assessment was performed to demonstrate that the annual dose limit of 100 mrem/yr was not exceeded at the property (Ref. 26). The maximum calculated

potential total dose was only 0.4 mrem/yr, or approximately 0.4 percent of the DOE basic dose limit.

Table I-1 summarizes the DOE remedial action guidelines for surface contamination; the complete guidelines are provided in Appendix A. The document containing FUSRAP design criteria also contains additional information regarding federal regulations (Ref. 27).

4.3 POST-REMEDIAL ACTION STATUS

As shown in the post-remedial action report for the subject properties (Ref. 28), the samples collected after removal of the radioactive soil show that no area of 100 m² (1076 ft²) exceeds the remedial action guideline of 35 pCi/g for depleted uranium. The guideline of 35 pCi/g for depleted uranium was agreed upon by the State of New York and DOE. Additionally, all remediated surfaces meet DOE guidelines or supplemental standards. The remedial action activities performed on the properties discussed in this report have been independently reviewed by the Oak Ridge Associated Universities (ORAU) Radiological Site Assessment Program. The purpose of this review was to verify the 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, these properties conform to all applicable radiological guidelines established for release of these properties. ORAU also reviewed those properties surveyed by ORNL but not subsequently designated for remedial action to ensure the accuracy of the designation decisions (Refs. 29 through 31).

TABLE I-1
REMEDIAL ACTION GUIDELINES FOR STRUCTURE SURFACES

Indoor/Outdoor Structure Surface Contamination

<u>Radionuclide^b</u>	<u>Allowable Surface Residual Contamination^a</u> (dpm/100 cm ²)		
	<u>Average^{c,d}</u>	<u>Maximum^{c,e}</u>	<u>Removable^{c,f}</u>
Transuranics, Ra-226, Ra-228, Th-230, Th-228, Pa-231, Ac-227, I-125, I-129	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	5,000 β - γ	15,000 β - γ	1,000 β - γ

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

^bWhere surface contamination by both alpha- and beta-gamma-emitting radionuclides exists, the limits established for alpha- and beta-gamma-emitting radionuclides shall apply independently.

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

^dThe average and maximum radiation levels associated with surface contamination resulting from beta-gamma emitters should not exceed 0.2 mrad/h at 1 cm and 1.0 mrad/h at 1 cm respectively, measured through not more than 7 mg/cm² of total absorber.

^eThe maximum contamination level applies to an area of not more than 100 cm².

^fThe amount of removable radioactive material per 100 cm² of surface area should be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and 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 cm² is determined, the activity per unit area should be based on the actual area and the entire surface should be wiped. The numbers in this column are maximum amounts.

5.0 SUMMARY OF REMEDIAL ACTION

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

5.1 PRE-REMEDIAL ACTION ACTIVITIES

Based on the ORNL survey results (Refs. 3 through 20), DOE designated for remedial action (Refs. 21 through 25) those properties that contained radionuclide concentrations exceeding applicable guidelines. To determine the appropriate actions to take to correct the contamination on these properties, DOE directed ANL to perform an engineering evaluation/cost analysis (EE/CA). The EE/CA concluded that removal with interim storage at CISS was the best approach (Ref. 32). DOE determined this action would have no adverse environmental impact (Ref. 33).

BNI began engineering design work and with its radiological support subcontractor, TMA/E, surveyed the properties to more accurately define the boundaries of contamination.

Before BNI performed remedial action, access agreements were obtained from individual property owners to allow authorized entry to the property and grant permission to do the work. The agreements granted DOE and its contractors the right to perform the remedial action. They also stated the scope of work, DOE responsibilities, and the plan to restore the properties to an "as was" condition. Concurrently, BNI continued engineering design work and related activities to hire local subcontractors to perform the cleanup work.

5.2 REMEDIAL ACTION ACTIVITIES

After the access agreements were obtained, the design work completed, and a subcontract awarded, the local subcontractor began excavation. Drawings showing the extent of the contamination in the soil on each property were then given to the excavation subcontractor. The subcontractor removed the soil as indicated on

the drawings and transported it to the former NL plant, where it is being stored until final disposition is determined.

The uranium released while the plant was operating was insoluble and deposited in the top few inches of the soil. For most excavations, less than 7.62 cm (3 in.) of soil was removed. In a few cases, excavation was slightly deeper because the uranium had washed deeper into the soil around roots of trees and shrubs. During excavation, the subcontractor was required to keep all areas free from dust and to avoid spilling the contaminated soil onto any clean areas.

Removal of some material other than soil was also required to comply with applicable guidelines. Methods used to remove this contamination included cleaning and acid washing. The diagrams in Exhibit III indicate the remedial action areas at each of the properties.

Excavated material was placed in lined dump trucks and covered to prevent the spread of contamination to work areas and haul routes while en route to CISS. The trucks used to transport the radioactive material were surveyed for radioactive contamination after they deposited each load of contaminated material. The trucks were decontaminated as necessary before being permitted on any public road. This procedure ensured that no contamination was deposited onto roads or the properties.

After the radioactively contaminated materials were removed, the properties were restored according to the conditions of the access agreements. This included backfilling the excavated areas with clean fill material. If shrubbery or trees were removed during the remedial action, they were replaced or other arrangements were made with the individual property owners. In some cases, removing the contamination necessitated alterations to buildings, fences, or pavement. When this occurred, the affected structures were restored.

Air sampling was performed to demonstrate compliance with DOE standards for airborne radioactivity. Samples were collected by pulling large quantities of air through a filter. Airborne dust, which could potentially contain radioactive material, was captured by the filter. The filters were then removed and analyzed for radioactivity. Because the amount of air drawn through the filter was known, the concentration of radioactivity in the air could be calculated.

Air monitoring showed that airborne uranium concentrations were below DOE radiation protection guidelines for members of the general public. To monitor that the DOE guidelines were not exceeded, 58 measurements were taken; the results ranged from 0.0007×10^{-12} to 0.8×10^{-12} $\mu\text{Ci/ml}$. The DOE standard is 5×10^{-12} $\mu\text{Ci/ml}$.

Personnel trained in radiation protection observed all operations to ensure that established health and safety procedures were followed. These procedures were designed to minimize the exposure of workers and residents.

In addition to the surveys performed on behalf of DOE, measures were taken by New York State officials to monitor remedial action activities. These measures include observing on-site operations and procedures and analyzing archived soil samples.

5.3 POST-REMEDIAL ACTION MEASUREMENTS

After the contaminated material was removed, an additional radiological survey was conducted by BNI to ensure that the properties had been adequately decontaminated (i.e., no areas that contain depleted uranium concentrations in excess of 35 pCi/g). Two techniques were used to conduct this survey. First, the excavated areas were scanned with a field instrument for detecting low-energy

radiation (FIDLER). If FIDLER readings indicated remaining contamination, more soil was removed until FIDLER readings indicated levels below 35 pCi/g. Soil samples taken after the FIDLER scan were analyzed by the TMA/E laboratory; results showed that contamination levels were below 35 pCi/g.

For those cases where surfaces other than soil required remedial action, a Geiger-Mueller beta-gamma detector was used to perform an additional survey after removal of the contaminated surface. If no additional contamination in excess of DOE guidelines was found, the surface was restored (when necessary).

5.4 VERIFICATION ACTIVITIES

After remedial action activities were completed, an independent verification contractor (IVC) conducted a survey to verify that the properties were remediated to levels below DOE guidelines. ORAU performed the IVC survey of the 18 vicinity properties. The objective of the 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 properties.

The IVC's activities included reviewing the published radiological survey reports and the post-remedial action reports, visiting the site for a visual inspection, and performing limited radiological survey and sampling activities at 8 of the 18 properties. The surveys were conducted in accordance with a DOE-approved plan. Upon completion of the verification activities, the IVC prepared a verification report, which was then submitted to DOE (Ref. 30).

5.5 PUBLIC AND OCCUPATIONAL EXPOSURES

5.5.1 Public Exposure

The total radiological dose to the residents following remedial action on each of the vicinity properties is less than 100 mrem/yr above the background radiation level. During cleanup activities, the only increased radiological exposure to the general public would have resulted from airborne depleted uranium in dust from the excavations. To avoid this potential exposure, all removal actions were controlled to avoid the generation of any dust. This eliminated any increased exposure to the public from the cleanup activities.

5.5.2 Occupational Exposure

During the period January 1, 1988, through December 31, 1988, 40 employees working at CISS and its vicinity properties were monitored for exposure to beta-gamma radiation. Monitoring results measured by thermoluminescent dosimeters (TLDs) indicated that 32 employees (78 percent) received no measurable exposures over their entire working period. Of the eight employees who received a measurable dose, only two received a dose above 40 mrem/yr, one of whom received 100 mrem/yr. These doses were well below the annual limit of 5,000 mrem/yr for occupational workers established by DOE (Ref. 34). In fact, the highest dose received, 100 mrem/yr, is less than 2 percent of this annual limit. The data shown in Table I-2 reflect the number of employees in each dose range for the monitoring period. The average dose received by the employees during the one-year working period was approximately 8 mrem.

5.6 COST

The final subcontract bid item quantities and the costs associated with the remedial action performed at the subject properties in 1988 are given in Table I-3.

TABLE I-2
EXPOSURE DATA FOR CISS VICINITY PROPERTIES

Number of Employees	Dose Range (mrem/yr)
32	0
2	1 to 20
2	20 to 30
2	30 to 40
1	40 to <100
1	$\geq 100^a$

^aHighest dose received was an annual dose of 100 mrem.

TABLE I-3
 REMEDIAL ACTION COSTS AT THE CISS VICINITY PROPERTIES
 DECONTAMINATED IN 1988

Description	Final Quantity	Unit Price (\$)	Final Amount (\$)
Mobilization	1s ^a	15,000.00	15,000.00
Medical exams	1s	1,500.00	987.50
OSHA training	1s	8,036.00	8,036.00
Crushed stone surfacing	15 tons	750.00	1,470.00
Stockpile cover	1,500 ft ²	2.50	5,000.00
Excavate contaminated soil 0-3 in.	3,150 yd ² (260 yd ³)	10.00	20,914.00
Excavate contaminated soil 3 in. or more	20 yd ² (3 yd ³)	50.00	2,990.00
Backfill	20 yd ² (3 yd ³)	50.00	1,015.00
Demobilization, cleanup	1s	3,000.00	3,000.00
Topsoil	260 yd ³	30.00	5,556.00
Sodding	1,000 yd ²	3.25	622.70
Asphalt surface scabbling	240 yd ²	10.00	450.00
Asphalt surfacing	240 yd ²	3.00	135.00
Seeding	2,150 yd ²	3.25	5,791.50
Labor	320 h	28.70	5,567.80
Time for medical exams	56 h	28.70	688.80
Bond	1s	2,500.00	2,500.00
		Total:	\$ 79,724.30

^aLump sum is abbreviated as "1s."

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APPENDIX A

U.S. DEPARTMENT OF ENERGY
GUIDELINES FOR RESIDUAL RADIOACTIVE MATERIAL AT
FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM
AND
REMOTE SURPLUS FACILITIES MANAGEMENT PROGRAM SITES

U.S. DEPARTMENT OF ENERGY GUIDELINES
FOR RESIDUAL RADIOACTIVE MATERIAL AT
FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM
AND
REMOTE SURPLUS FACILITIES MANAGEMENT PROGRAM SITES

(Revision 2, March 1987)

A. INTRODUCTION

This document presents U.S. Department of Energy (DOE) radiological protection guidelines for cleanup of residual radioactive materials and management of the resulting wastes and residues. It is applicable to sites identified by the Formerly Utilized Sites Remedial Action Program (FUSRAP) and remote sites identified by 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 requirements for control of the radioactive wastes and residues.

Protocols for identification, characterization, and designation of FUSRAP sites for remedial action; for implementation of the remedial action; and for certification of a FUSRAP site for release for unrestricted use are given in a separate document (U.S. Department of Energy 1986) and subsequent guidance. More detailed information on applications of the guidelines presented herein, including procedures

* A remote SFMP site is one that is excess to DOE programmatic needs and is located outside a major operating DOE research and development or production area.

for deriving site-specific guidelines for allowable levels of residual radioactive material from basic dose limits, is contained in "A Manual for Implementing Residual Radioactive Material Guidelines" (U.S. Department of Energy 1987) referred to herein as the "supplement".

"Residual radioactive material" is used in these guidelines to describe radioactive materials derived from operations or sites over which the Department of Energy has authority. Guidelines or guidance to limit the levels of radioactive material to protect the public and environment are provided for: (1) residual concentrations of radionuclides in soil material, (2) concentrations of airborne radon decay products, (3) external gamma radiation level, (4) surface contamination levels, and (5) radionuclide concentrations in air or water resulting from or associated with any of the above.

A "basic dose limit" 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 by the International Commission on Radiological Protection (ICRP 1977, 1978). The basic dose limits are used for deriving guidelines for residual concentrations of radionuclides in soil material. 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 or guidelines (U.S. Environmental Protection Agency 1983; U.S. Nuclear Regulatory Commission 1982; and Departmental Orders). Derived guidelines or limits based on the basic dose limits for those quantities are only used when the guidelines provided in the existing standards cited above are shown to be inappropriate.

A "guideline" for residual radioactive material is a level of radioactivity or of the radioactive material that is acceptable if the use of the site is to be unrestricted. Guidelines for residual radioactive material presented herein are of two kinds: (1) generic,

site-independent guidelines taken from existing radiation protection standards, and (2) site-specific guidelines derived from basic dose limits using site-specific models and data. Generic guideline values are presented in this document. Procedures and data for deriving site-specific guideline values are given in the supplement. The basis for the guidelines is generally a presumed worst case plausible scenario for a site.

An "Authorized Limit" is a level of residual radioactive material or radioactivity that must not be exceeded if the remedial action is to be considered completed and the site is to be released for unrestricted use. The Authorized Limit for a site will include limits for each radionuclide or group of radionuclides, as appropriate, associated with the residual radioactive material in the soil or in surface contamination of structures and equipment, and in the air or water, and, where appropriate, a limit on external gamma radiation resulting from the residual material. Under normal circumstances, expected to occur at most sites, Authorized Limits for residual radioactive material or radioactivity are set equal to guideline values. Exceptional conditions for which Authorized Limits might differ from guideline values are specified in Sections D and F. A site may be released for unrestricted use only if the conditions do not exceed the Authorized Limits or approved supplemental limits as defined in Section F.1 at the time remedial action is completed. Restrictions and controls on use of the site must be established and enforced if the site conditions exceed the approved limits, or if there is potential to exceed the dose limit if the site use was not restricted (Section F.2). The applicable controls and restrictions are specified in Section E.

DOE policy requires that all exposures to radiation be limited to levels that are as low as reasonably achievable (ALARA). For sites to be released for unrestricted use, the intent is to reduce residual radioactive material to levels that are as far below Authorized Limits as reasonable considering technical, economic, and social factors. At sites where the residual material is not reduced to levels that permit release for unrestricted use, ALARA policy is implemented by establishing controls to reduce exposure to levels that are as low as reasonably achievable. Procedures for implementing ALARA policy are discussed in the supplement. ALARA policies,

procedures, and actions shall be documented and filed as a permanent record upon completion of remedial action at a site.

B. BASIC DOSE LIMITS

The basic dose limit for the annual radiation dose received by an individual member of the general public is 100 mrem/year. The internal committed effective dose equivalent, as defined in ICRP Publication 26 (ICRP 1977) and calculated by dosimetry models described in ICRP Publication 30 (ICRP 1978), plus dose from penetrating radiation sources external to the body shall be used for determining the dose. This dose shall be described as the "Effective Dose Equivalent". Every effort shall be made to ensure that actual doses to the public are as far below the dose limit as is reasonably achievable.

Under unusual circumstances it will be permissible to allow potential doses to exceed 100 mrem/year where such exposures are based upon scenarios which do not persist for long periods and where the annual life time exposure to an individual from the subject residual radioactive material would be expected to be less than 100 mrem/year. Examples of such situations include conditions that might exist at a site scheduled for remediation in the near future or a possible, but improbable, one-time scenario that might occur following remedial action. These levels should represent doses that are as low as reasonably achievable for the site. Further, no annual exposure should exceed 500 mrem.

C. GUIDELINES FOR RESIDUAL RADIOACTIVE MATERIAL

C.1 Residual Radionuclides in Soil

Residual concentrations of radionuclides in soil shall be specified as above-background concentrations averaged over an area of 100 sq meters. 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

site-specific data where available. Procedures for these derivations are given in the supplement.

If the average concentration in any surface or below surface area less than or equal to 25 sq meters 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. These Hot Spot Limits depend on the extent of the elevated local concentrations and are given in the supplement. In addition, every reasonable effort shall be made to remove any source of radionuclide that exceeds 30 times the appropriate soil limit irrespective of the average concentration in the soil.

Two types of guidelines are provided, generic and derived. The generic guidelines for residual concentrations of the Ra-226, Ra-228, Th-230, and Th-232 are:

- 5 pCi/g, averaged over the first 15 cm of soil below the surface
- 15 pCi/g, averaged over 15-cm-thick layers of soil more than 15 cm below the surface

These guidelines take into account ingrowth of Ra-226 from Th-230 and of Ra-228 from Th-232, and assume secular equilibrium. If either Th-230 and Ra-226 or Th-232 and Ra-228 are both present, not in secular equilibrium, the appropriate guideline is applied as a limit to the radionuclide with 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 the ratios of the soil concentration of each radionuclide to the allowable limit for that radionuclide will not exceed 1 ("unity"). Explicit formulas for calculating residual concentration guidelines for mixtures are given in the supplement.

C.2 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 unrestricted 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 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.* 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 materials are not the cause.

C.3 External Gamma Radiation

The average level of gamma radiation inside a building or habitable structure on a site to be released for unrestricted use shall not exceed the background level by more than 20 μ R/h and shall comply with the basic dose limit when an appropriate use scenario is considered. This requirement shall not necessarily apply to structures scheduled for demolition or to buried foundations. External gamma radiation levels on open lands shall also comply with the basic dose limit considering an appropriate use scenario for the area.

C.4 Surface Contamination

The generic guidelines provided in the Table 1, Surface Contamination Guidelines are applicable to existing structures and equipment. These guidelines are adapted from standards of the U.S. Nuclear Regulatory

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

TABLE 1 SURFACE CONTAMINATION GUIDELINES

Radionuclides ²	Allowable Total Residual Surface Contamination (dpm/100 cm ²) ¹		
	Average ^{3, 4}	Maximum ^{4, 5}	Removable ^{4, 6}
Transuranics, Ra-226, Ra-228, Th-230, Th-228, Pa-231, Ac-227, I-125, I-129	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 ^a	15,000 ^a	1,000 ^a
Beta-gamma emitters (radionuclides with decay modes other than alpha emission or spontaneous fission) except Sr-90 and others noted above	5,000 ^{B-γ}	15,000 ^{B-γ}	1,000 ^{B-γ}

- 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 inpercently.
- ³ Measurements of average contamination should not be averaged over an area of more than 1 m². For objects of less surface area, the average should be derived for each such object.
- ⁴ The average and maximum dose rates associated with surface contamination resulting from beta-gamma emitters should not exceed 0.2 mrad/h and 1.0 mrad/h, respectively, at 1 cm.
- ⁵ The maximum contamination level applies to an area of not more than 100 cm².
- ⁶ The amount of removable radioactive material per 100 cm² of surface area should be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and 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 cm² is determined, the activity per unit area should be based on the actual area and the entire surface should be wiped. The numbers in this column are maximum amounts.

Commission (1982)* and will be applied in a manner that provides a level of protection consistent with the Commission's guidance. These limits apply to both interior and exterior surfaces. They are not directly intended for use on structures to be demolished or buried, but, should be applied to equipment or building components that are potentially salvageable or recoverable scrap. If a building is demolished, the guidelines in Section C.1 are applicable to the resulting contamination in the ground.

C.5 Residual Radionuclides in Air and Water

Residual concentrations of radionuclides in air and water shall be controlled to levels required by DOE Environmental Protection Guidance and Orders, specifically DOE Order 5480.1A and subsequent guidance. Other Federal and/or state standards shall apply when they are determined to be appropriate.

D. AUTHORIZED LIMITS FOR RESIDUAL RADIOACTIVE MATERIAL

The Authorized Limits shall be established to: 1) ensure that, as a minimum, the Dose Limits specified in Section B will not be exceeded under the worst case plausible use scenario consistent with the procedures and guidance provided, or 2) where applicable generic guidelines are provided, be consistent with such guidelines. The Authorized Limits for each site and vicinity properties shall be set equal to the generic or derived guidelines except where it can be clearly established on the basis of site specific data, including health, safety and socioeconomic considerations, that the guidelines are not appropriate for use at the specific site. Consideration

* These guidelines are functionally equivalent to Section 4 - Decontamination for Release for Unrestricted Use of NRC Regulatory Guide 1.86, but are applicable to Non-reactor facilities.

should also be given to ensure that the limits comply with or provide an equivalent level of protection as other appropriate limits and guidelines (i.e., state, or other Federal). Documentation supporting such a decision should be similar to that required for supplemental limits and exceptions (Section F), but should be generally more detailed because it covers an entire site.

Remedial actions shall not be considered complete unless the residual radioactive material levels comply with the Authorized Limits. The only exception to this requirement will be for those special situations where the supplemental limits or exceptions are applicable and approved as specified in Section F. However, the use of supplemental limits and exceptions should only be considered if it is clearly demonstrated that it is not reasonable to decontaminate the area to the Authorized Limit or guideline value. The Authorized Limits are developed through the project offices in the field (Oak Ridge Technical Services Division for FUSRAP) and approved by the headquarters program office (the Division of Facility and Site Decommissioning Projects).

E. CONTROL OF RESIDUAL RADIOACTIVE MATERIAL AT FUSRAP AND REMOTE SFMP SITES

Residual radioactive material above the guidelines at FUSRAP and remote SFMP sites must be managed in accordance with applicable DOE Orders. The DOE Order 5480.1A and subsequent guidance or superceding orders require compliance with applicable Federal, and state environmental protection standards.

The operational and control requirements specified in the following DOE Orders shall apply to interim storage, interim management, and long-term management.

- a. 5440.1C, Implementation of the National Environmental Policy Act
- b. 5480.1A, Environmental Protection, Safety, and Health Protection Program for DOE Operations as revised by DOE 5480.1 change orders and the 5 August 1985 memorandum from Vaughan to Distribution
- c. 5480.2, Hazardous and Radioactive Mixed Waste Management

- d. 5480.4, Environmental Protection, Safety, and Health Protection Standards
- e. 5462.1A, Environmental Safety, and Health Appraisal Program
- f. 5463.1A, Occupational Safety and Health Program for Government-Owned Contractor-Operated Facilities
- g. 5484.1, Environmental Protection, Safety, and Health Protection Information Reporting Requirements
- h. 5000.3, Unusual Occurrence Reporting System
- i. 5820.2, Radioactive Waste Management

E.1 Interim Storage

- a. Control and stabilization features shall be designed to ensure, to the extent reasonably achievable, an effective life of 50 years and, in any case, at least 25 years.
- b. Above-background Rn-222 concentrations in the atmosphere above facility surfaces or openings shall not exceed: (1) 100 pCi/L at any given point, (2) an annual average concentration of 30 pCi/L over the facility site, and (3) an annual average concentration of 3 pCi/L at or above any location outside the facility site (DOE Order 5480.1A, Attachment XI-1).
- c. Concentrations of radionuclides in the groundwater or quantities of residual radioactive materials shall not exceed existing Federal, or state standards.
- d. Access to a site shall be controlled and misuse of onsite material contaminated by residual radioactive material shall be prevented through appropriate administrative controls and physical barriers--active and passive controls as described by the U.S. Environmental Protection Agency (1983--p. 595). These control features should be designed to ensure, to the extent reasonable, an effective life of at least 25 years. The Federal government shall have title to the property or shall have a long-term lease for exclusive use.

E.2 Interim Management

- a. A site may be released under interim management 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 to ensure that no member of the public shall receive a radiation dose exceeding the basic dose limit.
- b. The administrative controls, as approved by DGE, shall include but not be 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 radioactivity or cause it to migrate.
- c. The owner of the site or appropriate Federal, state, or local authorities shall be responsible for enforcing the administrative controls.

E.3 Long-Term Management

Uranium, Thorium, and Their Decay Products

- a. Control and stabilization features shall be designed to ensure, to the extent reasonably achievable, an effective life of 1,000 years and, in any case, at least 200 years.
- b. Control and stabilization features shall be designed to ensure that Rn-222 emanation to the atmosphere from the waste shall not: (1) exceed an annual average release rate of 20 pCi/m²/s, and (2) increase 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 is not required.

- c. Prior to placement of any potentially biodegradable contaminated wastes in a long-term management facility, such wastes shall be properly conditioned to ensure that (1) the generation and escape of biogenic gases will not cause the requirement in paragraph b. of this section (E.3) to be exceeded, and (2) biodegradation within the facility will not result in premature structural failure in violation of the requirements in paragraph a. of this section (E.3).
- d. Groundwater shall be protected in accordance with Appropriate Departmental orders and Federal and state standards, as applicable to FUSRAP and remote SFMP sites.
- e. Access to a site should be controlled and misuse of onsite material contaminated by residual radioactive material should be prevented through appropriate administrative controls and physical barriers--active and passive controls as described by the U.S. Environmental Protection Agency (1983--p. 595). These controls should be designed to be effective to the extent reasonable for at least 200 years. The Federal government shall have title to the property.

Other Radionuclides

- f. Long-term management of other radionuclides shall be in accordance with Chapters 2, 3, and 5 of DOE Order 5820.2, as applicable.

F. SUPPLEMENTAL LIMITS AND EXCEPTIONS

If special site specific circumstances indicate that the guidelines or Authorized Limits established for a given site are not appropriate for a portion of that site or a vicinity property, then the field office may request that supplemental limits or an exception be applied. In either case, the field must justify that the subject guidelines or Authorized Limits are not appropriate and that the alternative action will provide adequate protection giving due consideration to health and safety,

environment and costs. The field office shall obtain approval for specific supplemental limits or exceptions from headquarters as specified in Section D of these guidelines and shall provide to headquarters those materials required for the justification as specified in this section and in the FUSRAP and SFMP protocols and subsequent guidance documents. The field office shall also be responsible for coordination with the state or local government of the limits or exceptions and associated restrictions as appropriate. In the case of exceptions, the field office shall also work with the state and/or local governments to insure that restrictions or conditions of release are adequate and mechanisms are in place for their enforcement.

F1. Supplemental Limits

The supplemental limits must achieve the basic dose limits set forth in this guideline document for both current and potential unrestricted uses of the site and/or vicinity property. Supplemental limits may be applied to a property or portion of a property or site if, on the basis of a site specific analysis, it is determined that certain aspects of the property or portion of the site were not considered in the development of the established Authorized Limits and associated guidelines for the site, and as a result of these unique characteristics, the established limits or guidelines either do not provide adequate protection or are unnecessarily restrictive and costly.

