Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision

American Valve Manufacturing
Inactive Hazardous Waste Site
Coxsackie, Greene County, New York
Site No. 420002

March 1997

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* JOHN P. CAHILL, *Acting Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

American Valve Manufacturing Inactive Hazardous Waste Site
Coxsackie, Greene County, New York
Site No. 420002

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedial action for Operable Unit 1 of the American Valve Manufacturing inactive hazardous waste disposal site, which was chosen in accordance with the New York State Environmental Conservation Law (ECL). The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300).

This decision is based upon the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for Operable Unit 1 of the American Valve Manufacturing Inactive Hazardous Waste Site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A bibliography of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential threat to public health and the environment.

Description of Selected Remedy

Based upon the results of the Remedial Investigation/Feasibility Study (RI/FS) for the American Valve Manufacturing Inactive Hazardous Waste Site, and the criteria identified for evaluation of alternatives the NYSDEC has selected Alternative 3A, Geomembrane Cap, as the remedy for Operable Unit 1 (the foundry sand wastes at the site). The components of the remedy are as follows:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program. Any uncertainties identified during the RI/FS would be resolved.

2. Clearing and grubbing of the site, demolition of the small outbuildings, salvage of the large fuel storage tanks, decommissioning and relocation of some monitoring wells, and removal of the old internal fence around the building.

3. Consolidation of the foundry sand wastes in the southwest portion of the site, in the vicinity of the Main Disposal Area.

4. Construction of a geomembrane cap, which complies with 6 NYCRR Part 373, over the consolidated foundry sand waste.

5. Regrading and revegetation of the areas from which foundry sands will be removed.

6. Since the remedy results in untreated hazardous waste remaining at the site, a long term monitoring program would be instituted. This program would allow the effectiveness of the selected remedy to be monitored and would be a component of the operation and maintenance for the site.

New York State Department of Health Acceptance

The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

3/27/97
Date

Michael J. O'Toole, Jr., Director
Division of Environmental Remediation

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RECORD OF DECISION

AMERICAN VALVE MANUFACTURING SITE
Coxsackie, Greene County, New York
Site No. 420002
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SECTION 1: SITE LOCATION AND DESCRIPTION

The American Valve Manufacturing (AVM) Site is located at 170 Mansion St. in the Village of Coxsackie, Greene County, New York. The site covers approximately 15.5 acres, and is bounded to the west by a Conrail right of way, to the northwest by Cato St., to the northeast by Mansion St., and to the south by Spencer Blvd. Residential homes are present on Cato St, Mansion St., and Spencer Blvd. A village cemetery is present adjacent to the site to the east-southeast.

The site is located approximately 3,000 feet west of the Hudson River, on a river terrace at an approximate elevation of 140 to 150 M.S.L. Please see attached Figure 1 for a site location map.

Operable