F2. Exceptions

Exceptions to the Authorized Limits defined for unrestricted use of the site may be applied to a portion of a site or a vicinity property when it is established that the Authorized Limits cannot be achieved and restrictions on use of the site or vicinity property are necessary to provide adequate protection of the public and environment. The field office must clearly demonstrate that the exception is necessary, and the restrictions will provide the necessary degree of protection and that they comply with the requirements for control of residual radioactive material as set forth in Part E of these guidelines.

F3. Justification for Supplemental Limits and Exceptions

Supplemental limits and exceptions must be justified by the field office on a case by case basis using site specific data. Every effort should be made to minimize the use of the supplemental limits and exceptions.

Examples of specific situations that warrant the use of supplemental standards and exceptions are:

- a. Where remedial actions would pose a clear and present risk of injury to workers or members of the general public, notwithstanding reasonable measures to avoid or reduce risk.
- b. Where remedial actions--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 sites, 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 can reasonably be anticipated.
- c. Where it is clear that the scenarios or assumptions used to establish the Authorized Limits do not under plausible current or future conditions, apply to the property or portion of the site identified and where more appropriate scenarios or assumptions indicate that other limits are applicable or necessary for protection of the public and the environment.
- d. Where the cost of remedial actions for contaminated soil is unreasonably high relative to long-term benefits and where the residual radioactive materials do not pose a clear present or future risk after taking necessary control measures. The likelihood that buildings will be erected or that people will spend long periods of time at such a site should be considered in evaluating this risk. Remedial actions will generally not be necessary where only minor quantities of residual radioactive

materials are involved or where residual radioactive materials occur in an inaccessible location at which site-specific factors limit their hazard and from which they are costly or difficult to remove. Examples are residual radioactive materials under hard-surface public roads and sidewalks, around public sewer lines, or in fence-post foundations. A site-specific analysis must be provided to establish that it would not cause an individual to receive a radiation-dose in excess of the basic dose limits stated in Section B, and a statement specifying the residual radioactive material must be included in the appropriate state and local records.

- e. Where there is no feasible remedial action.

G. SOURCES

<u>Limit or Guideline</u>	<u>Source</u>
<u>Basic Dose Limits</u>	
Dosimetry Model and Dose Limits	International Commission on Radiological Protection (1977, 1978)
<u>Generic Guidelines for Residual Radioactivity</u>	
Residual Concentrations of Radium and Thorium in Soil Material	40 CFR 192
Airborne Radon Decay Products	40 CFR 192
External Gamma Radiation	40 CFR 192
Surface Contamination	Adapted from U.S. Nuclear Regulatory Commission (1982)
<u>Control of Radioactive Wastes and Residues</u>	
Interim Storage	DOE Order 5480.1A and subsequent guidance
Long-Term Management	DOE Order 5480.1A and subsequent guidance; 40 CFR 192; DOE order 5820.2

H. REFERENCES

- International Commission on Radiological Protection, 1977. Recommendations of the International Commission on Radiological Protection (Adopted January 17, 1977). ICRP Publication 26. Pergamon Press, Oxford. [As modified by "Statement from the 1978 Stockholm Meeting of the ICRP." Annals of the ICRP, Vol. 2, No. 1, 1978.]
- International Commission on Radiological Protection, 1978. Limits for Intakes of Radionuclides by Workers. A Report of Committee 2 of the International Commission on Radiological Protection. Adopted by the Commission in July 1978. ICRP Publication 30. Part 1 (and Supplement), Part 2 (and Supplement), Part 3 (and Supplements A and B), and Index. Pergamon Press, Oxford.
- U.S. Environmental Protection Agency, 1983. Standards for Remedial Actions at Inactive Uranium Processing Sites; Final Rule (40 CFR 192). Federal Register 48(3):590-604 (January 5, 1983).
- U.S. Department of Energy, 1984. Formerly Utilized Sites Remedial Action Program. Summary Protocol: Identification - Characterization - Designation - Remedial Action - Certification. Office of Nuclear Energy, Office of Terminal Waste Disposal and Remedial Action, Division of Remedial Action Projects. April 1984.
- U.S. Department of Energy, 1987. Supplement to U.S. Department of Energy Guidelines for Residual Radioactivity at Formerly Utilized Sites Remedial Action Program and Remote Surplus Facilities Management Program Sites. A Manual for Implementing Residual Radioactivity Guidelines. Prepared by Argonne National Laboratory, Los Alamos National Laboratory, Oak Ridge National Laboratory, and Pacific Northwest Laboratory for the U.S. Department of Energy.
- U.S. Nuclear Regulatory Commission, 1982. Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material. Division of Fuel Cycle and Material Safety, Washington, D.C. July 1982.
- U.S. Atomic Energy Commission, 1974. Regulatory Guide 1.86, Termination of Operating Licenses for Nuclear Reactors, June 1974

*Exhibit II Documents Supporting the Certification of the Remedial Action
Performed at the Colonie Interim Storage Site Vicinity Properties
in Colonie and Albany, New York, in 1988*

EXHIBIT II

DOCUMENTS SUPPORTING THE CERTIFICATION OF

THE REMEDIAL ACTION PERFORMED AT THE

COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES

IN COLONIE AND ALBANY, NEW YORK, IN 1988

1.0 CERTIFICATION PROCESS

The purpose of this certification docket is to provide a consolidated and permanent record of DOE activities at the 18 vicinity properties and of the radiological conditions of these properties at the time of certification. A summary of the remedial action activities conducted at these properties was provided in Exhibit I. Exhibit II contains the letters, memos, reports, and other 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 the future use of the subject vicinity properties.

2.0 SUPPORTING DOCUMENTATION

For the convenience of the reader, Subsections 2.1 through 2.11 will be paginated continuously for the final draft of this certification docket. 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 will be designated as such with the abbreviation "ref."; the actual documents will be provided as attachments to the certification docket at publication.

2.1 DECONTAMINATION OR STABILIZATION CRITERIA

The following documents contain the guidelines that determine the need for remedial action. The subject properties have 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 documents are included in this section.

	<u>Page</u>
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. <u>Design Criteria for Formerly Utilized Sites Remedial Action Program (FUSRAP) and Surplus Facilities Management Program (SFMP)</u> , 14501-00-DC-01, Rev. 2, Oak Ridge, Tenn., March 1986.	ref.

Bechtel National, Inc. Hazard Assessment for
Radioactive Contamination on the Carport Roof at
1101 Central Avenue in Colonie, New York,
Oak Ridge, Tenn., June 1989.

ref.

Letter, E.G. DeLaney, Manager, FUSRAP/Surplus Facilities
Group, Office of Nuclear Energy, Department of Energy,
to R. Guimond, Director, Criteria and Standards Division,
Environmental Protection Agency, "Recommended Guidelines
to Clean Up Vicinity Properties in Colonie, New York,"
April 30, 1984.

II-4

Letter, P. Martinelli, Assistant Attorney General,
Department of Law, State of New York, to L. Campbell,
Deputy Director, Technical Services Division, Department
of Energy, "Task Force Response to Cleanup Criteria for
a Soil Decontamination Program in Colonie, New York,"
June 5, 1984.

II-6

Letter, E.L. Keller, Director, Technical Services
Division, Oak Ridge Operations Office, Department of
Energy, to R.L. Rudolph, Bechtel National, Inc. "Surface
Contamination Levels; Colonie Vicinity Property Remedial
Action," September 12, 1984.

II-9

Letter, E.L. Keller, Director, Technical Services Division,
Oak Ridge Operations Office, Department of Energy, to
Dr. W. Condon, New York State Task Force on Former NL
Plant, New York Department of Health. "Subsurface Soil
Sampling for Colonie Vicinity Properties,"
September 27, 1984.

II-10

APR 30 1984

Mr. Richard Guimond
Director, Criteria and Standards Division
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Mr. Guimond:

Thank you and your staff for taking the time to meet with us to review the radiological survey results, the health risk analyses, the cost estimates, and the tentative work plan for the cleanup of vicinity properties at Colonie, New York.

A revised copy of the the health risk analysis is enclosed. This revision corrects the error in averaging soil concentrations which you noted during our meeting and makes some changes to the source to dose transfer factors to make them more appropriate for the conditions at these properties. The results in Table 5 of the enclosure show that the annual dose rate at 7 of the 12 properties might exceed 10 mrem per year, but not 100 mrem per year if no cleanup is done. The DOE Order 5480.1A and guidance from the Assistant Secretary for Policy, Safety, and Environment is that the principle of reducing contamination to levels As Low As Reasonably Achievable (ALARA) should be used to reduce exposures to the range of 100 to 10 mrem/year, corresponding to an annual risk of 10^{-5} to 10^{-6} per year respectively.

Consistent with the strong application of the ALARA principle, we plan to do area cleanups for the 6 properties (52, 68, 74, 80 Yardboro; 1144, 1144A Central Avenue), and will do minor spot cleanup on 27/29 and 78 Yardboro and 33 Palmer.

We propose to cleanup soil to 35 pCi U-238 per gram of soil averaged over a 5 cm depth and an area of 10 meters by 10 meters. Any hot spot exceeding 100 pCi/g will be cleaned up. Cleanup of roofs and other surfaces, if needed, would be in accordance with NRC Regulatory Guide 1.86. However, the roof surveys show that roof cleanup is not needed and that the New York State criteria in Industrial Code Rule 38.22(2) Table 5 are not exceeded. Note that the State letter from Mr. Condon dated February 9, 1984 (enclosure 2) inaccurately quoted the surface contamination criteria in the State Code 38. The number cited for alpha (100 dpm/100 cm²) is for removable contamination. The applicable number (1000 dpm/100 cm² averaged over any one surface) is for fixed contamination, since the roofs have been exposed to weather for 4 years. The correct table is in enclosure 3.

As is stated in the draft work plan we gave you, we will use a special alpha counting technique for soil samples which we estimate will have a minimum detectable activity of 7 pCi/g.

We believe that the plan and the criteria we propose to use will provide a fully adequate cleanup to protect public health and is as low as reasonably achievable. Please provide your comments by the first week in May. We plan to meet with the State of New York officials on May 9 to discuss this work.

Sincerely,

Edward G. DeLaney, Manager
FUSRAP/Surplus Facilities Group
Division of Remedial Action Projects
Office of Nuclear Energy

3 Enclosures

bcc:
E. L. Keller, OR
L. Campbell, OR
C. Welty, PE-243
A. Whitman, NE-24
Aerospace
NE-73 (4)
NE-24 RF
DeLaney RF

NE-24:DeLaney:hsy:353-2802:04-25-84 (WP #84-347)

Correspondence Reviewer: _____

CONCURRENCES		
RTG SYMBOL	NE-24	
INITIALS/SIG.	DeLaney	
DATE	4/26/84	
RTG SYMBOL	J. EXULITE	
INITIALS/SIG.		
DATE	4/27/84	
RTG SYMBOL		
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STATE OF NEW YORK
DEPARTMENT OF LAW
ALBANY, NY 12224

ROBERT ABRAMS
Attorney General

MARCIA J. CLEVELAND
Assistant Attorney General in Charge
Environmental Protection Bureau

JAMES A. SEVTSKY
Deputy Bureau Chief
Environmental Protection Bureau

June 5, 1984

Mr. Lowell Campbell
Deputy Director
Technical Services Division
U.S. Department of Energy
P. O. Box E
Oak Ridge, Tennessee 37831

Re: Former NL Industries Site

Dear Mr. Campbell:

The State Task Force met this week to discuss the Department of Energy's latest submissions concerning the clean-up criteria for a soil decontamination program in Colonie, New York. It is the Task Force's understanding that DOE has agreed to a general clean-up criterion of 35 pCi/gm (5 cm depth) over a 10 by 10 meter soil surface and a "hot-spot" criterion of 100 pCi/gm (5 cm depth) over a 1 by 1 meter area. As the members of the Task Force have previously indicated, these clean-up criteria meet the State's regulatory requirements and are comparable to the clean-up criteria proposed in the Teledyne Isotopes remedial plan. The Task Force greatly appreciates DOE's willingness to adjust its clean-up criteria to meet the State's concerns.

Pending affirmation by EPA that the criteria are appropriate, we believe that this agreement concerning clean-up criteria should be formalized in a Memorandum of Understanding amongst DOE and the responsible State agencies. Generally, the Memorandum of Understanding should state that DOE will clean all vicinity properties to the above stated criteria (thus clarifying that the criteria is not limited to the first ten vicinity properties) and that the same criteria will also be used for on-site work. Also, the Memorandum of Understanding should contain the criteria for decontamination of both fixed and removable contamination of structures and equipment. The Memorandum of Understanding should state that all parties to it agree that the clean-up criteria are acceptable. Please contact me immediately so we can make arrangements to draft such a memorandum.

During our meeting last week, members raised certain reservations concerning the Health Risk Estimates paper, prepared by Mr. Gilbert of Argonne National Laboratory. While DOE has proposed a 35 pCi/gm criterion, the paper also attempts to justify a criterion of 112 pCi/gm. While it appears that most of the assumptions upon which the calculations are made are conservative, it is not clear that the model used is equally so. The task force questions whether DOE can provide substantiation of conservatism in all parts of its calculations. We would appreciate any documents or reports which clearly show from benchmark tests or comparison to other model calculations that the DOE model is always "conservative". Also, a sensitivity analysis of the calculational system (algorithms as well as input data) would be desirable.

Moreover, on the basis of Mr. Gilbert's calculations, DOE has selected a liberal acceptable risk criterion of 10^{-5} fatalities per year from recommendations in ICRP-26. We believe that a more appropriate risk criterion would be one in the range of 10^{-6} per lifetime (approximately 10^{-6} per year) to a maximum value of 10^{-6} per year. The value of 10^{-6} per lifetime is more consistent with criteria being used by the State for control of toxic chemicals; the value of 10^{-6} per year is taken directly from EPA's standards for lung and bone doses from uranium mill tailings.

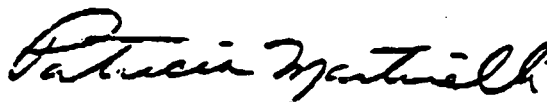
Members are also concerned that a specific work plan has not yet been submitted to the NL Task Force for review. Many detailed questions were raised, including DOE's plans to test for and remove contamination in stream sediments, to control dust and to prevent further contamination during clean-up operations. Please ensure that members of the Task Force receive copies of DOE's work plan at least two weeks prior to the onset of operations, so that there will be sufficient time for DOE to address problems raised by Task Force members.

I have also been asked to communicate to you the Town of Colonie's request that sewer connections be severed to prevent contamination of sewer lines. Please contact the Town directly to discuss this matter.

Finally, members of the Task Force, as well as concerned citizens, have strongly suggested the need for DOE to conduct a public meeting prior to initiating clean-up operations. In the interim, we believe the residents should be provided a contact person to whom they can direct their questions.

Thank you for your continued cooperation concerning this matter.

Sincerely,



PATRICIA MARTINELLI
Assistant Attorney General
(518) 474-7143

cc: Glen Sioblom



Department of Energy

Oak Ridge Operations
P. O. Box E
Oak Ridge, Tennessee 37831

22093

September 12, 1984

Mr. R. L. Rudolph
Bechtel National, Inc.
P. O. Box 350
Oak Ridge, TN 37831

Dear Mr. Rudolph:

SURFACE CONTAMINATION LEVELS; COLONIE VICINITY PROPERTY REMEDIAL ACTION

This will confirm TSD's recent guidance regarding the potential need to remove contamination contained on or in media other than soils at the Colonie Site. This inquiry has specifically been made relative to asphalt, window ledges and surfaces of large trees.

The surface contamination guides specified in DOE's latest draft criteria for FUSRAP, based on NRC Reg Guide 1.86, should be used for these situations.

Sincerely,

E. L. Keller, Director
Technical Services Division

CE-53:Alexander

cc: J. Nemeč, BNI
P. Crotwell, BNI
R. Robertson, BNI

Received by
SEP 13 1984
FUSRAP PDCC



22565

Department of Energy

Oak Ridge Operations

P. O. Box E

Oak Ridge, Tennessee 37831

September 27, 1984

Dr. W. Condon
New York State Task Force
on Former NL Plant
New York Department of Health
Tower Building
Albany, New York 12237

Dear Dr. Condon:

SUBSURFACE SOIL SAMPLING FOR COLONIE VICINITY PROPERTIES

As remedial action work has progressed at the Colonie vicinity properties, field measurements and subsurface soil data (soil beneath the top five centimeters) have indicated a more uniform distribution of uranium in subsurface soil at some locations than was originally expected. For such locations, the 35 pCi/g criterion will be applied to subsurface volumes sampled over a 15 cm depth, as is our normal procedure, rather than to three or more successive five centimeter layers. This approach will not affect the agreed upon procedure for surface soil, which will continue to be sampled to a depth of 5 centimeters.

DOE has also been advised of several situations involving measurable fixed surface contamination on asphalt paved areas, window ledges and small ledge areas of some larger trees. For such locations, the surface contamination criteria that has been agreed to in earlier discussions on fixed contamination on roofs will be applied.

Please contact Jake Alexander of my staff if you have questions on these matters, area code 615, 576-4451.

Sincerely,

E. L. Keller, Director
Technical Services Division

CE-53:Alexander

cc: P. Martinelli, NY Dept. of Law
S. Lukowski, Albany Co Health Dept.
J. Matusyek, NY Dept. of Health
K. Rimawi, NY Dept. of Health
P. Merges, NY Dept. of Env. Cons.
R. Forgea, NYDEC, Schnectady

Received by

SEP 27 1984

FUSRAP PDCC

II-10

T Nomer RNI

2.2 DESIGNATION OR AUTHORIZATION DOCUMENTATION

The following documents designated or authorized the remedial action at the 18 vicinity properties. A copy of each follows.

	<u>Page</u>
Letter, J.E. Baublitz, Director, Division of Remedial Action Projects, Office of Terminal Waste Disposal and Remedial Action, Office of Nuclear Energy, Department of Energy, to J.H. Jeram. "Authorization to Conduct Remedial Action" [including 1 Reynolds Street (sic)], June 24, 1985.	II-13
Letter, E.G. DeLaney, Director, Division of Facility and Site Decommissioning Projects, Office of Nuclear Energy, Department of Energy, to S. Ahrends, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy. "Authorization to Conduct Remedial Action at Property AL068," September 19, 1986.	II-16
Memorandum, J.J. Fiore, Director, Division of Facility and Site Decommissioning Projects, Office of Nuclear Energy, Department of Energy, to S. Ahrends, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy. "Designation of Colonie, New York Properties AL064, AL098, AL100, AL102, AL105, and AL106," January 20, 1987.	II-17
Letter, J.J. Fiore, Director, Division of Facility and Site Decommissioning Projects, Office of Nuclear Energy, Department of Energy, to P. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy. "Designation of Colonie, New York Vicinity Properties Numbered AL084, AL130, AL136, AL148, AL151, AL212, AL215, AL217, and AL218," January 5, 1988.	II-19

Letter, J.J. Fiore, Director, Division of Facility and Site Decommissioning Projects, Office of Nuclear Energy, Department of Energy, to P. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy. "Designation of Colonie Vicinity at 4 Maplewood Avenue (AL143) and 16 Yardboro Avenue (AL137)."

October 24, 1988.

II-21

JUN 24 1985

MULTIPLE LETTERS - SEE ATTACHED LETTERS

Mr. William Ebel
Grazy Hawk Development Corp.
8 Birchtree Road
Albany, New York 12205

Dear Mr. Ebel:

Although the report of the radiological survey of your property has not been finalized, the data suggests that there are minor levels of residual radioactive material in the soil and/or other material on your property. The health risks due to this minor amount of contamination are minimal. When the report is finalized, it will be forwarded to you.

The Energy and Water Appropriation Act for Fiscal Year 1984, enacted by Congress, directed the Department of Energy to undertake a decontamination research and development project involving the former National Lead site at Albany/Colonie, New York, and the properties in the vicinity that became contaminated from the site. This means that any properties in the vicinity of the former National Lead site which contain radioactive material derived from the site that is in excess of the radiological criteria established for the project will be considered for remedial action. With your permission, we are planning to perform remedial action on your property because your property exceeds the project criteria. You will be contacted by Mr. E. L. Keller of the Department's Oak Ridge Operations Office or his representative prior to any remedial action initiated on your property.

Should you have any questions, please contact Mr. E. L. Keller, Director, Technical Services Division, Oak Ridge Operations Office, U.S. Department of Energy, P.O. Box E, Oak Ridge, Tennessee 37830 (615-576-0948).

Sincerely,

Ed DeLaney

John E. Baublitz, Director
Division of Remedial Action Projects
Office of Terminal Waste Disposal
and Remedial Action
Office of Nuclear Energy

- bcc:
- E. Keller, OR
- G. Newtown, OR
- W. Bibb, OR
- B. Berven, ORNL
- A. Whitman, NE-24
- Aerospace
- NE-73 (4)
- NE-24
- Whitman

NE-24:AWhitman:ph:353-5439:6/21/85:IBM:172/45:3.32.7

CONCURRENCES	
RTG SYMBOL	NE-24
INITIALS/SIG.	Whitman
DATE	6/21/85
RTG SYMBOL	NE-24
INITIALS/SIG.	DeLaney
DATE	6/21/85
RTG SYMBOL	NE-24
INITIALS/SIG.	Baublitz
DATE	6/21/85
RTG SYMBOL	
INITIALS/SIG.	
DATE	
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RTG SYMBOL	
INITIALS/SIG.	
DATE	
RTG SYMBOL	
INITIALS/SIG.	
DATE	

Address ListAddressee

1. Mr. William Ebel
Gray Hawk Development Corp.
8 Birchtree Road
Albany, New York 12205

3. Mr. Ralph J. Ricchiuti
1161 Central Avenue
Albany, New York 12205

4. Mr. Fred G. Field, Jr., Supervisor
Town of Colonie
Memorial Town Hall
Newtonville, New York 12128

6. Mr. Germaine Miklatish
5 Yardboro Avenue
Albany, New York 12205

7. Mr. L. A. Dott
1185 Central Avenue
Colonie, New York 12212

8. Mr. John H. Jeram
1 Reynolds Street
Colonie, New York 12212

Address ListAddressee

1. Mr. William Ebel
Gray Hawk Development Corp.
8 Birchtree Road
Albany, New York 12205

3. Mr. Ralph J. Ricchiuti
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4. Mr. Fred G. Field, Jr., Supervisor
Town of Colonie
Memorial Town Hall
Newtonville, New York 12128

6. Mr. Germaine Miklatish
5 Yardboro Avenue
Albany, New York 12205

7. Mr. L. A. Dott
1185 Central Avenue
Colonie, New York 12212

8. Mr. John H. Jeram
1 Reynolds Street
Colonie, New York 12212

9. Mr. Donald C. Hallenbeck
1147 Central Avenue
Colonie, New York 12212

10. Mr. Rudolph K. Paulsen, Sec/Treas.
Gentiles, 1100 Central Avenue
Colonie, New York 12212

11. Mr. Sam S. Clevenson, Publisher
The Jewish World
1104 Central Avenue
Colonie, New York 12212

12. Mr. Alberto Conte
1129 Central Avenue
Colonie, New York 12212

040427/11/86

SEP 19 1986

NE-23

DeLaney

NE-23

9/19/86

Authorization to Conduct Remedial Action at Property AL068

Stan Ahrends, Director
Technical Services Division
Oak Ridge Operations Office

Based on the attached draft radiological survey report by the Radiological Survey Activities Group, ORNL, the property identified as AL068, 10 N. Elmhurst Avenue, Albany, New York, is authorized for remedial action. For your information, draft reports for properties AL067, AL069, AL081, AL082, and AL086 through AL090 (attached) have also been reviewed, and it has been determined that no remedial actions will be necessary at these properties because they do not exceed FUSRAP guidelines for remedial action developed for the uranium-236 contamination at Colonie vicinity properties. Final survey reports for these properties will be forwarded to you directly by ORNL. If you have any questions regarding this action, please call me.

1-1

Edward G. DeLaney, Director
Division of Facility and Site
Decommissioning Projects
Office of Nuclear Energy

Attachments

bcc:

S. McCracken, OR

J. Berger, ORAU

B. Berven, ORNL

G. Turi, NE-23

Aerospace

NE-20 RF

NE-23 RF

NEG (4)

NE-23:EDeLaney:ph:353-4716:9/18/86:IBM:261/11:3.32.7

006-251

Memorandum

→ Joel Aronson
BNT

DATE: JAN 20 1987

TO OF: NE-23

SUBJECT: Designation of Colonie, New York, Properties AL064, AL098, AL100, AL102, AL105, and AL106

TO: Stan Ahrends, Director
Technical Services Division
Oak Ridge Operations Office

The following properties are being designated for remedial action on the basis of ORNL draft designation reports:

- AL064 - Town of Colonie property, 0.3 acre plot (tax map 0905 dated 6/68, revised 12/72; north of the DOE site
- AL098 - 1143 Central Avenue, Colonie
- AL100 - 1145 Central Avenue, Colonie
- AL102 - 1149 Central Avenue, Colonie
- AL105 - 1178 Central Avenue, Colonie
- AL106 - 1200 Central Avenue, Colonie

Copies of the draft reports and DFSD comments are attached. The draft data indicates that there may be a significant quantity of contamination buried on property AL064. Residue and radiation levels on the other properties are relatively low. They were designated because small areas on the properties exceeded the maximum soil concentration guideline of 100 pCi/g per 1 square meter. There are also some areas on each of the properties that have concentrations in excess of 35 pCi/g; however, the aerial extent of this contamination does not exceed guidelines. Cleanup of these areas may be considered under the ALARA program in the field.

Property AL098 is being designated because a small volume of contaminated material having concentrations well in excess of the 100 pCi/g soil maximum was found on the roof. This soil limit is, technically, not applicable to the material on the roof; however, because of the small quantity of material involved and the concentration, this site is being designated for remedial action.

DFSD will be notifying the property owners of the designation of these properties as soon as we receive names and addresses from ORNL. Please delay any contact with the owners until notification has been made. If you

DESTROY
007137

have any questions regarding this action, please contact Andy Wallo at FTS 233-5439.

151

James J. Fiore, Director
Division of Facility and Site
Decommissioning Projects
Office of Nuclear Energy

Attachments

bcc:

- G. Turi, NE-23
- J. Fiore, NE-23
- B. Bowles, OR
- B. Berven, ORNL
- J. Berger, ORAU
- Aerospace

- NE-20 RF
- NE-23 RF
- Wallo RF
- NEG (4)

NE-23:AWallo:ph:353-5439:1/16/87:IDM:16/7:3.32.7

CONCURRENCES		
RTG SYMBOL	NE-23	
INITIALS/SIG.	<i>AWallo</i>	
DATE	1/16/87	
RTG SYMBOL	NE-23	
INITIALS/SIG.	Fiore	
DATE	1/18/87	
RTG SYMBOL		
INITIALS/SIG.		
DATE		
RTG SYMBOL		
INITIALS/SIG.		
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RTG SYMBOL		
INITIALS/SIG.		
DATE		

Memorandum

BOI

cy: Gross

DATE: JAN 05 1988
REPLY TO: NE-23
ATTN OF: NE-23

SUBJECT: Designation of Colonie, New York Vicinity Properties Numbered AL084, AL130, AL136, AL148, AL151, AL212, AL215, AL217, and AL218

TO: P. Gross, OR

DFSD has reviewed the radiological data on these 9 Colonie vicinity properties and has determined that each of these properties contain residual radioactive material derived from operations of the former NL Industries facility in Colonie and that the levels are in excess of guidelines established for that remedial action project. As a result, OR/TSD is directed to proceed with remedial action related activities at these properties.

The specific properties are:

Number	Address	Owner
AL084	✓ 1101 Central Ave.	Charles B. Cameron
AL130	✓ 1177 Central Ave.	Edward Dott
AL136	✓ 20 Yardboro Ave.	Mr. D. Rubbo
AL148	✓ 10/14 Kraft Ave.	Kilby Brothers, Inc.
AL151	✓ NY State land between 80 & 110 Yardboro Ave.	State of New York (Charles Carlson)
AL212	✓ I-90 Right-of-way	State of New York (Charles Carlson)
AL215	✓ 1110 Central Ave.	Grimm Building Materials Co.
AL217	✓ Railroad Ave.	L. W. Crannell
AL218	✓ NW of site & 1st section of Niagara-Mohawk Prop. Railroad Ave.	Niagara-Mohawk (Peter Lebros)
	Niagara-Mohawk Prop.	
	NW of Crannell Prop. (AL217)	

As indicated above, all of these properties exceed soil guidelines (average and/or hot spot) established for the project in Colonie. We have provided Mr. Atkin of your office copies of the draft reports used in the determination along with our comments on the reports. These should be carefully reviewed by your contractor when characterization and remedial action plans are being prepared. The following should also be considered when planning future activities:

The property at 10/14 Kraft Ave. (AL148) was identified by an individual in the Colonie area as a potential dump site for NL. None of our records investigations or discussions with former NL employees substantiate these allegations. Nor does the ORNL survey data. However, the allegations should be considered when planning the final characterization of the site as appropriate to dispel any further concern.

Properties at 1110 and 1177 Central Ave. (AL130 & AL215) have debris on the roof which contain residual uranium in concentrations greater than 35 pCi/gram. While this debris in itself does not necessarily

exceed guidelines, it offers potential to further contamination of the soil and should be considered for clean-up under the Department's ALARA requirement.

I will be notifying the owners of the designation of their properties in the next few days. After which time your office or your contractor may contact the owners to make arrangements for characterization and remedial action. If you have any questions regarding the designation of these sites call Mr. Andrew Wallo of my staff at FTS 233-5439.

- bcc:
- R. Atkin, OR
- G. Turi, NE-23
- W. Cottrell, ORNL
- J. Berger, ORAU

151

James J. Fiore, Director
Division of Facility and Site
Decommissioning Projects
Office of Nuclear Energy

- NE-20 RF
- NE-23 RF
- Wallo RF
- NEG (4)

NE-23:Wallo@cb:353-5439:1/4/88:IBM365/09

CONCURRENCES		
RTG. SYMBOL	NE-23	
INITIALS/SIG.	Wallo	
DATE	1/4/88	
RTG. SYMBOL	NE-23	
INITIALS/SIG.	Fiore	
DATE	1/4/88	
RTG. SYMBOL		
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DATE		

United States Government

memorandum

DATE: **OCT 24 1989**

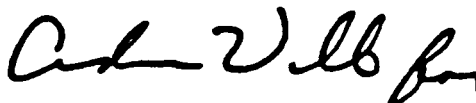
REPLY TO
ATTN OF: **NE-23**

SUBJECT: **Designation of Colonie Vicinity at 4 Maplewood Avenue (AL143) and 16 Yardboro Avenue (AL137).**

TO: **P. Gross, OR/TSD**

Based on radiological data collected by our independent verification contractor in Colonie, New York, we have determined that the properties owned by Mr. D. J. O'Keefe located at 4 Maplewood Avenue, and Ms. Philamena Poggi located at 16 Yardboro Avenue warrant inclusion in the Colonie remedial action project. Therefore, these properties are authorized for remedial action. For the record, the latter of these two properties (AL137) has been remediated by BNI as a "spillover" property. We have been in contact with her by phone and will not send a designation letter.

Specific radiological data should be obtained directly from Mr. J. Berger of ORAU. If you have any questions regarding the designation, call Mr. A. Wallo of my staff at FTS-233-5439.



**James J. Fiore, Director
Division of Facility and Site
Decommissioning Projects
Office of Nuclear Energy**

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2.3 RADIOLOGICAL CHARACTERIZATION REPORTS

The pre-remedial action status of the 18 vicinity properties is documented in Exhibit I, References 3 through 20. Additional information on 4 Maplewood and 16 Yardboro is included in the letters provided on the following pages.

Page

Letter, R.C. Robertson, Bechtel National, Inc., to A. Wallo, FUSRAP/Surplus Facilities Group, Division of Facility and Site Decommissioning Projects, Office of Nuclear Energy, Department of Energy. "Designation of Colonie Vicinity Property, 4 Maplewood (AL143)," December 9, 1988.

II-23

Letter, R.C. Robertson, Bechtel National, Inc., to A. Wallo, FUSRAP/Surplus Facilities Group, Division of Facility and Site Decommissioning Projects, Office of Nuclear Energy, Department of Energy. "Designation of Colonie Vicinity Property, 16 Yardboro (AL137)," December 9, 1988.

II-26

057668

R. Robertson
E. McNamee
J. Martin
M. Suggs

Bechtel National, Inc.

Systems Engineers — Constructors



Jackson Plaza Tower
800 Oak Ridge Turnpike
Oak Ridge, Tennessee 37830

Mail Address: P.O. Box 350, Oak Ridge, TN 37831-0350
Telex: 3785873

DEC 0 1988

FUSRAP/Surplus Facilities Group
Division of Facility & Site Decommissioning
Projects
Office of Nuclear Energy
U.S. Department of Energy
Washington, DC 20545

Attention: Andrew Wallo

Subject: Bechtel Job No. 14501, FUSRAP Project
DOE Contract No. DE-AC05-81OR20722
Designation of Colonie Vicinity Property,
4 Maplewood (AL143)
Code: 2610/WBS: 139

Reference: Letter from ORAU, James D. Berger, Manager,
addressed to Mr. Andrew Wallo, FUSRAP/Surplus
Facilities Group, U.S. Department of Energy, dated
October 25, 1988.

Dear Mr. Wallo:

While remedial action was underway at Colonie this past summer, ORAU performed verification surveys of several non-designated properties. As a result of these surveys, the property at 4 Maplewood was found to contain small amounts of radioactive contamination that exceed the DOE guidelines.

Based on radiological survey data received from ORAU, the FUSRAP independent verification contractor, and survey data collected by Bechtel National, Inc. to support remedial action, the above referenced property should be considered for designation.

The following addresses the 4 Maplewood property and describes the extent of radioactivity found on the property.

Andrew Wallo

2

I. Property Description

The property (AL143) is located at 4 Maplewood, Colonie, New York. The property measures approximately 40 feet wide by 110 feet long and contains a family dwelling. A plot map of the property and its structures is shown in Figure 1.

II. Radiological Conditions

During the ORAU and BNI surveys, which consisted of gamma walkover scans of the soil and direct contact alpha and beta-gamma measurements on the concrete and asphalt surfaces, two areas were identified that contained radioactivity above background levels. These surveys were conducted over the entire property. In order to determine the amount and type of radioactivity found in the two areas, soil samples from the dripline area and sediment samples from the rain gutters were collected and analyzed. Concentrations of uranium-238 in excess of 100 pCi/g were identified. One sample taken along a dripline area contained 170 pCi/g of uranium-238 and one sample taken from a gutter contained 110 pCi/g of uranium-238. These samples were collected near the area where ORNL had previously surveyed and identified elevated concentrations of uranium-238, and the locations of the elevated samples are shown in Figure 1. The total surface area of the contaminated area is approximately 9 feet² and the average depth is estimated to be 3 inches.

III. Conclusion

Since this property contains concentrations of uranium-238 in excess of DOE guidelines, it is recommended that the property be designated for remedial action.

Very truly yours,



R. C. Robertson
Project Manager - FUSRAP

JWM:sab:8917A

CONCURRENCE

CMAN				
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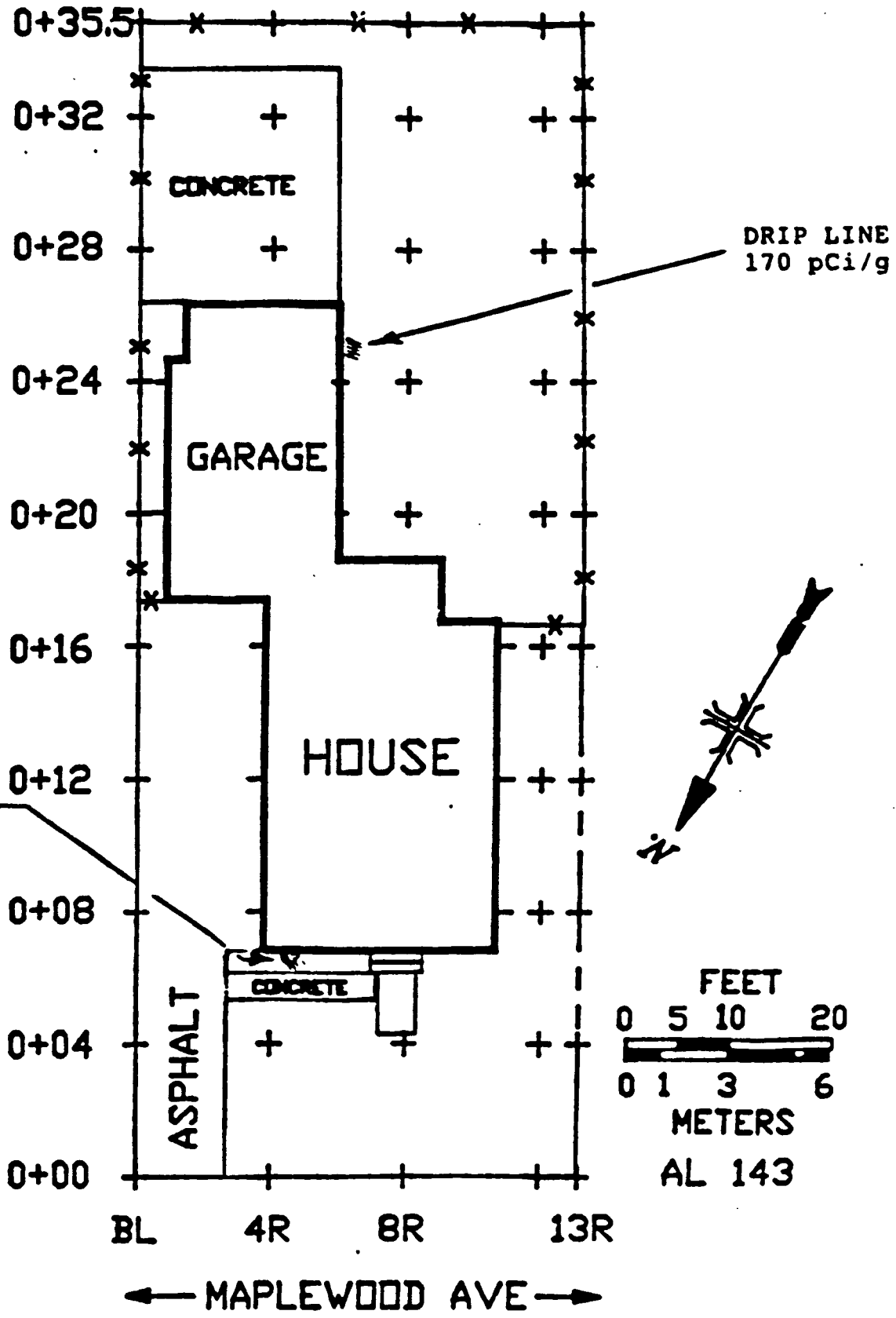


Fig. 1. Diagram showing grid point and grid block locations outdoors on the property at 4 Maplewood Avenue, Colonie, New York (AL143).

E. McNamee
J. Martin
M. Suggs

057669

Bechtel National, Inc.

Systems Engineers — Constructors



Jackson Plaza Tower
800 Oak Ridge Turnpike
Oak Ridge, Tennessee 37830

Mail Address: P.O. Box 350, Oak Ridge, TN 37831-0350
Telex: 3785873

DEC 09 1988

FUSRAP/Surplus Facilities Group
Division of Facility and Site
Decommissioning Projects
Office of Nuclear Energy
U.S. Department of Energy
Washington, DC 20545

Attention: Andrew Wallo

Subject: Bechtel Job No. 14501, FUSRAP Project
DOE Contract No. DE-AC05-81OR20722
Designation of Colonie Vicinity Property,
16 Yardboro (AL137)
Code: 2610/WBS: 139

Reference: Letter from ORAU, James D. Berger, Manager,
addressed to Mr. Andrew Wallo, FUSRAP/Surplus
Facilities Group, U.S. Department of Energy, dated
October 25, 1988.

Dear Mr. Wallo:

During the course of remedial action on 20 Yardboro Avenue,
contamination was found to extend up to the property boundary.
In following this spillover contamination, BNI surveyed
portions of 16 Yardboro Avenue. Additionally, ORAU surveyed
the property as part of their verification program on
undesigned properties. As a result of these surveys, the
property at 16 Yardboro was found to contain small amounts of
radioactive contamination that exceed the DOE guidelines.

Based on radiological survey data received from ORAU and survey
data collected by Bechtel National, Inc. during the Colonie
vicinity properties' remedial action, the above referenced
property should be considered for designation.

The following addresses the 16 Yardboro property and describes
the extent of radioactivity found on the property.

I. Property Description

The property (AL137) is located at 16 Yardboro, Colonie, New York. The property measures approximately 60 feet wide by 110 feet long and contains a family dwelling. A plot map of the property and its structures is shown in Figure 1.

II. Radiological Conditions

During the ORAU and BNI surveys, which consisted of gamma walkover scans of the soil and direct alpha and beta-gamma measurements on the concrete and asphalt surfaces, one area was identified that contained radioactivity above background levels. These surveys were conducted over the entire property. In order to determine the amount and type of radioactivity found in the one area containing elevated readings, soil samples were collected and analyzed. Concentrations of uranium-238 in excess of 100 pCi/g were identified. One sample taken along a dripline area contained 203 pCi/g of uranium-238. These samples were collected near the area where ORNL had previously surveyed and identified elevated concentrations of uranium-238. The location of the contaminated area is shown in Figure 1. The total surface area of the contaminated area is approximately 100 square feet and the average depth is estimated to be 3 inches.

III. Conclusion

Since this property contains concentrations of uranium-238 in excess of DOE guidelines, it is recommended that the property be designated for remedial action.

Very truly yours,

R. C. Robertson

R. C. Robertson
Project Manager - FUSRAP

CONCURRENCE

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JWM:sab:8917A

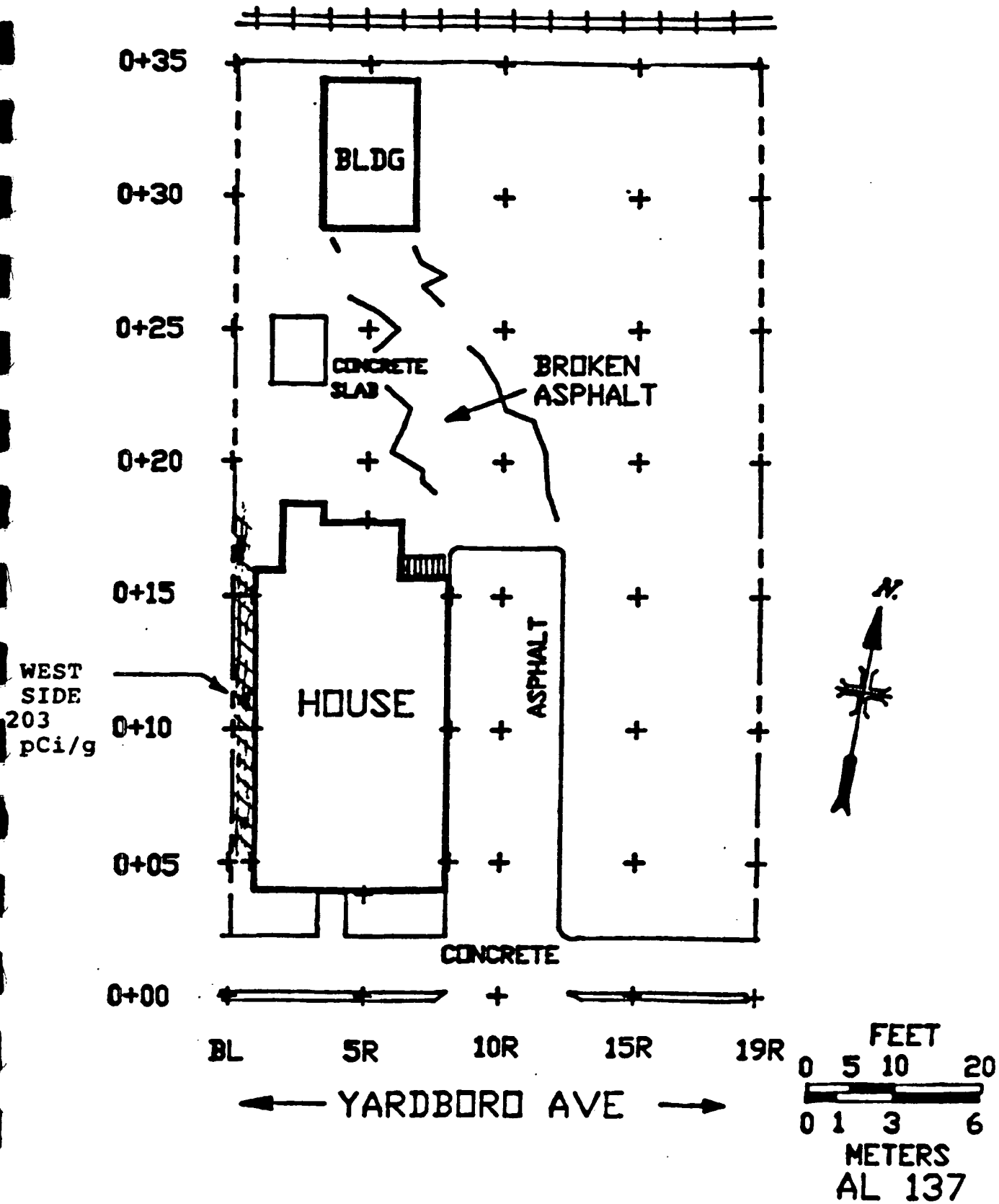


Fig. 1. Diagram showing grid point and grid block locations outdoors on the property at 16 Yardboro Avenue, Albany, New York (AL137). II-28

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

The documents listed in this section fulfill the NEPA and CERCLA requirements for the 18 vicinity properties.

	<u>Page</u>
Letter, J.J. Fiore, Director, Division of Facility and Site Decommissioning Projects, Office of Nuclear Energy, Department of Energy, to P. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy. "Colonie Vicinity Properties - EE/CA Approval Memorandum," June 21, 1988.	II-30
Argonne National Laboratory. <u>Engineering Evaluation/Cost Analysis of the Colonie Site Vicinity Properties, Colonie and Albany, New York</u> , Argonne, Ill., September 1988.	ref.
Memorandum, J.E. Baublitz, Acting Director, Office of Remedial Action and Waste Technology, Office of Nuclear Energy, Department of Energy, to File. "Colonie, New York - Remedial Action at 16 Vicinity Properties," September 2, 1988.	II-44

memorandum

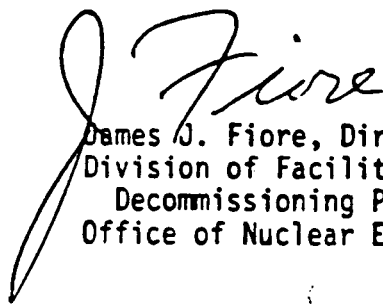
DATE: JUN 21 1988

REPLY TO
ATTN OF: NE-23

SUBJECT: Colonie Vicinity Properties - EE/CA Approval Memorandum

TO: Peter Gross, Director
Technical Services Division
Oak Ridge Operations Office

Attached for your files is a copy of the signed Approval Memorandum for the Engineering Evaluation/Cost Analysis (EE/CA) of the Colonie Vicinity Properties. The subject memorandum is well prepared and very thorough. Please note the minor changes which are marked in the text. I realize that portions of the memorandum will be used in the EE/CA itself or other Colonie documents. Subject to your judgement, future EE/CA approval memorandums could be abbreviated. Please call with your schedule for submitting the draft EE/CA.


James J. Fiore, Director
Division of Facility and Site
Decommissioning Projects
Office of Nuclear Energy

Attachment

cc:
S. Woodbury, EH-232
C. Osborne, EH-25
R. Atkin, OR
N. Beskid, ANL

**APPROVAL MEMORANDUM FOR THE
ENGINEERING EVALUATION/COST ANALYSIS OF
THE COLONIE VICINITY PROPERTIES**

SUBJECT: Engineering Evaluation/Cost Analysis (EE/CA) Request for the Colonie Vicinity Properties, Albany and Colonie, New York

Site ID: Residual radioactive contamination at the Colonie vicinity properties, Albany and Colonie, New York

Category of Removal: Non-time-critical

FROM: Peter J. Gross, Director, Technical Services Division, Oak Ridge Operations Office, U.S. Department of Energy

TO: James J. Fiore, Director, Division of Facility and Site Decommissioning Projects, Office of Nuclear Energy, U.S. Department of Energy

I. BACKGROUND

A. Site Description

The Colonie vicinity properties consist of a number of commercial and residential properties located adjacent to and in the vicinity of the former National Lead (NL) Industries facility in the town of Colonie, New York. These properties became contaminated with radioactivity as a result of airborne releases of uranium compounds produced during operation of the NL plant. At present, the U.S. Department of Energy (DOE) owns the NL site and a small portion of adjacent land formerly owned by the Niagara Mohawk Power Corporation; these two properties are referred to as the Colonie Interim Storage Site (CISS -- hereafter termed the Colonie site).

The regional setting of the Colonie site is shown in Fig. 1. The boundary between the town of Colonie and the city of Albany is just south of the Colonie site. The Colonie vicinity properties are located in both the town of Colonie and the city of Albany. The site area is approximately 6.4 km (4 mi) northwest of downtown Albany and about 4.8 km (3 mi) southeast of the village of Colonie.

B. Site History

The NL Industries began manufacturing uranium products at its Colonie plant in 1958, operating under a license issued by the U.S. Atomic Energy Commission (AEC). Between 1958 and 1969, NL Industries held numerous AEC contracts for the fabrication of slightly enriched uranium fuel elements

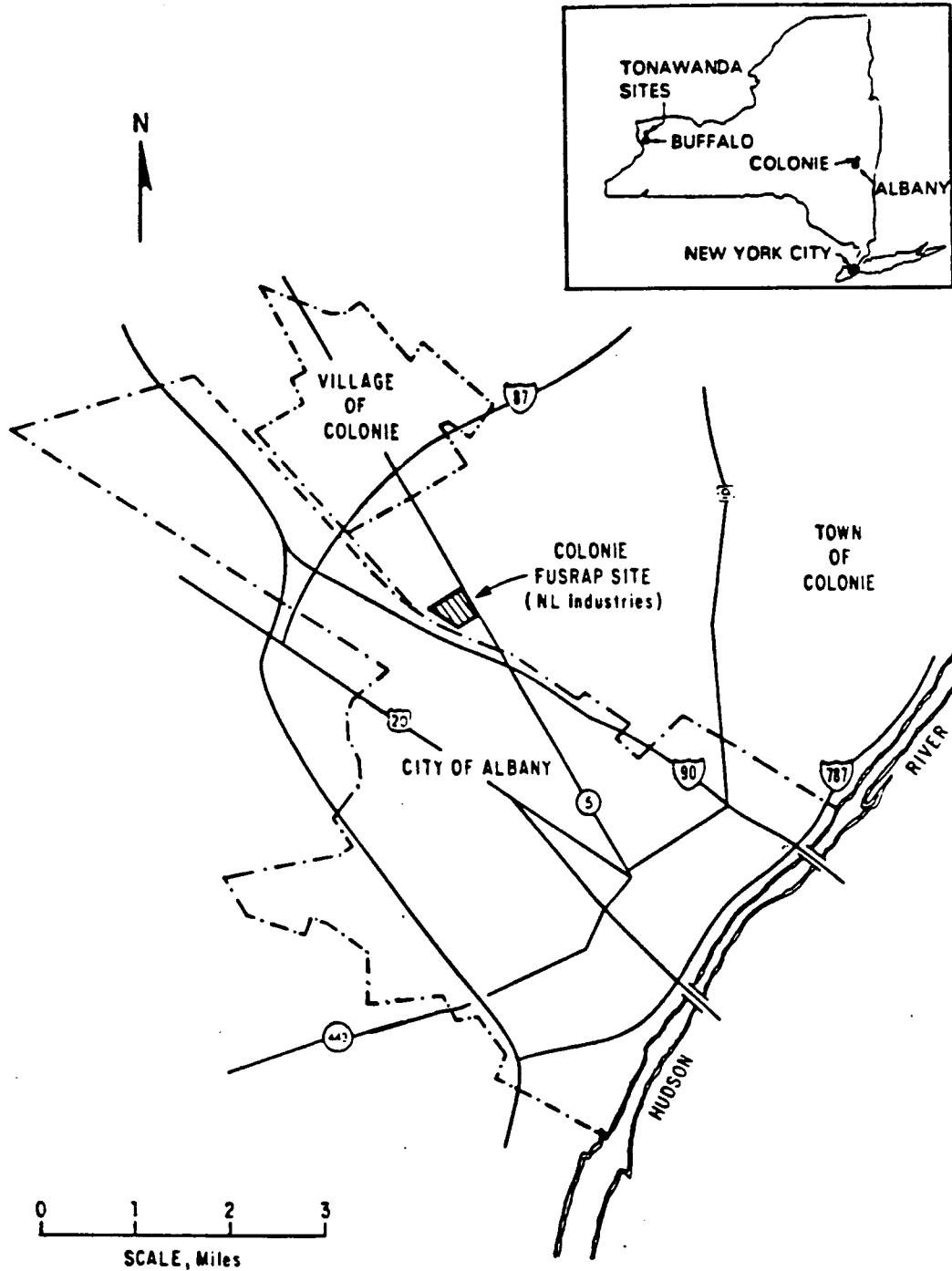


FIGURE 1 Regional Setting of the Colonie Site

and the chemical processing of nonirradiated, slightly enriched uranium scrap. A limited amount of thorium was also processed at the plant. After termination of the AEC contracts, work at the NL plant was confined to the fabrication of shielding components, ballast weights, and projectiles from depleted uranium.

On February 15, 1980, the New York State Supreme Court issued an order temporarily restraining NL Industries from operating its Colonie plant on the basis that the plant emitted uranium compounds as airborne releases. The temporary restraining order was amended on May 12, 1980, to allow NL Industries to continue operating on a limited basis. The amended order also required the company to initiate an independent investigation to assess all adverse environmental conditions in soils and on properties in the vicinity of the facility that may have been caused by the airborne discharge of radioactive particulates from the plant. In 1980, Teledyne Isotopes was contracted by NL Industries to perform a radiological survey of the facility and its vicinity. Results indicated measurable radioactive contamination at vicinity properties, primarily to the northwest and southeast of the plant along Yardboro Avenue in Albany and Central Avenue in Colonie.

After operations at the NL plant terminated in the spring of 1984, NL Industries transferred title to DOE of the land, buildings, equipment, and radioactively contaminated wastes and residues on the property. The DOE added the Colonie site vicinity properties to its Formerly Utilized Sites Remedial Action Program (FUSRAP) after receiving Congressional authorization to undertake a decontamination research and development project at the site.

C. Quantities and Types of Substances Present

Most of the contamination at the Colonie vicinity properties to be addressed in the proposed removal action resulted from airborne releases of uranium-238 that occurred during the operational period of the NL plant. Uranium-238 is a radionuclide and, as such, is included on the List of Hazardous Substances and Reportable Quantities (Table 302.4 of 40 CFR Part 302). Contamination at the vicinity properties is generally contained within the roofing material of buildings and the upper 8 cm (3 in.) of soil. The effect of rainfall on roofs contaminated by the deposition of airborne uranium-238 has contributed significantly to the contamination of vicinity property soils. Typically affected soil areas include those that receive downspout discharges and those beneath roof drip lines. The migration of uranium-238 from the site along surface drainage routes has been identified as an additional source of limited vicinity property contamination.

Radiological surveys of vicinity properties were performed by Oak Ridge National Laboratory to identify contaminated properties and to establish the preliminary horizontal and vertical extent of soil contamination in excess of

DOE cleanup guidelines.* The site-specific residual contamination guideline for uranium-238 of 35 pCi/g was established for these properties in consultation with the New York State Department of Environmental Conservation. Each property was subdivided into grids that were typically 4 to 6 m (12 to 18 ft) in length. The survey grids were designed to provide a minimum of 30 intersections. Grid blocks on larger properties ranged from 10 to 50 m (30 to 150 ft). A surface gamma scan of the entire property was then conducted, with measurements taken at each intersection using an unshielded sodium iodide (NaI) scintillation instrument to detect the very low-energy gamma radiation emitted by depleted uranium. Soil samples were also obtained at selected intersections, as well as from biased sampling locations that were identified during the initial scan. A minimum of 10 soil samples were collected from each site. A pancake-type beta-gamma detector was used to identify additional contaminated surfaces (i.e., other than soil). Strict quality assurance/quality control procedures were followed during all radiological sampling efforts. Chain-of-custody records were maintained from the time of sampling to the reporting of analytical results.

During past excavation activities, the subcontractor was required to keep all areas free of dust and to avoid spilling the contaminated soil onto any clean areas. Personnel trained in radiation protection observed all operations to ensure that safety procedures were followed. Air monitoring during cleanup activities showed that airborne uranium concentrations were below DOE radiation protection guidelines for members of the general public. These practices will be continued during future cleanup efforts.

The total waste volume resulting from cleanup of contamination at the Colonie vicinity properties addressed in this proposed action is estimated to be 2,700 m³ (3,600 yd³). This volume does not include the contaminated materials that would result from cleanup of the vicinity properties directly adjacent to the Colonie site or from cleanup of the contaminated materials buried on-site during plant operations. (Decontamination of these properties will be addressed at the same time as decontamination of the Colonie site.)

D. State and Local Authorities' Roles

Prior to DOE's assumption of responsibility for the site, a great deal of citizen concern had been expressed regarding uranium releases from the NL Industries plant and the resultant contamination of vicinity properties. The Governor of New York appointed a task force of representatives from several state agencies to coordinate the state's response to the situation. The DOE is currently coordinating activities with this state task force.

*U.S. Department of Energy Guidelines for Residual Radioactive Material at Formerly Utilized Sites Remedial Action Program and Remote Surplus Facilities Management Program Sites (Revision 2, March 1987).

Citizens' groups have also been involved in calling attention to the issue, including Citizens Concerned About NL and the Eastern New York Council on Occupational Safety and Health. These two groups continue to be involved, along with the New York Environmental Institute through its Superfund monitoring project.

DOE held a public meeting in Albany on February 14, 1984, to discuss plans for the Colonie site. A public meeting was held in Colonie on July 2, 1984, to discuss remedial action plans with affected property owners and to answer questions from the public. Individual contact is maintained with owners of residential and commercial properties that were remediated in 1984 and 1985, as well as with owners of properties that have been designated but not yet remediated. News releases have been issued, media tours have been conducted, and media inquiries have been responded to during the interim remedial actions.

E. Actions to Date

In 1980, NL Industries contracted for a radiological survey of the facility and the surrounding area. Results indicated that a number of vicinity properties were contaminated with uranium-238. In 1983, 1984, and 1985, Oak Ridge National Laboratory conducted detailed radiological surveys of more than 200 separate residential and commercial properties in the vicinity of the former NL plant. Results of the survey identified 36 vicinity properties with levels of contamination that exceeded current DOE guidelines (37 properties were actually identified, but the owner of one property refused to grant his permission for the proposed cleanup). These properties were subsequently designated as requiring remedial action. Radioactively contaminated materials were removed from 11 of these properties in 1984 and from an additional 24 properties in 1985 (see Fig. 2 for the locations of these decontaminated properties). The volume of contaminated materials, which are currently stored at the Colonie site inside the former NL plant, totaled about 700 m³ (900 yd³). The remaining property is a vacant lot adjacent to the Colonie site, which will be decontaminated at the same time as the Colonie site. Radiological survey work at the Colonie vicinity properties continued through June 1987. As a result of these surveys, an additional 18 contaminated properties have been designated for remedial action. Three of these properties are contiguous to the Colonie site, and their cleanup will be addressed along with that of the Colonie site. Related documentation will be provided as part of the ongoing environmental review and analysis process. The following 15 vicinity properties are included in the proposed removal action:

1101 Central Avenue	10 N. Elmhurst Avenue
1110 Central Avenue	20 Yardboro Avenue
1143 Central Avenue	New York State land between
1145 Central Avenue	80 and 110 Yardboro Avenue
1149 Central Avenue	Substation at Central Avenue

1177 Central Avenue
 1178 Central Avenue
 1200 Central Avenue
 10/14 Kraft Avenue

Railroad Avenue northwest of
 site and first section of
 Niagara Mohawk property
 I-90 right-of-way

These properties, which are shown in Fig. 3, will be decontaminated in 1988 and/or 1989, depending on the availability of funds.

II. Threats to Public Health or Welfare or the Environment

The threats posed by the contamination at the Colonie vicinity properties are of a non-time-critical nature, i.e., no imminent or substantial endangerment of public health or welfare or the environment currently exists at these properties that would necessitate cleanup within six months. The threats do meet certain criteria listed in the National Contingency Plan (NCP) for categorization of specific cleanup efforts as removal actions. The eight factors to be considered in determining the appropriateness of a removal action, as listed in Section 300.65(b)(2) of the NCP, are:

1. Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or food chain;
2. Actual or potential contamination of drinking water supplies or sensitive ecosystems;
3. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;
4. High levels of hazardous substances or pollutants or contaminants in soils, largely at or near the surface, that may migrate;
5. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;
6. Threat of fire or explosion;
7. Availability of other appropriate federal or state response mechanisms to respond to the release;
8. Other situations or factors that may pose threats to public health or welfare or the environment.

The major threats to public health or welfare or the environment associated with the Colonie vicinity properties are related to the potential release/ threat of release of radioactive material from contaminated surfaces (the radioactivity is generally contained within the roofs of buildings and the surface layer of soil).

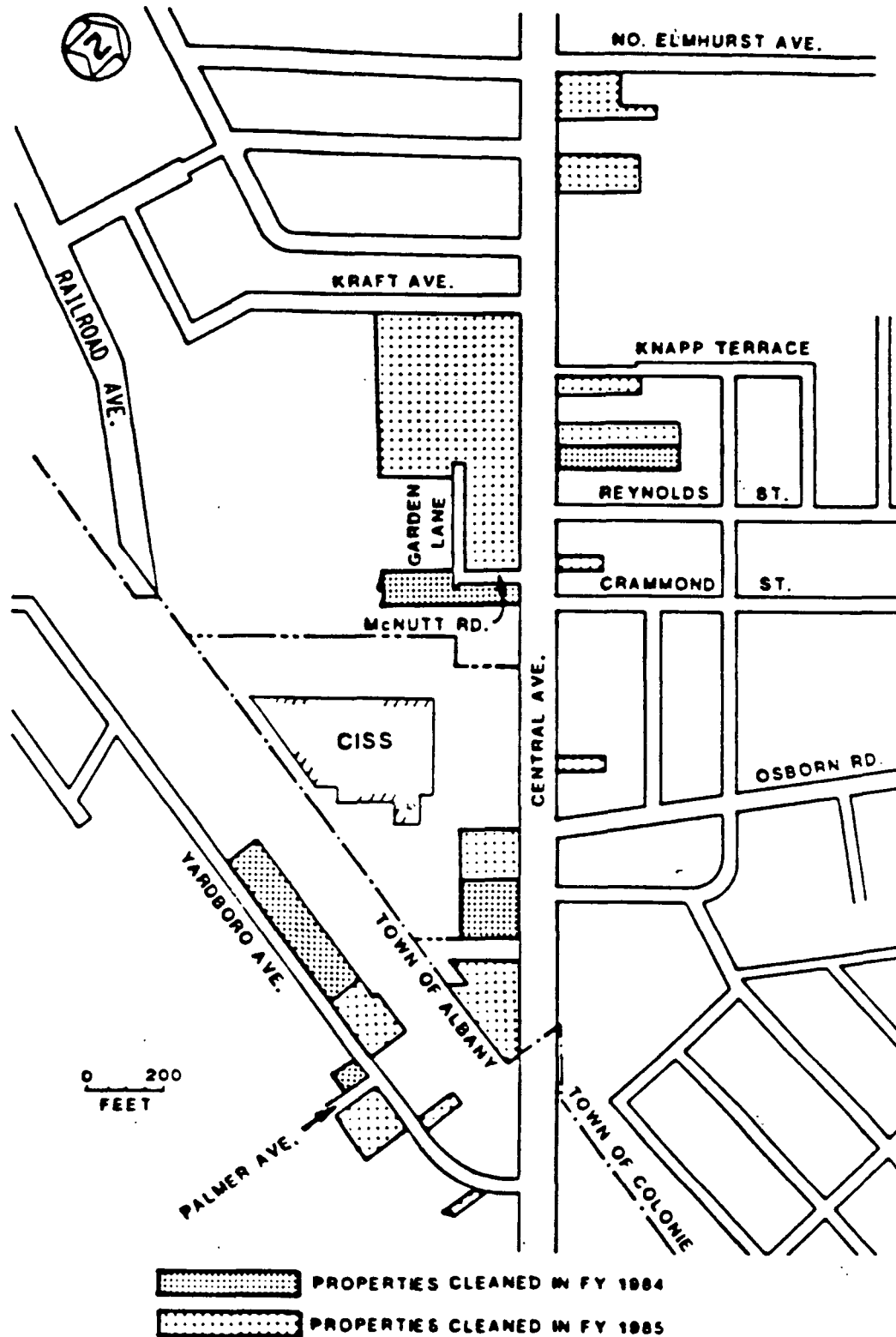


FIGURE 2 Map of the Colonie Site (CISS) and Vicinity Properties

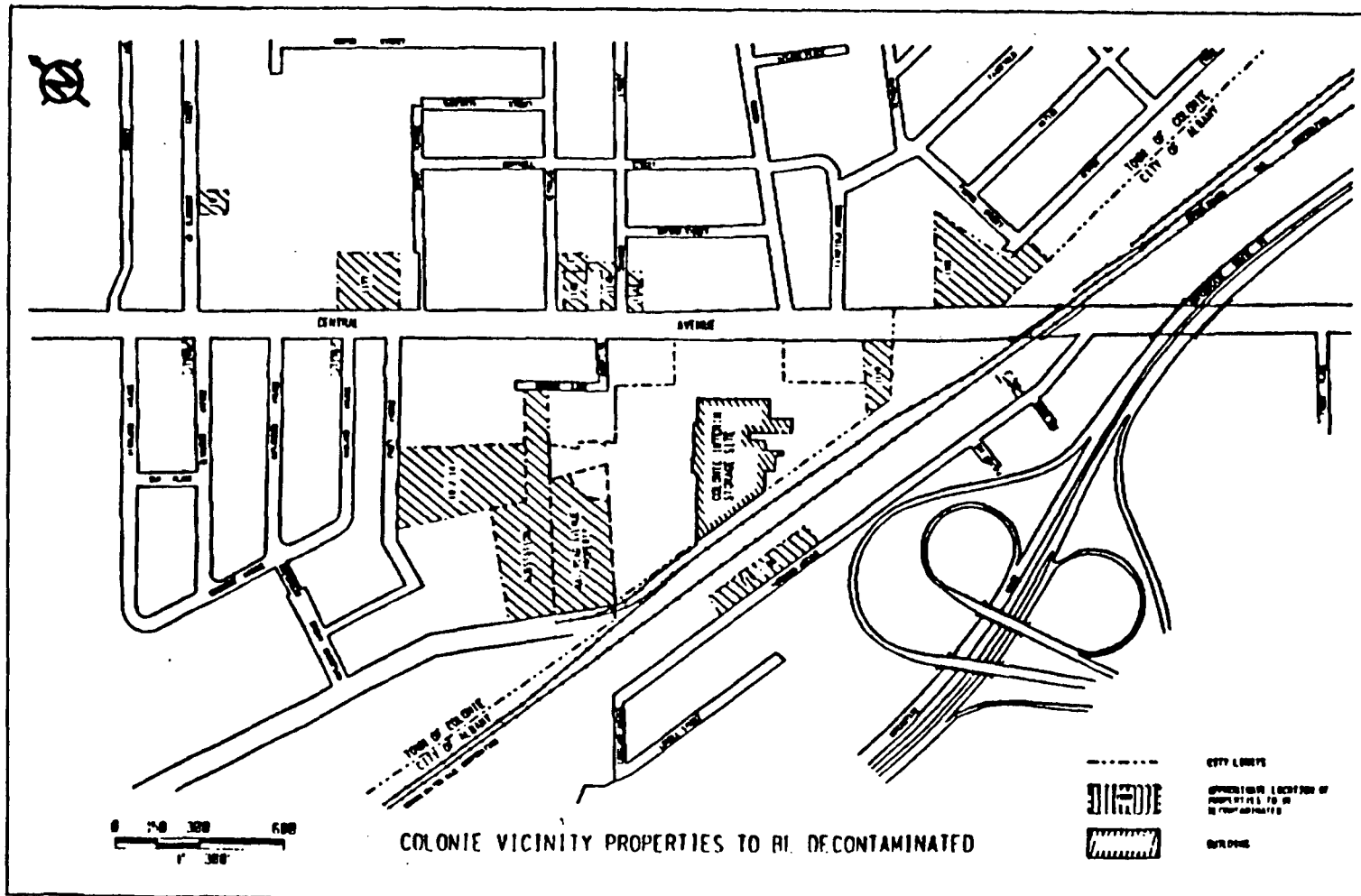


FIGURE 3 Location of the Colonie Vicinity Properties Currently Proposed for Removal Action

The DOE has conducted a pathway analysis to address potential hazards associated with the current status of contamination on the roofs of buildings at Colonie vicinity properties. Results of this analysis indicate that there are no significant threats to public health or welfare or the environment related to this contamination. Therefore, the scope of the proposed removal action is limited to the remediation of contaminated soil conditions. The potential pathways of exposure to radioactivity include inhalation, direct contact, external exposure, and ingestion. Weather conditions (e.g., wind and rain) may cause radioactive contaminants to migrate from current locations. Resuspension, surface runoff, leaching to groundwater, direct ingestion by animals, and uptake by plants -- with subsequent entry into the animal food chain -- are all potential mechanisms of contaminant release. If the contamination at the Colonie vicinity properties is not remediated, the current exposure situations will persist and both the potential for release and the magnitude of related adverse impacts to the public health or welfare or the environment will likely increase over time.

A. Threat to Public Health or Welfare

The potential threat to public health or welfare from uranium-238 contamination at the Colonie vicinity properties is primarily related to the dispersal of radioactively contaminated soil particles into the atmosphere by wind erosion and resuspension. This airborne (inhalation) pathway is expected to represent the most significant threat to the public. Because the contamination is surficial, the direct contact and external pathways are also potential sources of exposure. Further, due to gardening activities by neighborhood residents, the food ingestion pathway may also be an additional source of exposure. However, these three pathways are not expected to be as significant as the inhalation pathway. The potential for radiation exposure of the public from the drinking water ingestion pathway is also expected to be minimal because the drinking water supply for the Colonie area is currently pumped from a surface reservoir 32 km (20 mi) south of the Colonie site, rather than from the local groundwater aquifer.

B. Threat to the Environment

The release of radioactive contaminants from vicinity properties could negatively impact local ecosystems. Transient or permanent populations of animals that occupy the Colonie vicinity properties are currently being exposed to low levels of radioactivity from contaminated surfaces through inhalation, direct contact, external exposure, and ingestion. Because animals maintain close contact with ground surfaces, the first three exposure pathways are potentially significant. Ingestion is also expected to play a major role in their exposure. Monitoring at the Colonie site has indicated a recent trend toward increased uranium concentrations in surface waters, and these surface waters are a potential source of drinking water for resident or transient animals. In addition, the uptake of uranium-238 by local plant populations -- via direct contact or solution transfer -- and the deposition of radioactive particles on plant surfaces could contribute to exposure of local animal populations via direct contact and ingestion.

III. Proposed Project and Costs

A. Objectives of the EE/CA

The objectives of the EE/CA report are to meet the requirements of CERCLA and NEPA by identifying the cleanup of Colonie vicinity properties as a removal action and documenting response activities that will mitigate the potential for release of radioactive contaminants from the properties into the environment, thus minimizing the related threats to public health, welfare, and the environment.

The EE/CA report will address the following specific tasks: (1) a preliminary site evaluation, with collection and summary of existing analytical data and information regarding site history and background; (2) identification (and collection) of additional data requirements, if needed; (3) comparison of verified data to existing environmental standards to determine the specific nature of the threat; (4) identification of site conditions that justify a removal action; (5) identification of removal action objectives based on statutory limits, scope and purpose, schedules, and compliance with applicable or relevant and appropriate requirements (ARARs); (6) identification of potential technologies and institutional issues, with assembly of technologies into removal action alternatives; (7) screening of removal action alternatives according to protection of health and the environment, feasibility of a technology and its ability to achieve the desired results in a stipulated time, and institutional issues; (8) analysis of removal action alternatives according to technical feasibility, reasonable cost, institutional issues, and environmental impacts; (9) comparative analysis of removal action alternatives, with the subsequent recommendation of a preferred alternative; (10) preparation (or revision) of a community relations plan to address the proposed removal action, and (11) evaluation to support a determination of clearly insignificant environmental impacts or preparation of a FONSI (finding of no significant impact).

B. EE/CA Schedule

The draft EE/CA report will be available for public review in May 1988. All comments will be reviewed and addressed in the Responsiveness Summary, as appropriate. An Action Memorandum for the Colonie site, which includes the Responsiveness Summary, will also be issued in June 1988. A NEPA Memorandum-to-File or FONSI will be prepared, as appropriate.

C. Estimated Cost and Duration of Removal Action

The statutory limits of Superfund-financed removal actions, as specified in Section 104(e)(1) of the Superfund Amendments and Reauthorization Act of 1986, are one year and \$2 million. Although the proposed Colonie action is not a Superfund-financed removal action, the estimated duration and cost of DOE's proposed removal action are well within these limits.

IV. Expected Change in the Situation Should No Action Be Taken or Should Action Be Delayed

The expected change in the situation should no action be taken or should action be delayed is twofold. First, there would be potential for a release that would spread the contamination into a larger area of the local environment. Therefore, delay in or denial of a timely response could increase the size of the potentially affected population, as well as the level of effort and cost eventually required for effective cleanup of the contamination. Secondly, the exposure of the currently affected population to radioactivity would continue, and delay in or denial of a timely response could increase the magnitude of adverse impacts on the health and welfare of that population.

V. Important Policy Issues

A. Division of Responsibilities among Federal, State, and Local Agencies

Executive Order 12580 delegates authority to DOE for CERCLA activities for facilities under DOE jurisdiction, custody, or control, except for remedial actions at facilities on the National Priorities List of the U.S. Environmental Protection Agency (EPA). The DOE has authority for cleanup of the Colonie site under FUSRAP. Because contamination of vicinity properties was determined to have resulted from airborne releases of radioactivity from the NL plant during its operational period, DOE has also assumed responsibility for cleanup of those properties. The activities at the Colonie site and vicinity properties are being implemented with the involvement of state and local agencies and citizens' groups, in accordance with a community relations plan. In addition, environmental documentation and cleanup efforts are being coordinated with the EPA Region II Office.

B. Off-site Disposal Availability

Storage of waste materials from the Colonie vicinity properties is available on an interim basis at the Colonie site. The DOE will begin an analysis process during 1988 to evaluate alternatives for permanent disposition of the Colonie site and the wastes stored at the site.

C. Compliance with Other Environmental Statutes

The removal action at the Colonie vicinity properties will be carried out in accordance with all ARARs. The requirements for environmental protection will include but not be limited to:

- DOE Orders addressing residual radioactivity, radioactive waste management, materials transportation, and protection of occupational and environmental safety and health;

- U.S. Department of Transportation requirements addressing the transportation of low-level radioactive materials;
- Occupational Safety and Health Administration requirements addressing field monitoring and the health and safety of workers and the general public; and
- Guidelines of the U.S. Nuclear Regulatory Commission and the EPA regarding decontamination and remedial actions.

D. Contiguous Sites

To facilitate implementation of cleanup activities at the Colonie vicinity properties and the associated environmental review effort, DOE is combining cleanup of the properties into one action. The vicinity properties are related on the basis of the nature and extent of contamination, potential threat of the contamination to the public health or welfare or the environment, and geographic proximity.

Grouping sites for a single action is provided for in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Section 104(d)(4), and EPA has determined that such grouping is appropriate in certain cases. For example, the Minker/Stout/Romaine Creek site in Missouri consisted of several residential properties contaminated with dioxin; even though the properties were not contiguous, EPA determined that because the same target population might be affected, cleanup of the properties could be considered a single action.

VI. Recommendation

In order to minimize the potential for adverse impacts on the public health or welfare or the environment, and because conditions at the Colonie vicinity properties meet the criteria for a removal action as stated in Section 300.65 of the National Contingency Plan, I recommend your approval of this EE/CA request. The estimated duration and cost of performing the removal action are within the statutory limits for Superfund-financed removal actions. You may indicate your approval or disapproval by signing on the corresponding line.

Approve:

J. Fiore
Signature

Date 6/21/88

J. Fiore Director, Division of Facility and Site
Name and Title DECOMMISSIONING

Disapprove:

Signature

Date _____

Name and Title

SEP 2 1988

NE-20

Colonie, New York - Removal Actions at 16 Vicinity Properties

File

The Department of Energy has decided to conduct a removal action to decontaminate 16 vicinity properties and store the waste at the Colonie, New York, site as described in the Attachment. These properties were contaminated as a result of an airborne release of depleted uranium from the Colonie site. The waste removed from these 16 properties (approximately 300 cubic yards) will be put in interim storage on the Colonie site along with material previously removed from 35 other vicinity properties. The impacts of this removal action, both to workers and to members of the general public, surface and ground water, vegetation, and wildlife are reviewed in the attachment and the removal action will have no significant environmental impacts.

Consistent with the requirements of NEPA and CERCLA, an RI/FS-EIS is currently underway to consider long-term management of the waste and remedial action alternatives for the Colonie site itself. This removal action will have no significant environmental impact and will not prejudice the RI/FS-EIS record of decision by limiting the choice of reasonable alternatives.

Isl J. Fiore

John E. Baublitz
Acting Director
Office of Remedial Action
and Waste Technology
Office of Nuclear Energy

Attachment

NE-23 RF
Turi RF
Baublitz RF
NEG (4)

NE-23:GTuri:ph:353-2766:9/2/88:IBM:245/8:3.32.7

M/R: Copies of this memorandum and attachment are being provided to EH by separate memorandum to C. Borgstrom and J. Tseng from J. Fiore

NE-23

Turi
9/2/88

NE-23

Fiore
9/2/88

NE-20

Baublitz
9/2/88

2.5 ACCESS AGREEMENTS

Access agreements were obtained from each property owner before remedial action activities began; these agreements are included by reference. The vicinity properties for which access agreements exist are as follows:

Exit 4, I-90 Right-of-Way	10/14 Kraft Avenue (AL148)
Property (AL212)	4 Maplewood Avenue (AL143)
1101 Central Avenue (AL084)	Niagara-Mohawk Property,
1110 Central Avenue (AL215)	Railroad Avenue (AL218)
1143 Central Avenue (AL098)	10 N. Elmhurst Avenue (AL068)
1145 Central Avenue (AL100)	Crannell Property,
1149 Central Avenue (AL102)	Railroad Avenue (AL217)
1177 Central Avenue (AL130)	1 Reynolds Avenue (AL033)
1178 Central Avenue (AL105)	16 Yardboro Avenue (AL137)
1200 Central Avenue (AL106)	20 Yardboro Avenue (AL136)
	80-110 Yardboro Avenue (AL151)

2.6 POST-REMEDIAL ACTION REPORT

The following report documents the remedial action activities and the post-remedial action radiological status for each of the subject properties decontaminated in 1988.

	<u>Page</u>
Bechtel National, Inc. <u>Post-Remedial Action Report for the Colonie Interim Storage Site Vicinity Properties - 1988</u> , DOE/OR/20722-225, Oak Ridge, Tenn., June 1989.	ref.

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

This section contains the documents related to the successful decontamination of the subject properties, including the verification statement, letters to the property owners, and the IVC's verification reports. The documents are included in the following pages.

	<u>Page</u>
Letter, James D. Berger, Manager, Radiological Site Assessment Program, Oak Ridge Associated Universities, to J.J. Fiore, Director, Division of Facility and Site Decommissioning Projects, Office of Nuclear Energy, Department of Energy. "Verification of Colonie Vicinity Property Remedial Actions - 1988 Activities," April 12, 1989.	II-51
Letter, P.J. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy, to C. Carlson. "Post-Remedial Action Report for the Colonie Interim Storage Site Vicinity Properties--1988," July 6, 1989.	II-52
Letter, P.J. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy, to T.D. Cameron. "Post-Remedial Action Report for the Colonie Interim Storage Site Vicinity Properties--1985 and 1988," July 6, 1989.	II-53
Letter, P.J. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy, to W. Grimm. "Post-Remedial Action Report for the Colonie Interim Storage Site Vicinity Properties--1988," July 6, 1989.	II-54

Letter, P.J. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy, to E.J. Marks. "Post-Remedial Action Report for the Colonie Interim Storage Site Vicinity Properties--1988," July 6, 1989. II-55

Letter, P.J. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy, to G.J. Wheeler. "Post-Remedial Action Report for the Colonie Interim Storage Site Vicinity Properties--1988," July 6, 1989. II-56

Letter, P.J. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy, to S.J. and A.A. Rico. "Post-Remedial Action Report for the Colonie Interim Storage Site Vicinity Properties--1988," July 6, 1989. II-57

Letter, P.J. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy, to T.J. Dott. "Post-Remedial Action Report for the Colonie Interim Storage Site Vicinity Properties--1988," July 6, 1989. II-58

Letter, P.J. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy, to P.F. Sidoti. "Post-Remedial Action Report for the Colonie Interim Storage Site Vicinity Properties--1988," July 6, 1989. II-59

Letter, P.J. Gross, Director, Technical Services Division, Oak Ridge Operations Office, Department of Energy, to D.J. Reilly. "Post-Remedial Action Report for the Colonie Interim Storage Site Vicinity Properties--1988," July 6, 1989. II-60

Letter, P.J. Gross, Director, Technical Services Division,
Oak Ridge Operations Office, Department of Energy, to
G.M. and J.H. Kilby. "Post-Remedial Action Report for the
Colonie Interim Storage Site Vicinity Properties--1988,"
July 27, 1989.

II-61

Letter, P.J. Gross, Director, Technical Services Division,
Oak Ridge Operations Office, Department of Energy, to
D.J. O'Keefe. "Post-Remedial Action Report for the Colonie
Interim Storage Site Vicinity Properties--1988,"
July 6, 1989.

II-62

Letter, P.J. Gross, Director, Technical Services Division,
Oak Ridge Operations Office, Department of Energy, to
P. Lebro. "Post-Remedial Action Report for the Colonie
Interim Storage Site Vicinity Properties--1988,"
July 6, 1989.

II-63

Letter, P.J. Gross, Director, Technical Services Division,
Oak Ridge Operations Office, Department of Energy, to
F.M. Maurel. "Post-Remedial Action Report for the Colonie
Interim Storage Site Vicinity Properties--1988,"
July 6, 1989.

II-64

Letter, P.J. Gross, Director, Technical Services Division,
Oak Ridge Operations Office, Department of Energy, to
L.W. Crannell. "Post-Remedial Action Report for the Colonie
Interim Storage Site Vicinity Properties--1988,"
July 6, 1989.

II-65

Letter, P.J. Gross, Director, Technical Services Division,
Oak Ridge Operations Office, Department of Energy, to
S. McNulty. "Post-Remedial Action Report for the Colonie
Interim Storage Site Vicinity Properties--1988,"
July 6, 1989.

II-66

Letter, P.J. Gross, Director, Technical Services Division,
Oak Ridge Operations Office, Department of Energy, to
P. Poggi. "Post-Remedial Action Report for the Colonie
Interim Storage Site Vicinity Properties--1988,"
July 6, 1989.

II-67

Letter, P.J. Gross, Director, Technical Services Division,
Oak Ridge Operations Office, Department of Energy, to
D.J. DeRubbo, Sr. "Post-Remedial Action Report for the
Colonie Interim Storage Site Vicinity Properties--1988,"
July 6, 1989.

II-68

Oak Ridge Associated Universities. Verification Surveys
of Non-Designated Vicinity Properties: Colonie Interim
Storage Site, Colonie, New York, ORAU 89/H-91,
Oak Ridge, Tenn., August 1989.

ref.

Oak Ridge Associated Universities. Verification of 1988
Remedial Actions: Vicinity Properties, Colonie Interim
Storage Site, Colonie, New York, ORAU 89/H-120,
August 1989.

ref.



Oak Ridge
 Associated Universities
 Post Office Box 117
 Oak Ridge, Tennessee 37831-0117
 April 12, 1989

Manpower Education,
 Research, and Training
 Division

Mr. James J. Fiore, Director
 Division of Facility and Site
 Decommissioning Projects
 Office of Nuclear Energy
 U.S. Department of Energy
 Washington, DC 20545

Subject: VERIFICATION OF COLONIE VICINTIY PROPERTY
 REMEDIAL ACTIONS - 1988 ACTIVITIES

Dear Mr. Fiore:

Oak Ridge Associated Universities (ORAU) has completed verification activities on eighteen (18) properties in the vicinity of the Colonie Interim Storage Site, remediated during 1988 by Bechtel National, Inc. Based on results of independent measurements and document reviews, it is ORAU's opinion that remedial action at the following properties have been effective in meeting the guidelines, established by the Department of Energy for this site.

- | | |
|---------------------|------------------------------------|
| I-90 Right-of-Way | 10-14 Kraft Avenue |
| 1101 Central Avenue | 4 Maplewood Avenue |
| 1110 Central Avenue | Niagara Mohawk Railroad Substation |
| 1143 Central Avenue | 10 North Elmhurst Avenue |
| 1145 Central Avenue | Railroad Avenue Property |
| 1149 Central Avenue | 1 Reynolds Avenue |
| 1177 Central Avenue | 16 Yardboro Avenue |
| 1178 Central Avenue | 20 Yardboro Avenue |
| 1200 Central Avenue | 80-110 Yardboro Avenue |

A report, describing the verification activities and findings, is being prepared.

If I can be of further assistance, please contact me at FTS 626-3305.

Sincerely,

James D. Berger, Manager
 Radiological Site Assessment Program

JDB:jls

- cc: A. Wallo, DOE/NE
 P. Gross, DOE/OR/TSD
 B. Seay, DOE/OR/TSD
 G. Hovey, BNI
~~R. Robertson, BNI~~
 J. Beck, BNI
 P. Cotten, ORAU

**Department of Energy**

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

July 6, 1989

Mr. Charles Carlson
State of New York
1220 Washington Avenue
Albany, NY 12232

Dear Mr. Carlson:

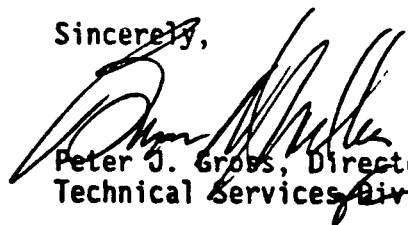
POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES--1988

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the properties at Exit 4 of I-90 and 80-110 Yardboro Avenue, Albany, NY has been satisfactorily completed. The properties are now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on the State properties and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on each of your properties will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,



Peter J. Gross, Director
Technical Services Division

Enclosure:
as stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department

**Department of Energy**

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

July 6, 1989

Mr. T. David Cameron
E. M. Cameron Lumber Corp.
1101 Central Avenue
Albany, NY 12205

Dear Mr. Cameron:

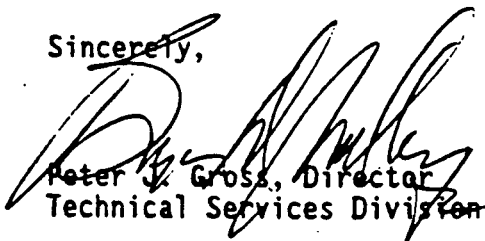
**POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY
PROPERTIES--1985 and 1988**

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the properties at 1101 and 1104 Central Avenue, Colonie, NY has been satisfactorily completed. The properties are now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action reports. These reports also describe the radiological surveys and remedial actions conducted on your properties and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on each of your properties will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

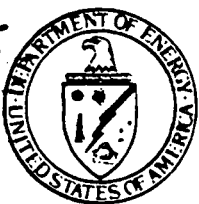
Sincerely,



Peter J. Gross, Director
Technical Services Division

Enclosures:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department



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Department of Energy

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

July 6, 1989

Mr. William Grimm
Grimm Building Materials
1110 Central Avenue
Albany, NY 12205

Dear Mr. Grimm:

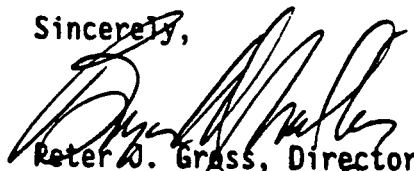
**POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY
PROPERTIES--1988**

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 1110 Central Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,



Peter J. Grass, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department

**Department of Energy**

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

July 6, 1989

Mr. Everett J. Marks
1143 Central Avenue
Albany, NY 12205

Dear Mr. Marks:

POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES--1988

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 1143 Central Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter J. Gross".

Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department



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Department of Energy

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

July 6, 1989

Mr. George J. Wheeler
1145 Central Avenue
Albany, NY 12205

Dear Mr. Wheeler:


POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES--1988

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 1145 Central Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,



Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department

**Department of Energy**

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

July 6, 1989

Mr. Salvatore J. and Ms. Angeline A. Rico
1149 Central Avenue
Albany, NY 12205

Dear Mr. and Ms. Rico:

POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES--1988

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 1149 Central Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,

A handwritten signature in cursive script, appearing to read "Peter J. Gross".

Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department

**Department of Energy**

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

July 6, 1989

Mr. Thomas J. Dott
Dott's Garage
1177 Central Avenue
Albany, NY 12205

Dear Mr. Dott:

POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES--1988

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 1177 Central Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter J. Gross".

Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department



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Department of Energy

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

July 6, 1989

Mr. Phillip F. Sidoti
1178 Central Avenue
Albany, NY 12205

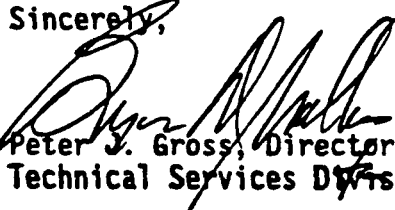
Dear Mr. Sidoti:

POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES--1988

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 1178 Central Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,

Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department



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Department of Energy

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

July 6, 1989

Mr. David J. Reilly
Reilly and Son Funeral Home
1200 Central Avenue
Albany, NY 12205

Dear Mr. Reilly:

POST-REMEDIATION ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES--1988

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 1200 Central Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,



Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department

063042
9-509**Department of Energy**

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

July 27, 1989

Mr. Gordon M. and Ms. Julia H. Kilby
Cynel Associates
1 Orchard Park Drive
Clifton Park, NY 12065

Dear Mr. and Ms. Kilby:

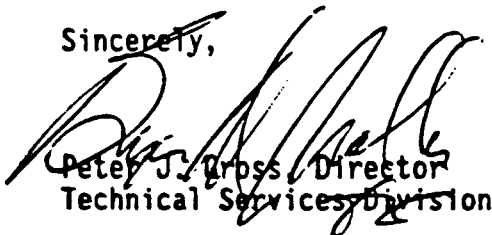
**POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY
PROPERTIES--1988**

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 10/14 Kraft Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,



Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department

**Department of Energy**

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

July 6, 1989

Mr. Daniel J. O'Keefe
4 Maplewood Drive
Albany, NY 12205

Dear Mr. O'Keefe:

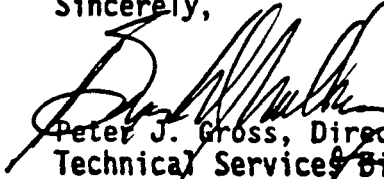
**POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY
PROPERTIES--1988**

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 4 Maplewood Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,



Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department



062349

89 · 438

Department of Energy

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

July 6, 1989

Mr. Peter Lebro
Niagara Mohawk Power Corp.
1125 Broadway
Albany, NY 11204

Dear Mr. Lebro:

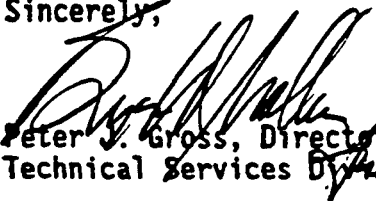
POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES--1988

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the Niagara Mohawk property between Railroad Avenue and Garden Lane in Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on the Niagara Mohawk property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,


Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department

**Department of Energy**

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

July 6, 1989

Ms. Frances M. Maurel
10 N. Elmhurst Avenue
Albany, NY 12205

Dear Ms. Maurel:

POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES--1988

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 10 N. Elmhurst Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter J. Gross".

Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department

**Department of Energy**

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

July 6, 1989

Mr. Lansing W. Crannell
24 Schalren Drive
Latham, NY 12110

Dear Mr. Crannell:

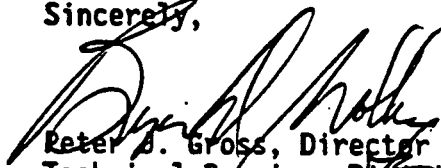
POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES--1988

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property on Railroad Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,



Peter A. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department

**Department of Energy**

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

July 6, 1989

Ms. Sharon McNulty
111 Knollwood Terrace
Albany, NY 12203

Dear Ms. McNulty:

**POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY
PROPERTIES--1988**

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 1 Reynolds Avenue, Colonie, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter J. Gross".

Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department



062353
Department of Energy
Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831-8723

68-442

July 6, 1989

Ms. Philamena Poggi
16 Yardboro Avenue
Albany, NY 12205

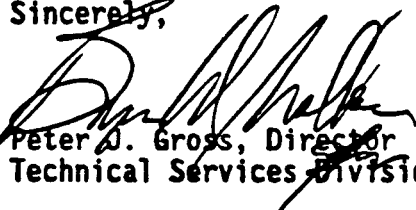
Dear Ms. Poggi:

**POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY
PROPERTIES--1988**

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 16 Yardboro Avenue, Albany, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,

Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department

**Department of Energy**

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

July 6, 1989

Mr. Daniel J. DeRubbo, Sr.
20 Yardboro Avenue
Albany, NY 12205

Dear Mr. DeRubbo:

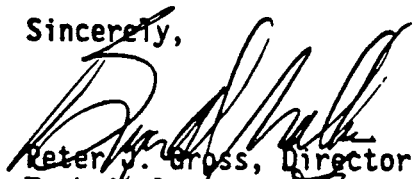
POST-REMEDIAL ACTION REPORT FOR THE COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES--1988

I am pleased to inform you that the results of the post-remedial action radiological survey have been verified and that remedial action on the property at 20 Yardboro Avenue, Albany, NY has been satisfactorily completed. The property is now in compliance with the standards and guidelines applicable to the remedial action activities at the Colonie Interim Storage Site. The data supporting this determination are in the enclosed post-remedial action report. This report also describes the radiological surveys and remedial actions conducted on your property and other properties in your area on which appropriate remedial action activities were required.

A formal certification statement on your property will be forwarded to you in the near future.

Thank you for your cooperation and if there are any questions, call me at (615) 576-0948.

Sincerely,



Peter J. Gross, Director
Technical Services Division

Enclosure:
As stated

cc: Paul Merges, NYSDEC
Kay Stone, USEPA, Region II
Honorable Fred Field, Supervisor, Town of Colonie
Honorable Tom Whalen, Mayor, City of Albany
Stephen Lukowski, Director
Albany County Health Department

2.8 STATE, COUNTY, AND LOCAL COMMENTS ON REMEDIAL ACTION

The State of New York, the Town of Colonie, the City of Albany, and the Albany County Health Department were kept fully informed of all DOE activities conducted at the 18 vicinity properties in Colonie and Albany, New York.

2.9 RESTRICTIONS

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

2.10 FEDERAL REGISTER NOTICE

This section contains a copy of the published Federal Register notice. It documents the certification that the 18 properties are in compliance with all applicable decontamination criteria and standards.

- Consideration of administrative matters.
- Discussion of any other business properly brought before the National Petroleum Council.
- Public comment (10-minute rule).
- Adjournment.

Public Participation: The meeting is open to the public. The chairperson of the Council is empowered to conduct the meeting in a fashion that will facilitate the orderly conduct of business. Any member of the public who wishes to file a written statement with the Council will be permitted to do so, either before or after the meeting. Members of the public who wish to make oral statements pertaining to agenda items should contact Margie D. Biggerstaff at the address or telephone number listed above. Requests must be received at least five days prior to the meeting and reasonable provision will be made to include the presentation on the agenda.

Transcripts: Available for public review and copying at the Public Reading Room, room 1E-190, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC., between 9 a.m. and 4 p.m. Monday through Friday, except Federal holidays.

Issued at Washington, DC., on June 6, 1990.

J. Robert Franklin,

Deputy Advisory Committee, Management Officer.

[FR Doc. 90-13435 Filed 6-8-90; 8:45 am]

BILLING CODE 6450-01-M

[FE Docket No. 90-13-NG]

Kimball Energy Corp.; Order Granting Blanket Authorization To Import Natural Gas From Canada

AGENCY: Department of Energy, Office of Fossil Energy.

ACTION: Notice of an order granting a blanket authorization to import natural gas from Canada.

SUMMARY: The Office of Fossil Energy (FE) of the Department of Energy (DOE) gives notice that it has issued an order granting Kimball Energy Corporation (Kimball) blanket authorization to import natural gas from Canada. The order issued in FE Docket No. 90-13-NG authorizes Kimball to import from Canada, using existing facilities, up to 75 Bcf of natural gas for short-term and spot sales over a two-year term beginning the date of first delivery. The order would extend Kimball's existing blanket import authority granted in DOE/ERA Opinion and Order No. 190 issued August 19, 1987.

A copy of the order is available for inspection and copying at the Office of Fuels Programs Docket Room, 3F-056, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC, (202) 586-0478. The Docket room is open

between the hours of 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

Issued in Washington, DC, June 5, 1990.

Clifford P. Tomaszewski,

Acting Deputy Assistant Secretary, for Fuels Programs, Office of Fossil Energy.

[FR Doc. 90-13395 Filed 6-8-90; 8:45 am]

BILLING CODE 6450-01-M

Certification of the Radiological Condition of Eighteen Vicinity Properties Located in Colonie and Albany, NY

AGENCY: Office of Environmental Restoration and Waste Management, Department of Energy.

ACTION: Notice of certification.

SUMMARY: The Department of Energy has completed radiological surveys and undertook a decontamination research and development project to decontaminate 18 properties in Colonie and Albany, New York. The properties were found to contain quantities of radioactive material from uranium processing activities conducted at the former National Lead (NL) Industries Plant. Decontamination was completed under the Formerly Utilized Sites Remedial Action Program (FUSRAP). Excavated contaminated materials are being stored at the original manufacturing plant site, now referred to as the Colonie Interim Storage Site (CISS). Radiological conditions at the properties are certified to be in accordance with applicable radiological guidelines for the protection of the public or property occupants.

FOR FURTHER INFORMATION CONTACT: James J. Fiore, Acting Director, Decontamination and Decommissioning Division, Office of Environmental Restoration and Waste Management (EM-423), U.S. Department of Energy, Washington, DC 20545, 301-353-2802.

SUPPLEMENTARY INFORMATION: The Department of Energy (DOE), Office of Environmental Restoration and Waste Management, has implemented a decontamination research and development project (the project) in the Albany and Colonie, New York, area. This project initially was authorized by Congress in the Energy and Water Development Appropriations Act for fiscal year 1984. Congress extended this authorization in the Energy Water Development Appropriation Acts for subsequent fiscal years. The ultimate objective of the project is to ensure that any properties contaminated as a result of activities at the former National Lead

(NL) Industries facility can be certified to be within current applicable radiological guidelines for the protection of the public or property occupants.

Colonie Interim Storage Site (CISS) is a DOE Formerly Utilized Sites Remedial Action Program (FUSRAP) site located in the Town of Colonie, New York, at 1130 Central Avenue. It is approximately 6.44 km (4 mi.) northwest of downtown Albany and about 4.83 km (3 mi.) southeast of the Village of Colonie. Central Avenue runs along the northeastern side of the CISS property; the Conrail main line and a railroad siding border it on the southern side. Residential properties lie beyond the railroad. Most of the 4.53-ha (11.2-acre) CISS was occupied by the former NL Industries, Inc., property and buildings formerly used by NL to manufacture a variety of projects from depleted uranium. The remaining 0.81 ha (2 acres) of the site, donated to DOE by the Niagara-Mohawk Power Corporation in 1985, lie to the west of the original property. Land use in the vicinity of CISS is primarily industrial and residential.

During the 1950s, NL began manufacturing uranium products at its Colonie plant, operating under a license issued by the Atomic Energy Commission (AEC) a statutory predecessor of DOE. Between 1958 and 1968, NL held numerous AEC contracts for the fabrication of slightly enriched (in the uranium-235 isotope) uranium fuel elements and chemical processing of nonirradiated, slightly enriched uranium scrap. After termination of the AEC contracts, work at the NL plant was limited to fabrication of shielding components, ballast weights, and projectiles from depleted uranium.

On February 15, 1980, the New York Supreme Court issued an order temporarily restraining NL from operating its Colonie facility because the facility released uranium compounds into the air. The temporary restraining order was amended on May 12, 1980, to allow NL to continue operating on a limited basis. The amended order also required the company to initiate an independent investigation to assess all adverse environmental conditions in soils and on properties in the vicinity of the facility that may have been caused by the airborne discharge of radioactive particulates from the plant. Operations at the plant were halted in the spring of 1984. These "vicinity properties" were included as part of FUSRAP by DOE after Congress initially authorized DOE in the Energy and Water Development Appropriations Act for Fiscal Year 1984

to conduct a decontamination research and development project at four sites in New York, New Jersey, and Missouri, including the site of the former NL plant and its vicinity properties. Following plant closure, DOE took possession of the plant to begin the cleanup process. Most of the radioactive contamination on the vicinity properties is from airborne releases of uranium from the processing operations at the plant. FUSRAP is currently being managed by DOE's Oak Ridge Operations Office.

Bechtel National, Inc. (BNI) is the project management contractor (PMC) and acts as DOE's contractor in the planning, management, and implementation of FUSRAP. Acting as PMC, BNI has responsibility for conducting project activities at CISS as well as at the off-site or vicinity properties.

Teledyne Isotopes surveyed the neighborhood surrounding the NL plant for radioactivity in 1980 and determined that uranium released into the air through the emission stacks had been deposited on residential and commercial properties and structures. Teledyne's findings also showed that the majority of the contamination was to the northwest and southeast (i.e., in the direction of the prevailing winds).

In October 1983, more detailed radiological surveys of the individual properties surrounding the NL plant (including private residences) were performed by Oak Ridge National Laboratory (ORNL). These surveys were designed to locate all properties on which uranium contamination exceeded applicable radiological guidelines.

DOE developed a plan to remove the contamination in these areas. The priority for the decontamination was first to remove contaminated materials from residential properties, and then from commercial properties. These materials were to be stored at CISS.

Decontamination was conducted at 11 vicinity properties during 1984 and at 24 in 1985. In 1988, decontamination was conducted at 18 of the remaining properties; however, during 1988 two additional properties (4 Maplewood Avenue and 16 Yardboro Avenue) were identified as being contaminated and were subsequently designated and decontaminated. This brings the total number of vicinity properties to 55, and the total number remediated in 1988 to 18. Additionally, one other property is suspected to be contaminated but has not yet been surveyed or designated. Three remaining properties border the site and will be decontaminated when decontamination is conducted at CISS.

The certification docket will be available for review between 9 a.m. and

4 p.m., Monday through Friday (except Federal holidays) in the DOE Public Reading Room located in room 1E-190 of the Forrestal Building, 1000 Independence Avenue SW., Washington, D.C. Copies will also be available in the DOE Public Document Room at the Oak Ridge Operations Office, Oak Ridge, Tennessee, and the Colonie Library, 629 Albany-Shaker Road, Loudonville, New York.

The Department of Energy, through the Oak Ridge Operations Office, Technical Services Division, has issued the following statement:

Statement of Certification: Eighteen Properties Associated with the Former National Lead Industries Activities in Colonie and Albany, New York.

The Oak Ridge Operations Office, Technical Services Division, has reviewed the radiological data obtained following decontamination at the 18 subject properties. Based on this review, DOE has certified that the properties listed below are in compliance with applicable radiological guidelines for the protection of the public and property occupants.

The properties listed by their street addresses, as identified in the radiological characterization survey reports prepared by ORNL. Accordingly, the following properties are released from FUSRAP:

Exit 4, I-90 Right-of-Way Property, City of Albany, described in Right-of-Way maps M417, page 484; M416, page 483; M415, page 482; M414, page 481; M414, page 480; M449, page 519; M423, page 490; and M-1-C, page 587.

1101 Central Avenue, Town of Colonie, described in the deed, book 634, page 304 and book 614, page 112.

1110 Central Avenue, City of Albany, described in the deed, liber 1170, page 430 in the Town of Colonie and liber 1170, page 395 in the City of Albany.

1143 Central Avenue, Town of Colonie, described in the deed, liber 2318, page 515.

1145 Central Avenue, Town of Colonie, described in the deed, liber 2165, page 353.

1149 Central Avenue, Town of Colonie, described in the deed, liber 1965, page 339.

1177 Central Avenue, Town of Colonie, described in the deed, book 1870, pages 223-233 and book 994, page 408.

1178 Central Avenue, Town of Colonie, described in the deed, book 1240, page 455.

1200 Central Avenue, Town of Colonie, described in the deed, liber 2241, page 637 and liber 1387, page 355.

10/14 Kraft Avenue, Town of Colonie, described in the deed, liber 2323, page 1.

4 Maplewood Avenue, Town of Colonie, described in the deed, liber 2080, page 305.
Niagara-Mohawk Property, Railroad Avenue, Town of Colonie, described in the deed, book 915, page 251.

10 N. Elmhurst, Town of Colonie, described in the deed, 2185, page 1001.

Cranell Property, Railroad Avenue, Town of Colonie, described in the deed, liber 2107, page 617.

1 Reynolds Avenue, Town of Colonie, described in the deed, 2314, page 164.

16 Yardboro Avenue, City of Albany, described in the deed, liber 2205, page 256.

20 Yardboro Avenue, City of Albany, described in the deed, liber 1488, page 213.

80-110 Yardboro Avenue, City of Albany, described in the deed, liber 2037, page 991, and liber 2302, page 361.

Dated: May 23, 1990.

R.P. Whitfield,

Associate Director, Office of Environmental Restoration.

[FR Doc. 90-13436 Filed 6-8-90; 8:45 am]

BILLING CODE 6450-01-M

ENVIRONMENTAL PROTECTION AGENCY

(FRL-3786-2)

State Water Quality Standards, Virginia

AGENCY: Environmental Protection Agency.

ACTION: Notice of proposed amendment of final listing decisions for the Commonwealth of Virginia under section 304(1) of the Clean Water Act.

SUMMARY: Notice is hereby given of the United States Environmental Protection Agency's (U.S. EPA) proposed decision to amend the final listing decisions for the Commonwealth of Virginia under section 304(1) of the Clean Water Act as amended by the Water Quality Act of 1987. This proposed decision is to delete the Westvaco Corporation's Covington Mill from the 304(1)(1)(C) list and the Jackson River, its receiving stream, from the 304(1)(1)(B) list. Comments concerning this proposed decision must be received on or before July 11, 1990.

DATES: Comments are due on or before July 11, 1990.

ADDRESSES: Comments should be submitted to the address given below. The administrative record containing the U.S. EPA's documentation supporting its proposed amendment to the final lists will be on file and may be inspected at the U.S. EPA Region III office between the hours of 9 a.m. and 4 p.m., Monday through Friday except holidays. To make arrangements to examine the administrative record contact the person named below.

Thomas Henry (3WMS3), Permits Enforcement Branch, U.S. EPA, Region III, 841 Chestnut Building, Philadelphia, PA 19107, telephone (215) 597-8243. (FTS) 597-8243.

SUPPLEMENTARY INFORMATION: Section 304(1)(3) of the Clean Water Act (CWA)

2.11 APPROVED CERTIFICATION STATEMENTS

The following memorandum and statements document the certification of each of the 18 subject properties for future use.

MAY 23 1990

EM-423

Recommendation for Certification of Remedial Action for 18 Properties Associated with the Former National Lead Industries Activities in Colonie and Albany, New York

R. P. Whitfield
Associate Director
Office of Environmental
Restoration (EM-40)

I am attaching for your signature the original and three copies of the Federal Register Notice for 18 properties associated with the former National Lead (NL) Industries in Colonie, New York.

During the 1950s, NL began manufacturing uranium products at the Colonie plant, operating under a license issued by the Atomic Energy Commission (AEC), predecessor of the Department of Energy (DOE). Between 1958 and 1968, NL held numerous contracts for fabrication of slightly enriched (in the uranium-235 isotope) uranium fuel elements and chemical processing of non-irradiated, slightly enriched uranium scrap. After termination of the AEC contracts, work at the NL plant was limited to fabrication of shielding components, ballast weights, and projectiles from depleted uranium.

On February 15, 1980, the New York State Supreme Court issued an order temporarily restraining NL from operating its Colonie facility on the basis that the facility emitted contaminants as airborne releases of uranium compounds. The temporary restraining order was amended on May 12, 1980, to allow NL to continue operating on a limited basis. The amended order also required the company to initiate an independent investigation to assess all adverse environmental conditions in soils and on properties in the vicinity of the facility that may have been caused by the airborne discharge of radioactive particulates from the plant. Operations at the Plant were halted in the spring of 1984.

Teledyne Isotopes surveyed the neighborhood surrounding the NL plant for radioactivity in 1980 and determined that uranium released into the air had been deposited on residential and commercial properties and structures during the course of the plant's operations.

In October 1983, more detailed radiological surveys of the individual properties surrounding the NL plant (including private residences) were performed by Oak Ridge National Laboratory. These surveys were designed to further characterize the site and identify contamination at residential and commercial properties.

During 1988, the Office of Nuclear Energy performed remedial actions at 18 properties associated with the former NL Industries. These properties are:

Exit 4, I-90 Right-of-Way Property, City of Albany, described in Right-of-Way maps M417, page 484; M416, page 483; M415, page 482; M414, page 481; M414, page 480; M449, page 519; M423, page 490; and M-1-C, page 587.

1101 Central Avenue, Town of Colonie, described in the deed, book 634, page 304 and book 614, page 112.

1110 Central Avenue, City of Albany, described in the deed, liber 1170, page 430 in the Town of Colonie and liber 1170, page 395 in the City of Albany.

1143 Central Avenue, Town of Colonie, described in the deed, liber 2318, page 515.

1145 Central Avenue, Town of Colonie, described in the deed, liber 2165, page 353.

1149 Central Avenue, Town of Colonie, described in the deed, liber 1965, page 339.

1177 Central Avenue, Town of Colonie, described in the deed, book 1870, pages 231-233 and book 994, page 408.

1178 Central Avenue, Town of Colonie, described in the deed, book 1240, page 455.

1200 Central Avenue, Town of Colonie, described in the deed, liber 2241, page 637 and liber 1387, page 355.

10/14 Kraft Avenue, Town of Colonie, described in the deed, liber 2323, page 1.

4 Maplewood Avenue, Town of Colonie, described in the deed, liber 2080, page 305.

Niagara-Mohawk Property, Railroad Avenue, Town of Colonie, described in the deed, book 915, page 251.

10 N. Elmhurst, Town of Colonie, described in the deed, book 2185, page 1001.

Crannell Property, Railroad Avenue, Town of Colonie, described in the deed, liber 2107, page 617.

1 Reynolds Avenue, Town of Colonie, described in the deed, book 2314, page 164.

3 EM-423
WAW
Williams
5/23/90
EM-423
FW
Fiore
5/23/90

16 Yardboro Avenue, City of Albany, described in the deed, liber 2205, page 256.

20 Yardboro Avenue, City of Albany, described in the deed, liber 1488, page 213.

80-110 Yardboro Avenue, City of Albany, described in the deed, liber 2037, page 991, and liber 2302, page 361.

Based on a review of all documents related to these properties, we have concluded that they should be certified to be in compliance with criteria and standards established for the remedial action conducted at Colonie. These criteria were established in conjunction with the State of New York, with review by the U.S. Environmental Protection Agency.

The Decontamination and Decommissioning Division has provided the attached docket to effect the certification of the subject properties.

Following your approval of the certification, this office and/or the Oak Ridge Operations Office, Technical Services Division, will notify interested State and local agencies, the public, local land offices, and the specific property owners of the certification actions by correspondence and local newspaper announcements, as appropriate. The documents transmitted with the 18 statements of certification and the Federal Register notice will be compiled in final docket form by the Decontamination and Decommissioning Division for retention in accordance with DOE Order 1324.2 (Disposal Schedule 25).

1st James Wagoner
James J. Fiore
Acting Director
for Decontamination and
Decommissioning Division
Office of Environmental Restoration
and Waste Management

Attachments

- bcc:
- OTS
- EM-40 (2)
- EM-423 reader
- Williams reader

EM-423:AWilliams:ph:353-5243:5/23/90:whitfiel.fr

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

Exit 4, I-90 Right-of-Way Property, City of Albany, described in Right-of-Way maps M417 page 484; M416, page 483; M415, page 482; M414, page 481; M414, page 480; M449, page 519; M423, page 490; and M-1-C, page 587.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *ums*

L. K. Price

L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: _____

2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

1101 Central Avenue, Town of Colonie, described in the deed, book 634, page 304 and book 614, page 112.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *WMS*

L. K. Price

L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: 2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

1110 Central Avenue, City of Albany, described in the deed, liber 1170, page 430 in the Town of Colonie and liber 1170, page 395 in the City of Albany.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By:



**L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy**

Date:

2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

1143 Central Avenue, Town of Colonie, described in the deed, liber 2318, page 515.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

BY: *WMA*

L. K. Price
L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

DATE: *2/20/90*

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

1145 Central Avenue, Town of Colonie, described in the deed, liber 2165, page 353.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *was*

L.K. Price

L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: _____

2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

1149 Central Avenue, Town of Colonie, described in the deed, liber 1965, page 339.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *WAP*

L. K. Price
L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: 2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

1177 Central Avenue, Town of Colonie, described in the deed, book 1870, pages 231-233 and book 994, page 408.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *WNA*

L. K. Price

L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: _____

2/30/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

1178 Central Avenue, Town of Colonie, described in the deed, book 1240, page 455.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *www*

L. K. Price
L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: *2/29/90*

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

1200 Central Avenue, Town of Colonie, described in the deed, liber 2241, page 637 and liber 1387, page 355.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

BY: *L.K. Price*
L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: 2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

10/14 Kraft Avenue, Town of Colonie, described in the deed, liber 2323, page 1.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *L.K. Price*
L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: 2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

4 Maplewood Avenue, Town of Colonie, described in the deed, liber 2080, page 305.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *WMP*

L.K. Price

L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: _____

2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

Niagara-Mohawk Property, Railroad Avenue, Town of Colonie, described in the deed, book 915, page 251.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *L.K. Price*
L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: 2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

10 N. Elmhurst Avenue, Town of Colonie, described in the deed, book 2185, page 1001.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *WMP*

L. K. Price

L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: 2/20/10

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

Crannell Property, Railroad Avenue, Town of Colonie, described in the deed, liber 2107, page 617.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *WMP*

L. K. Price

L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: _____

2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

1 Reynolds Avenue, Town of Colonie, described in the deed, book 2314, page 164.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *L.K. Price*
L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: 2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

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16 Yardboro Avenue, City of Albany, described in the deed, liber 2205, page 256.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *unt*

L.K. Price
L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: 2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

20 Yardboro Avenue, City of Albany, described in the deed, liber 1488, page 213.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *WHP*

L. K. Price
L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: 2/20/90

**STATEMENT OF CERTIFICATION: VICINITY PROPERTY
ASSOCIATED WITH THE FORMER NATIONAL LEAD INDUSTRIES ACTIVITIES**

The U.S. Department of Energy, Oak Ridge Operations Office, Technical Services Division, has reviewed and analyzed the radiological data obtained following remedial action at 18 properties that were contaminated by material similar to that processed at the former National Lead (NL) Industries facility in Colonie, New York. Based on this analysis of all data collected, the Department of Energy (DOE) certifies that the following property is in compliance with applicable DOE decontamination criteria and standards:

80-110 Yardboro Avenue, City of Albany, described in the deed, liber 2037, page 991, and liber 2302, page 361.

This certification of compliance provides assurance that future use of the property will result in no radiological exposure above applicable criteria and standards established to protect members of the general public or site occupants.

By: *L.K. Price*
L.K. Price, Director
Technical Services Division
Oak Ridge Operations Office
U.S. Department of Energy

Date: 2/20/80

Exhibit III *Diagrams of the Remedial Action Performed at the Colonie Interim Storage Site Vicinity Properties in Colonie and Albany, New York, in 1988*

△

EXHIBIT III

DIAGRAMS OF THE REMEDIAL ACTION PERFORMED AT THE
COLONIE INTERIM STORAGE SITE VICINITY PROPERTIES
IN COLONIE AND ALBANY, NEW YORK, IN 1988

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

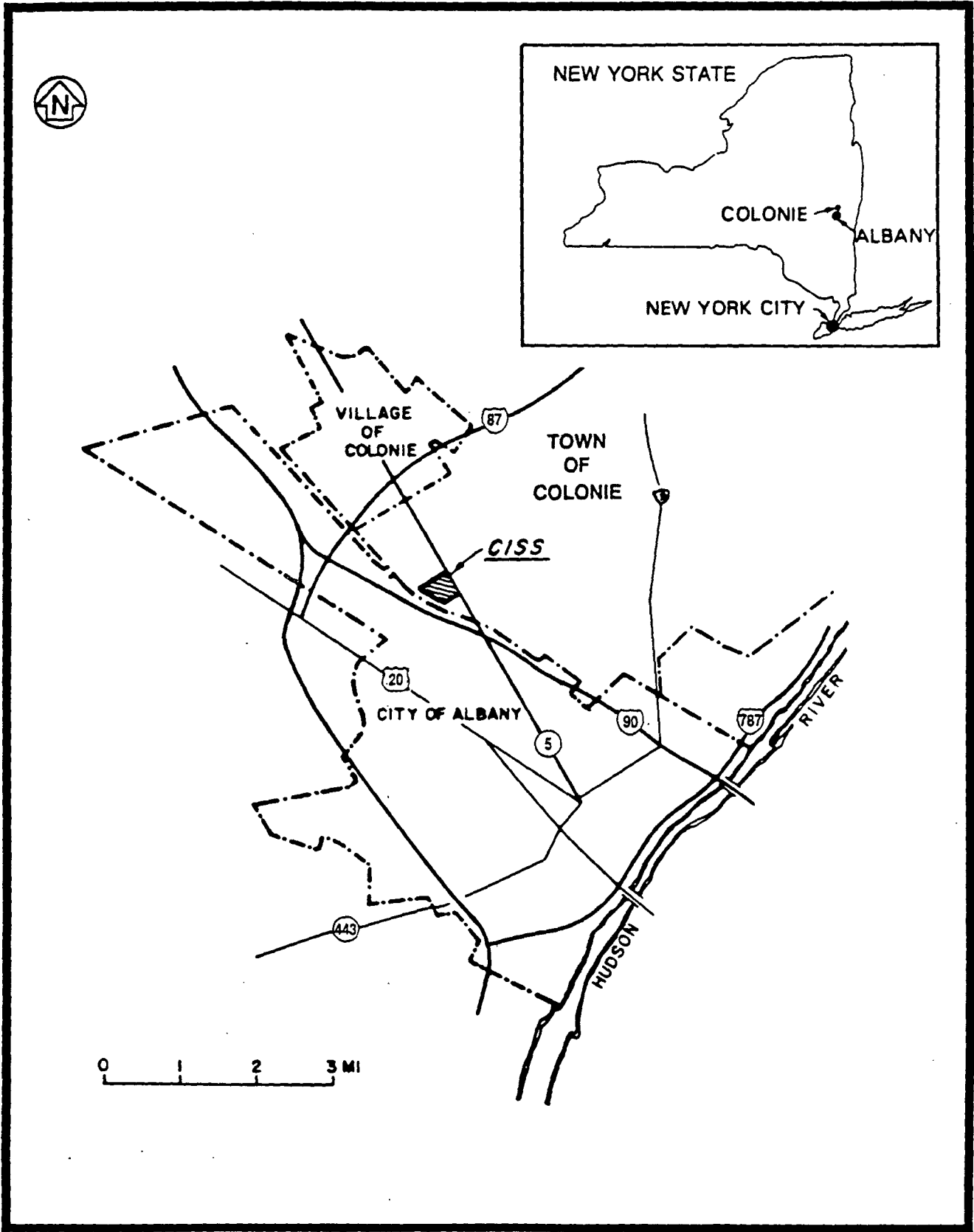


FIGURE III-1 REGIONAL SETTING OF CISS

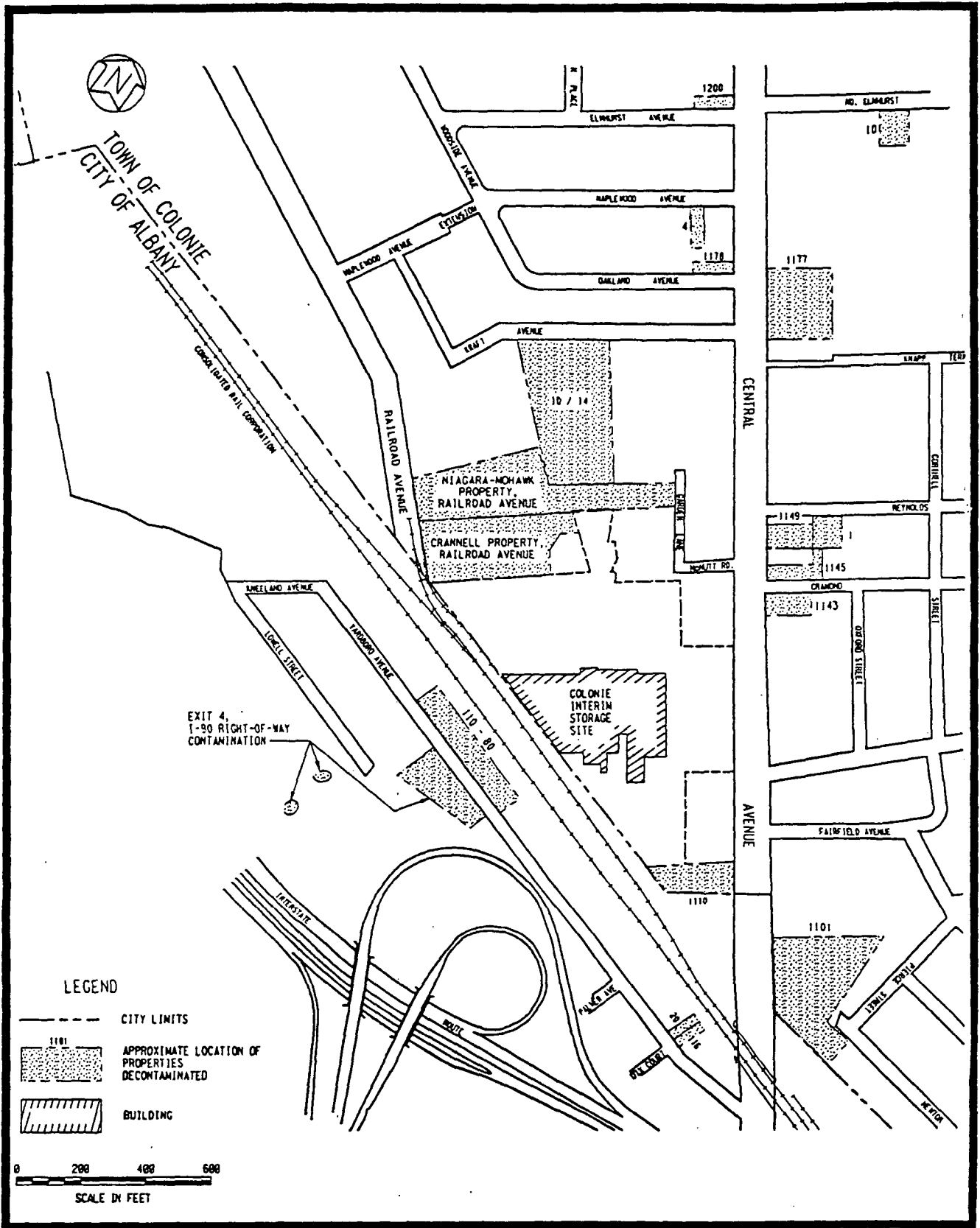


FIGURE III-2 COLONIE VICINITY PROPERTIES REMEDIATED IN 1988

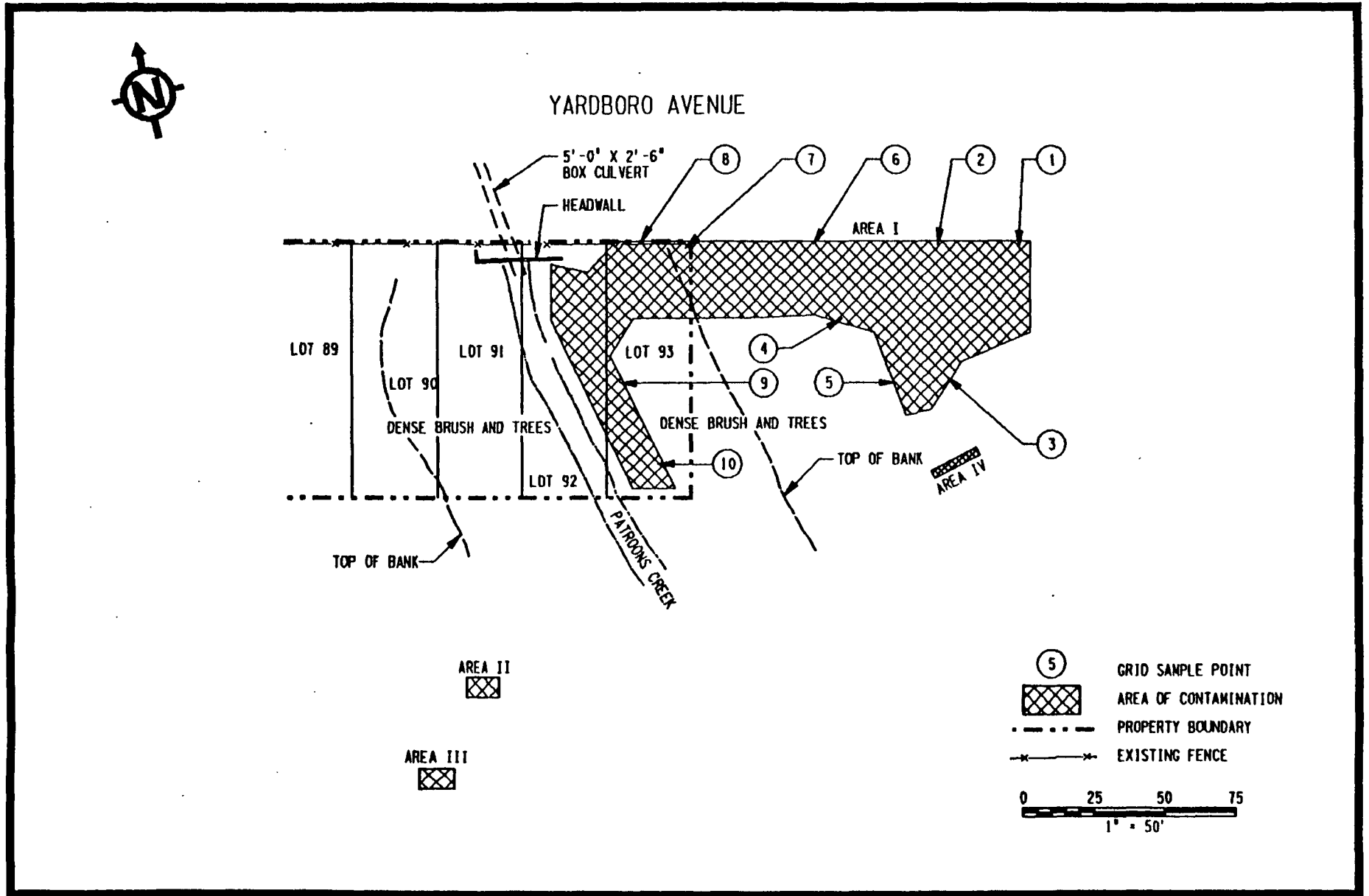


FIGURE III-3 REMEDIAL ACTION AT EXIT 4, I-90 RIGHT-OF-WAY PROPERTY (AL212)

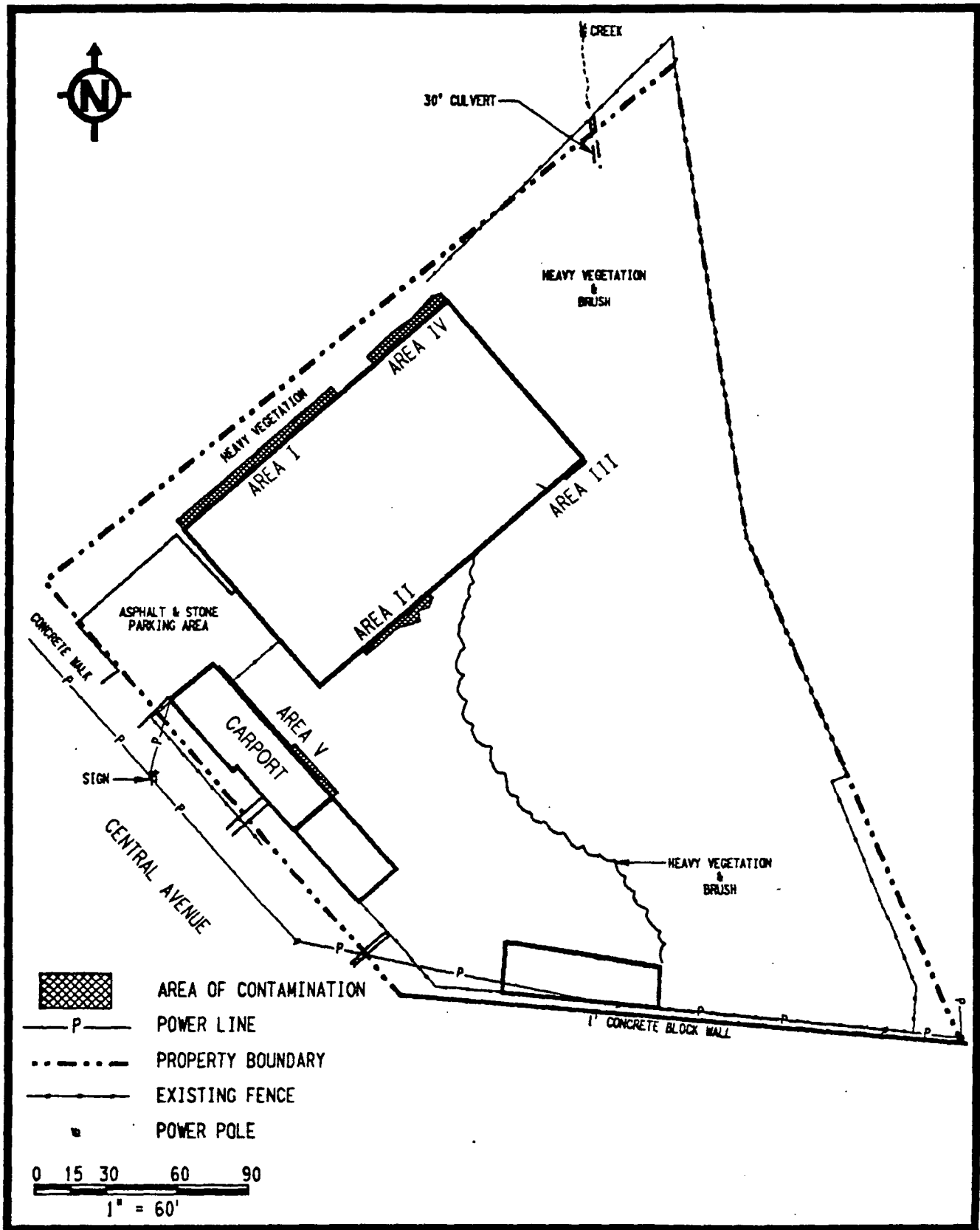


FIGURE III-4 REMEDIAL ACTION AT 1101 CENTRAL AVENUE (AL084)

S-III

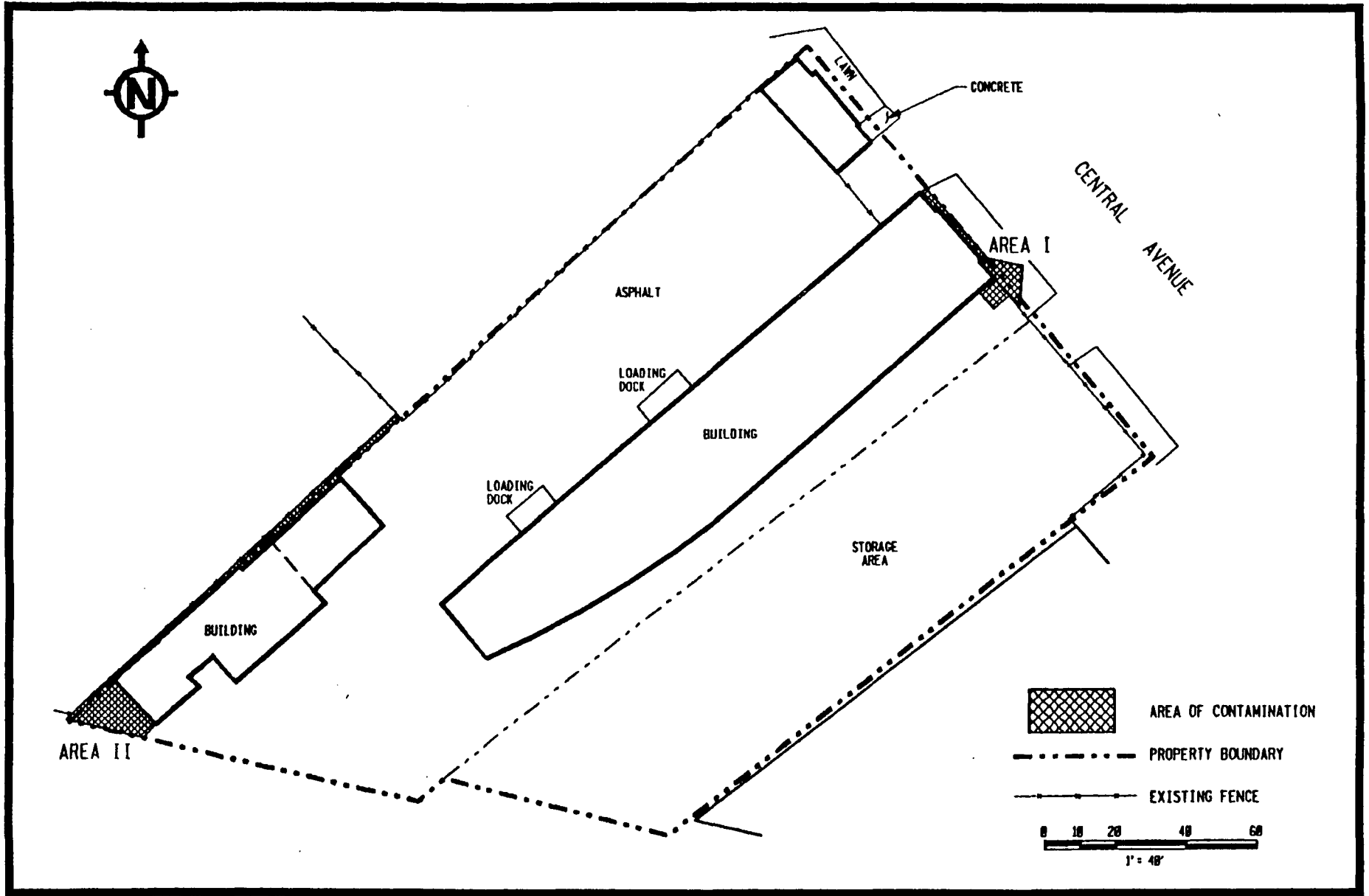


FIGURE III-5 REMEDIAL ACTION AT 1110 CENTRAL AVENUE (AL215)

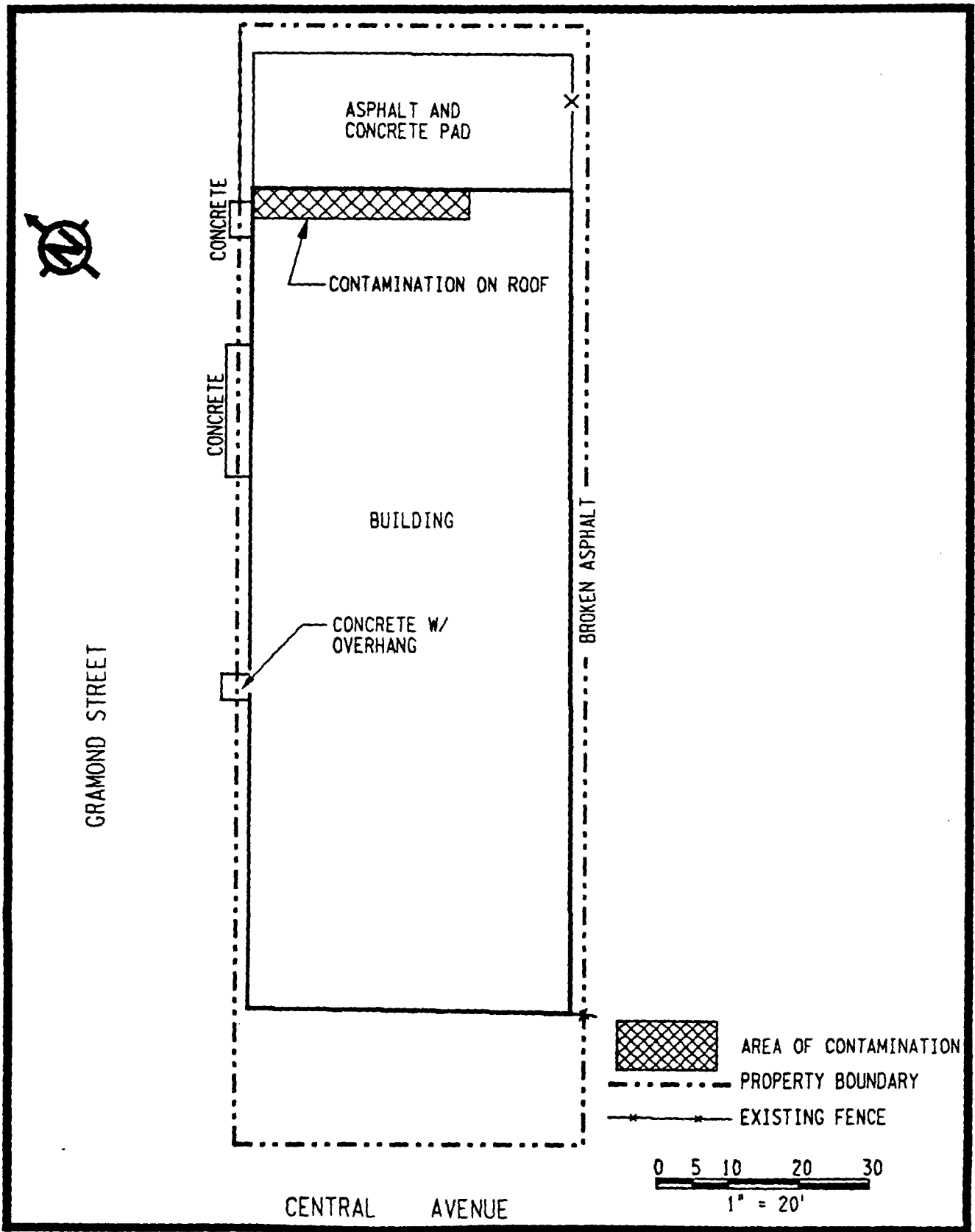


FIGURE III-6 REMEDIAL ACTION AT 1143 CENTRAL AVENUE (AL098)

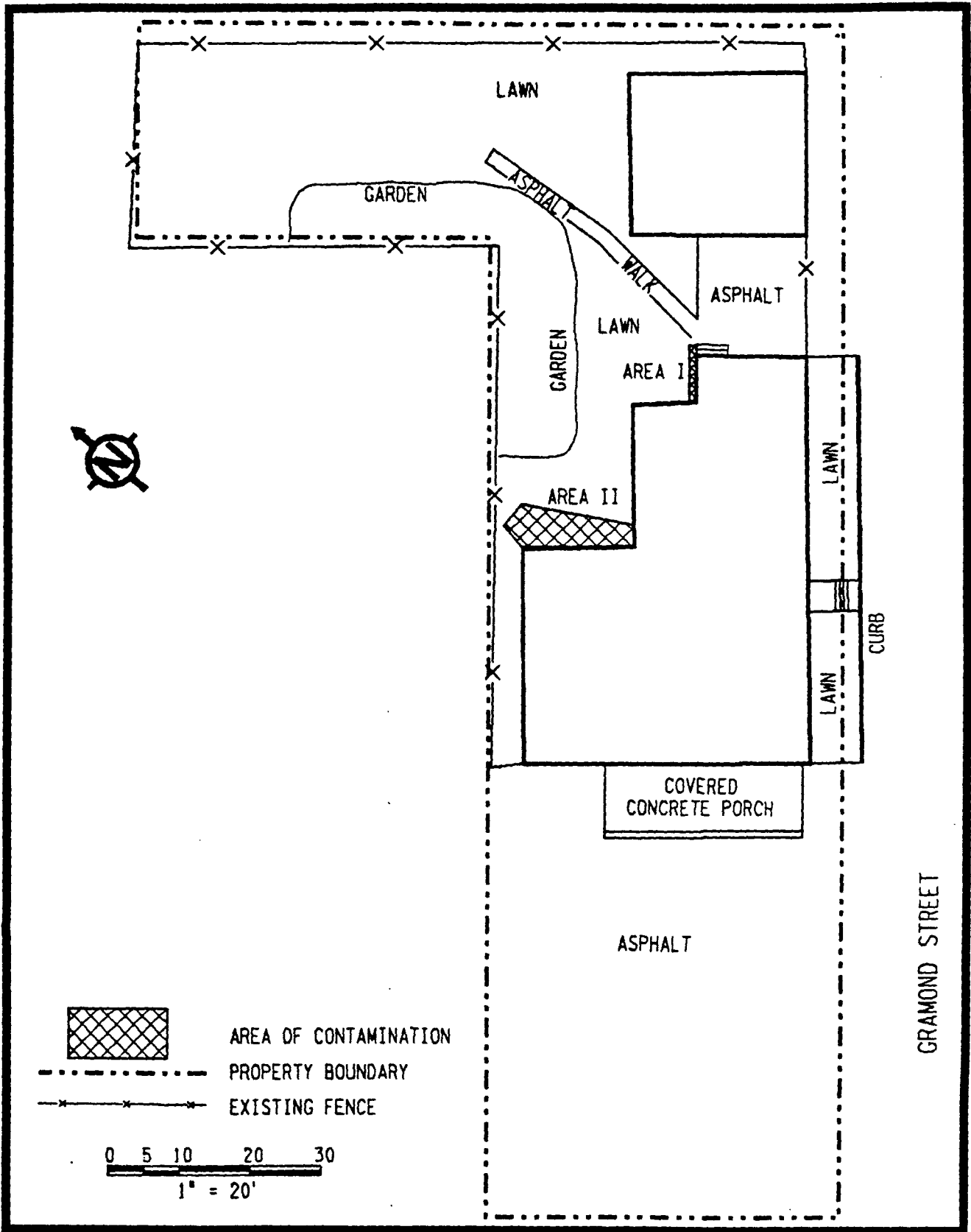


FIGURE III-7 REMEDIAL ACTION AT 1145 CENTRAL AVENUE (AL100)

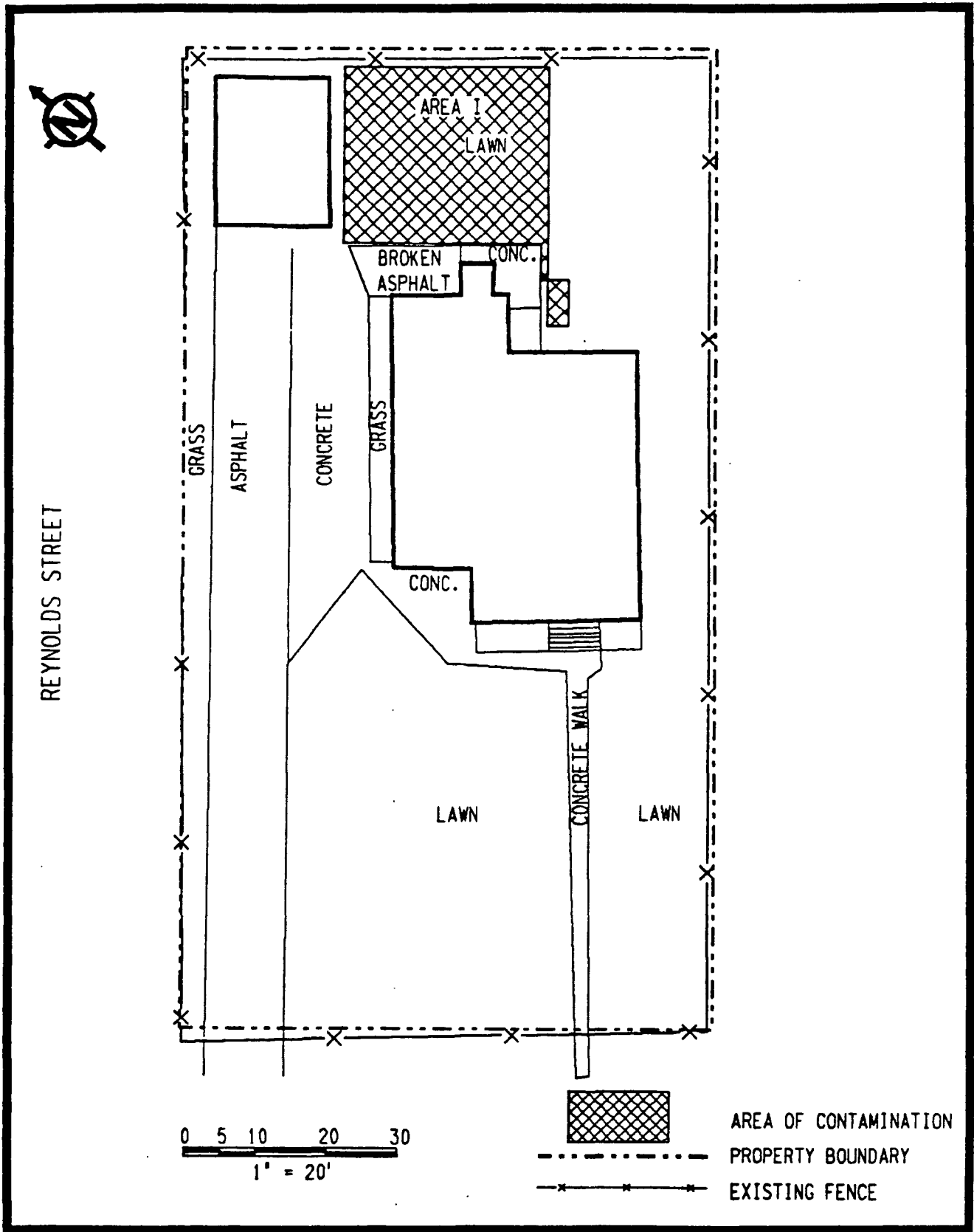


FIGURE III-8 REMEDIAL ACTION AT 1149 CENTRAL AVENUE (AL102)

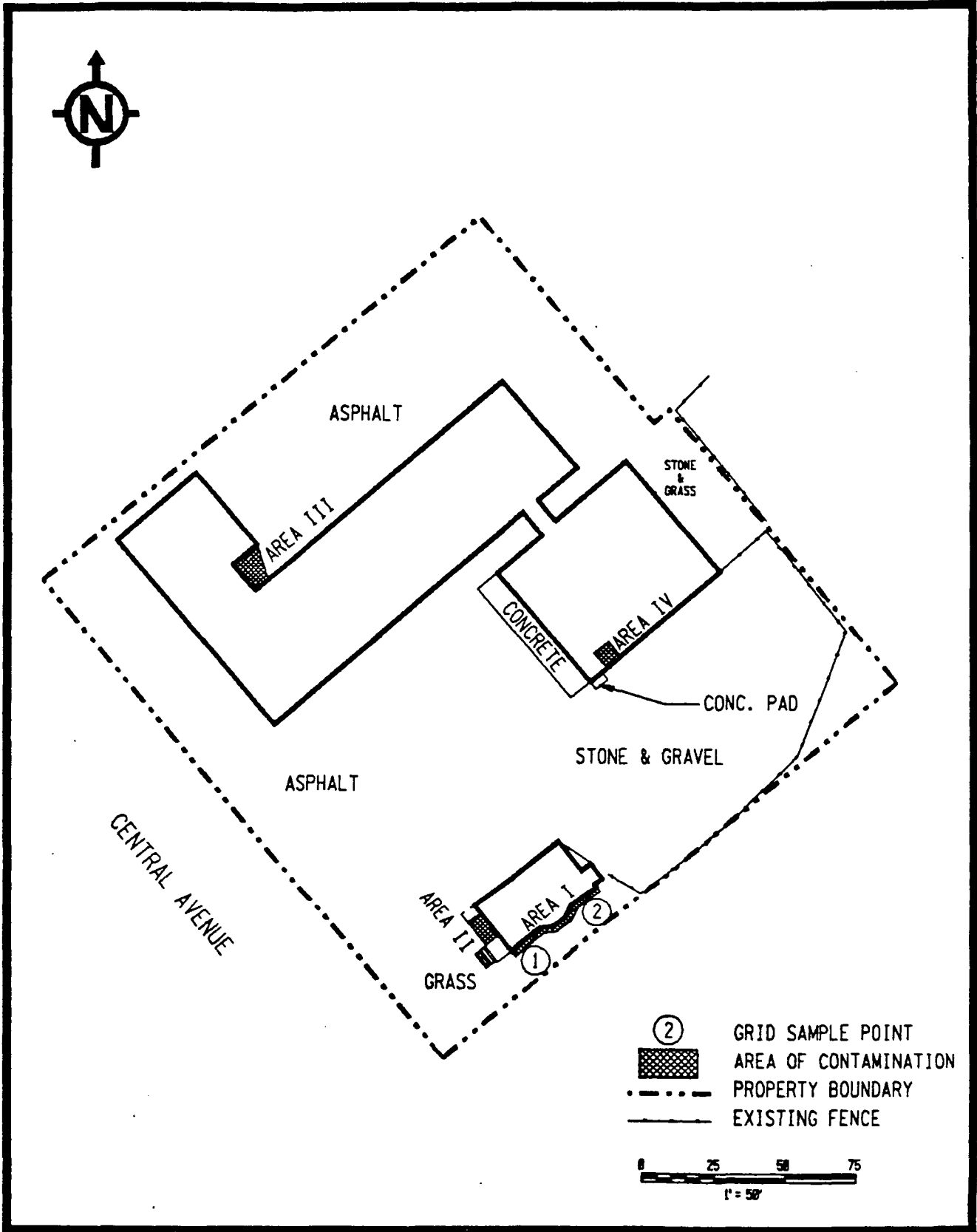


FIGURE III-9 REMEDIAL ACTION AT 1177 CENTRAL AVENUE (AL130)

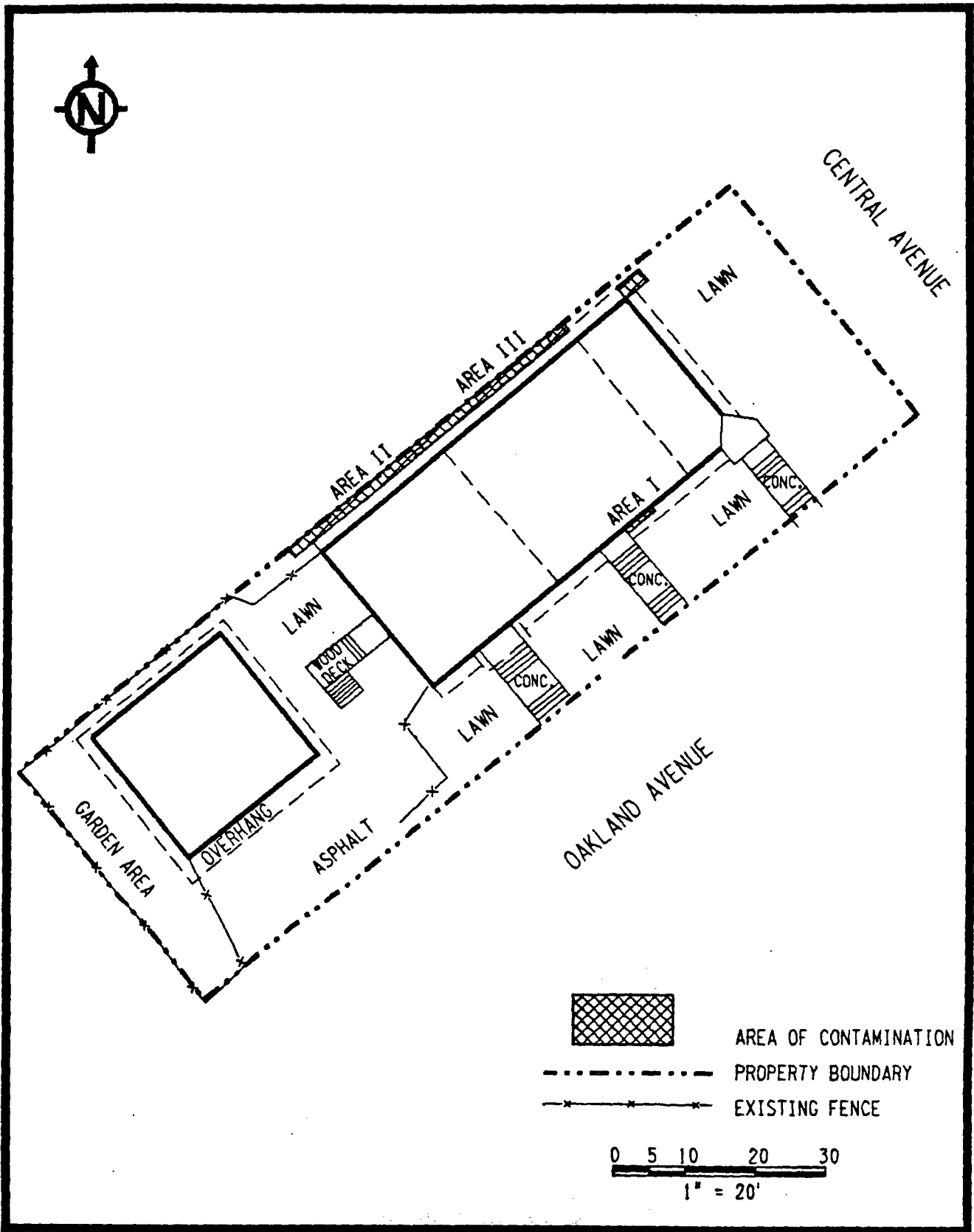


FIGURE III-10 REMEDIAL ACTION AT 1178 CENTRAL AVENUE (AL105)

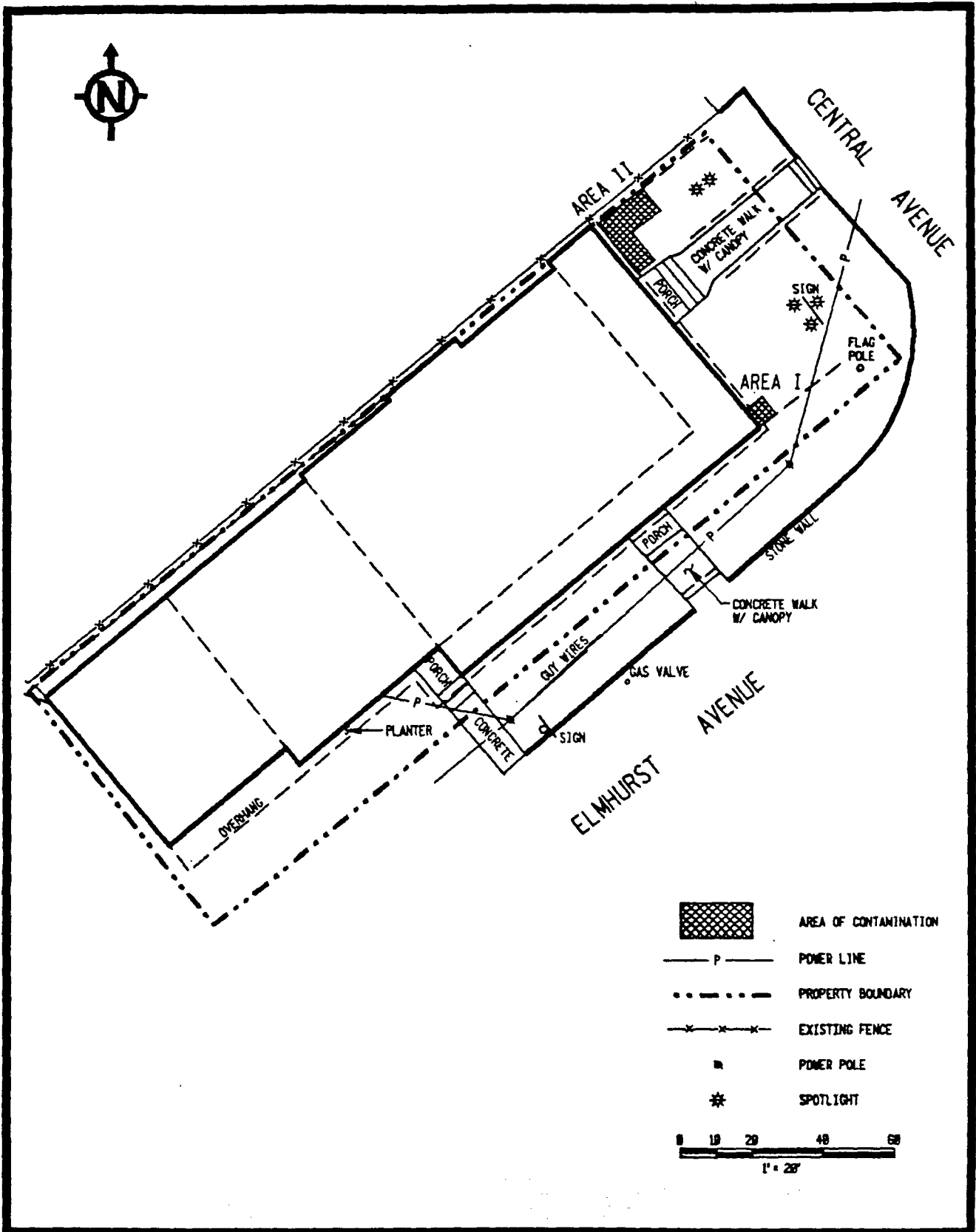


FIGURE III-11 REMEDIAL ACTION AT 1200 CENTRAL AVENUE (AL106)

III-14

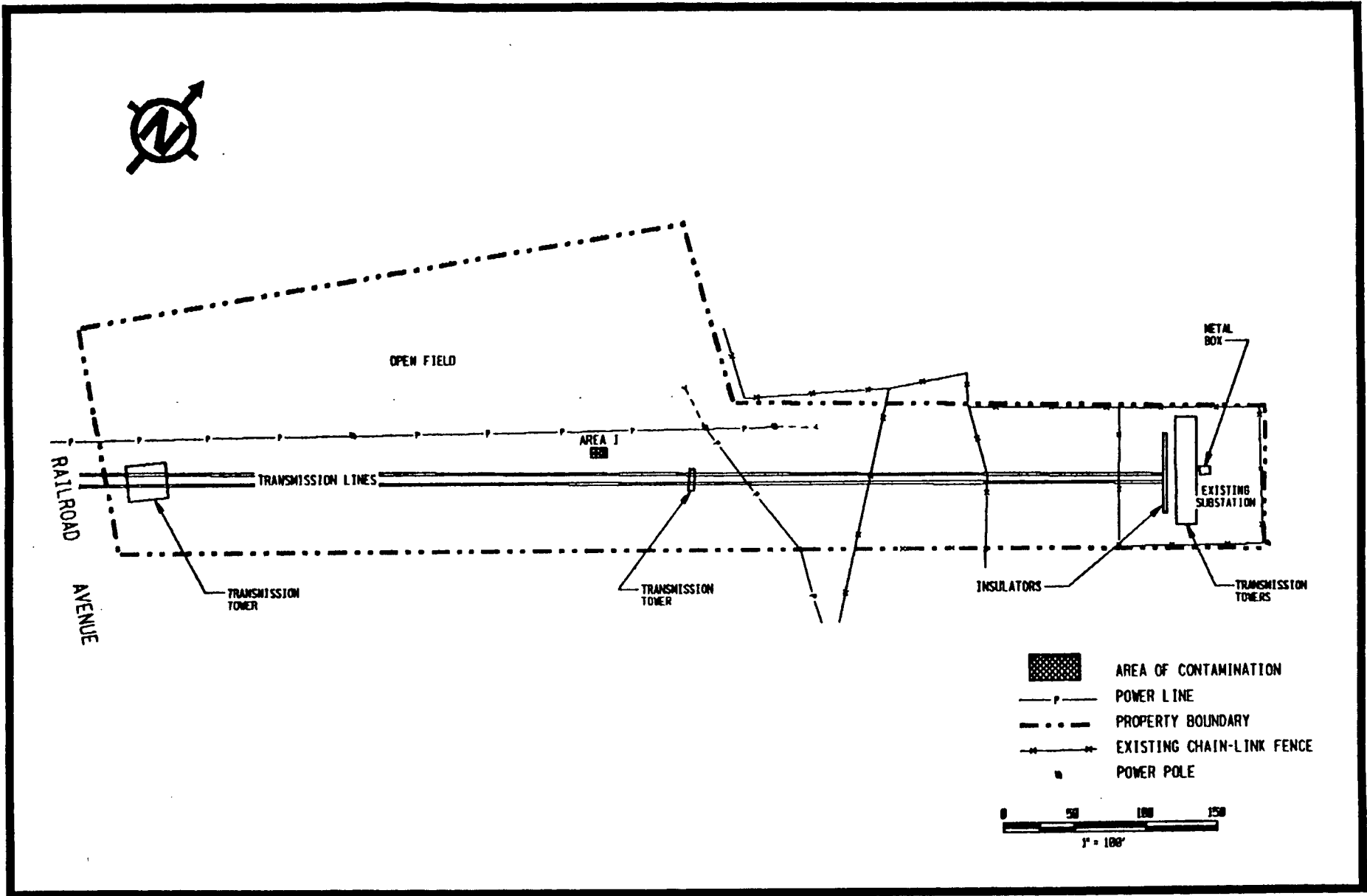


FIGURE III-14 REMEDIAL ACTION AT NIAGARA-MOHAWK PROPERTY,
RAILROAD AVENUE (AL218)

III-15

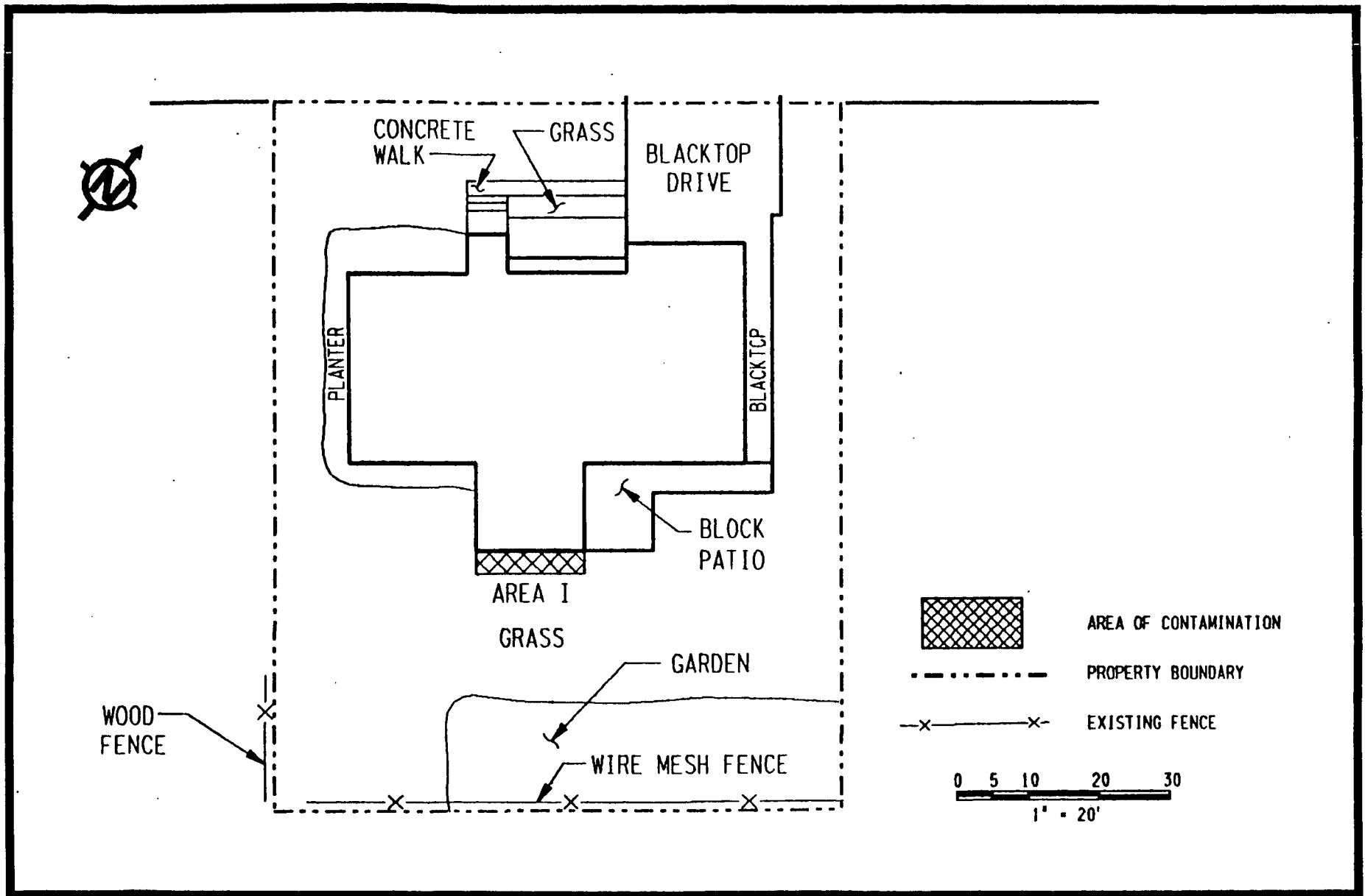


FIGURE III-15 REMEDIAL ACTION AT 10 NORTH ELMHURST AVENUE (AL068)

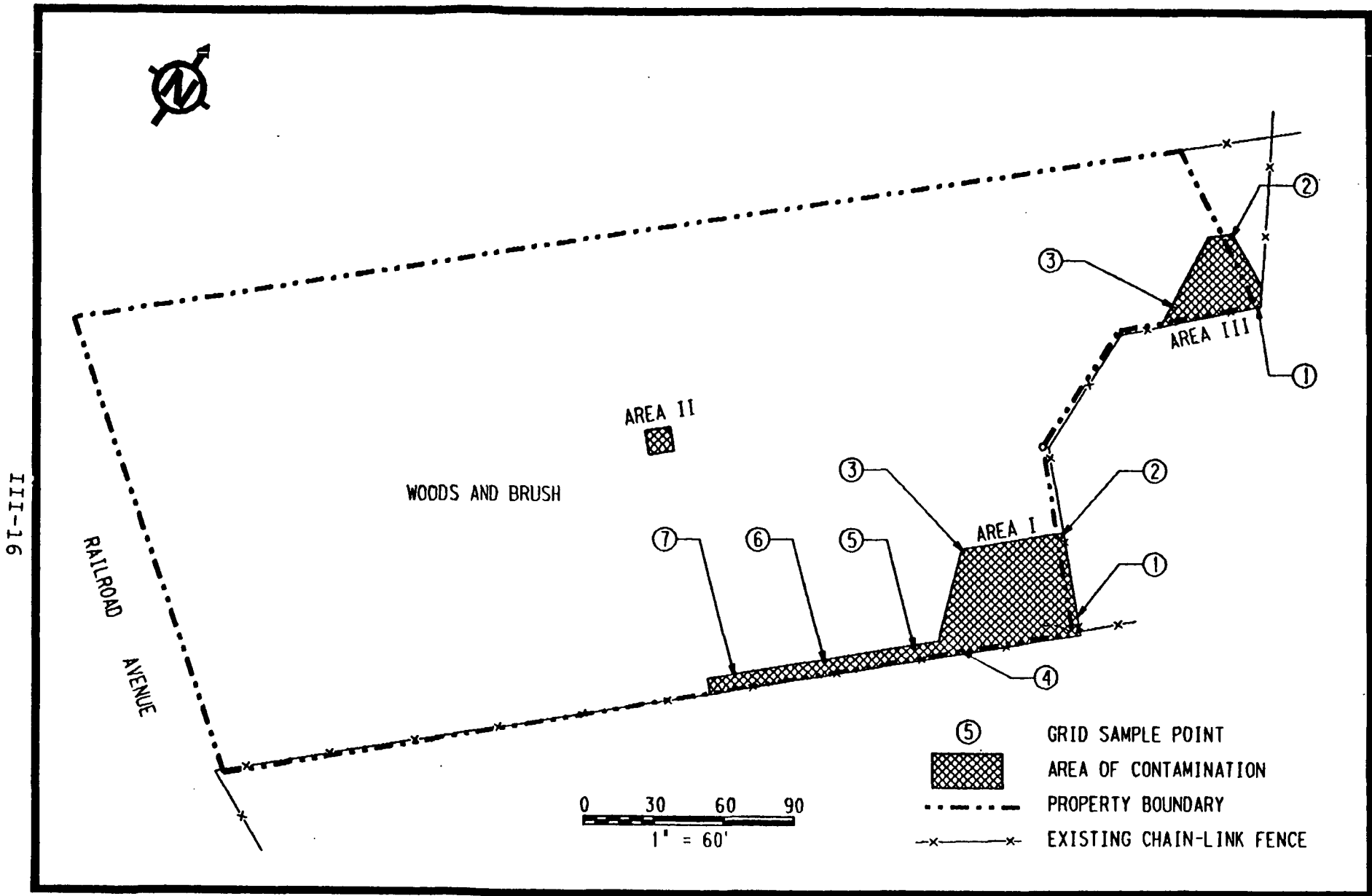


FIGURE III-16 REMEDIAL ACTION AT CRANNELL PROPERTY, RAILROAD AVENUE (AL217)

LI-III

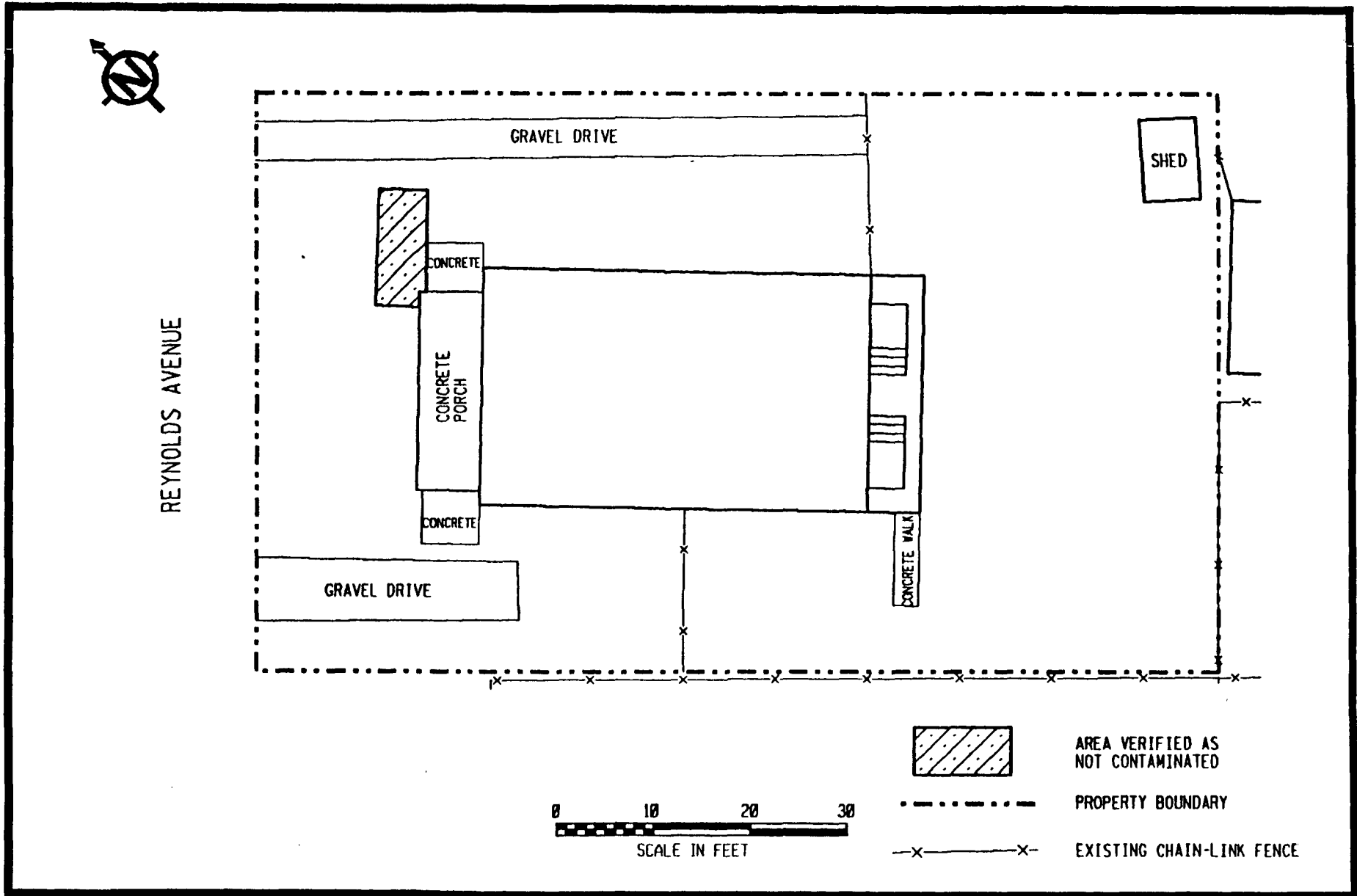


FIGURE III-17 REMEDIAL ACTION AT 1 REYNOLDS AVENUE (AL033)

III-18

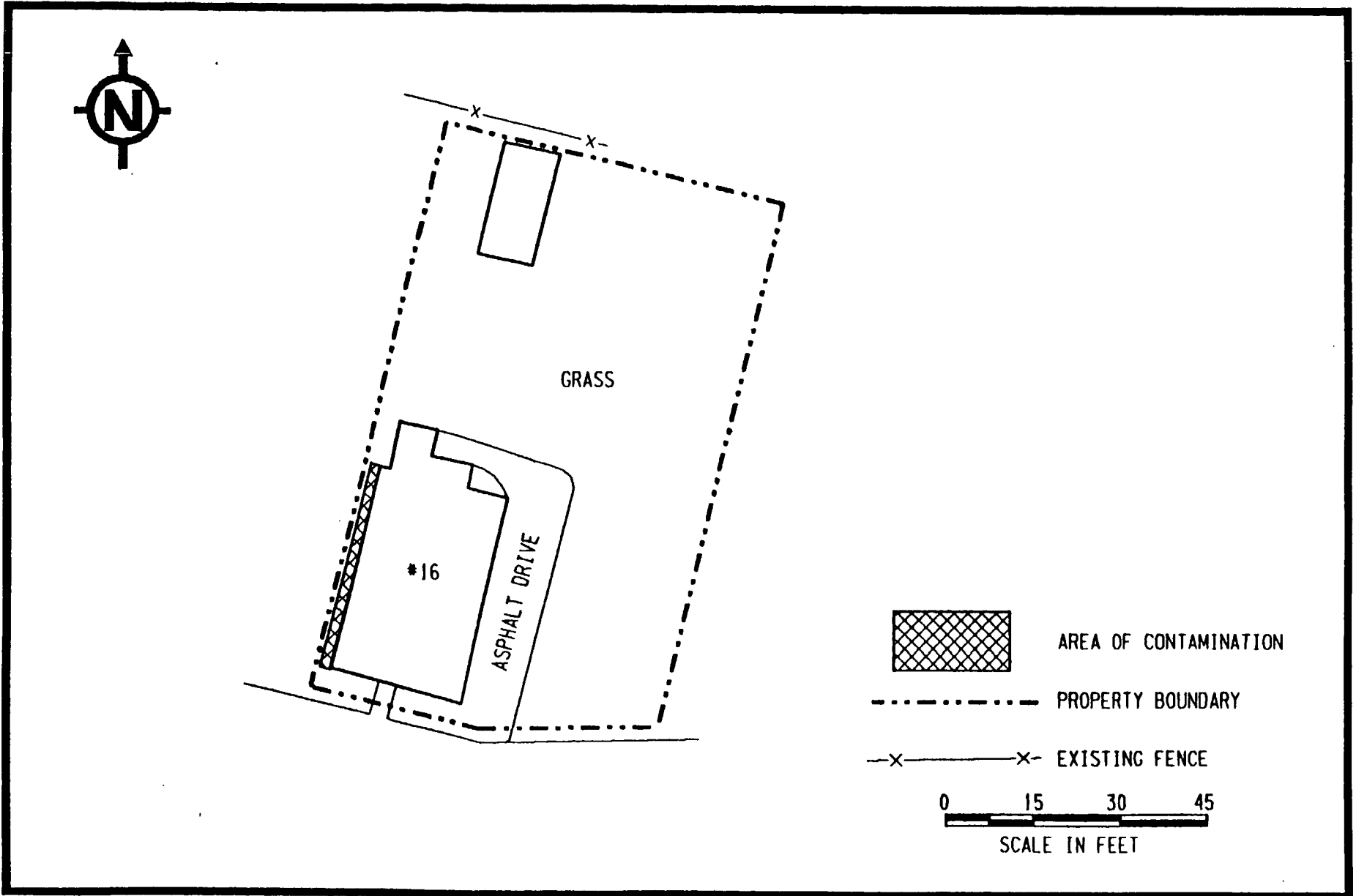


FIGURE III-18 REMEDIAL ACTION AT 16 YARBORO AVENUE (AL137)

III-19

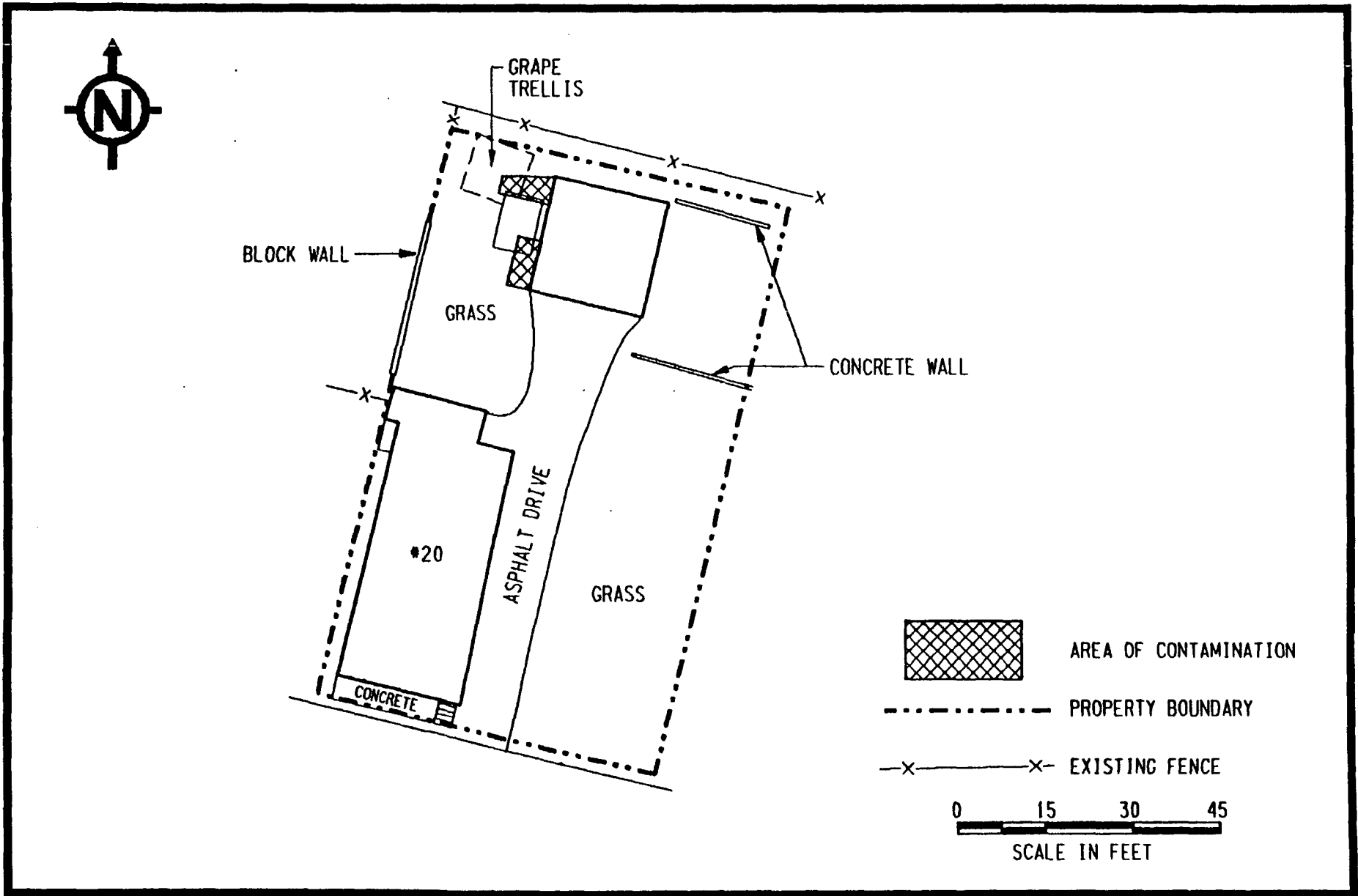


FIGURE III-19 REMEDIAL ACTION AT 20 YARBORO AVENUE (AL136)

III-20

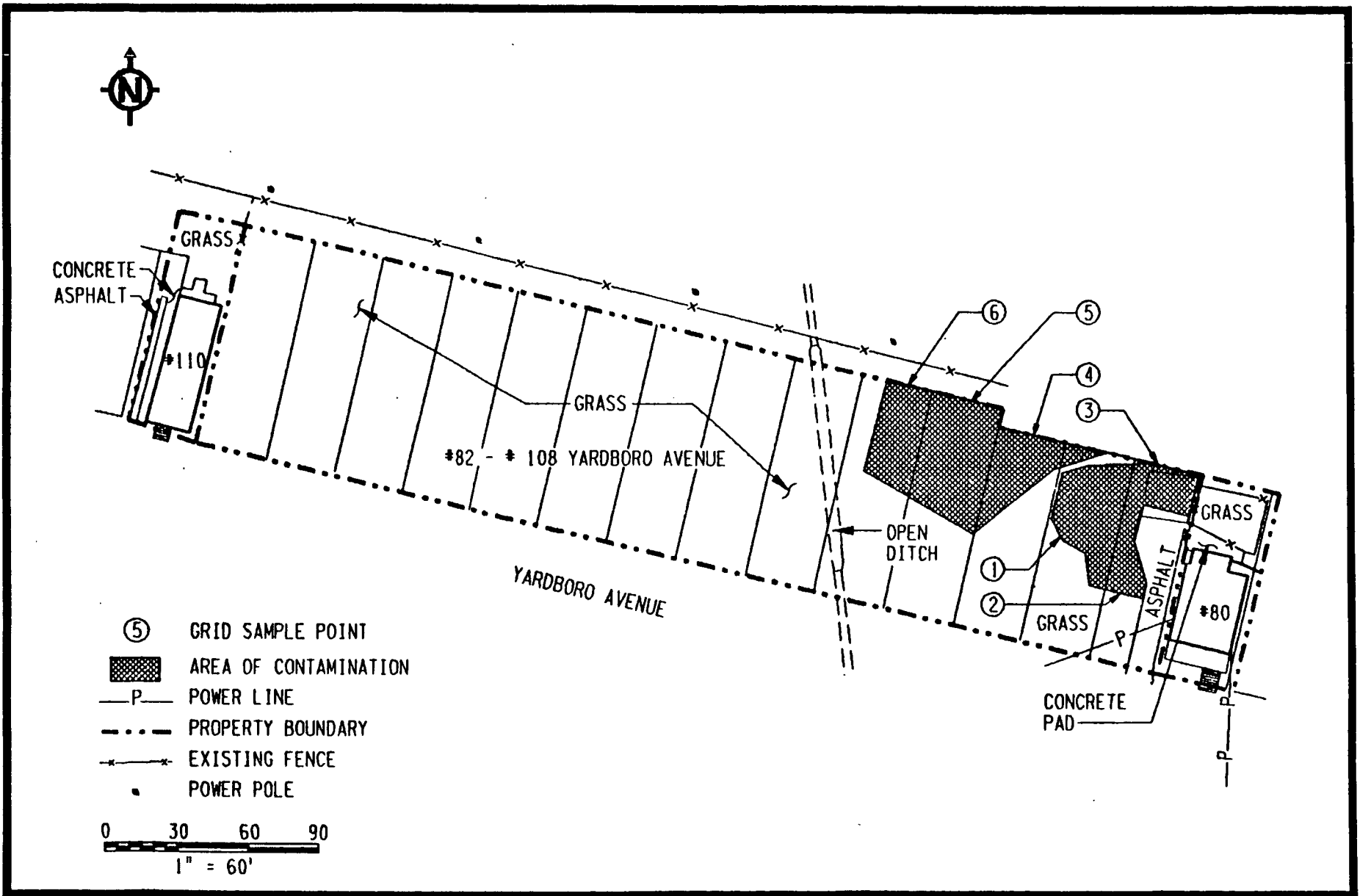


FIGURE III-20 REMEDIAL ACTION AT 80-110 YARDBORO AVENUE (AL151)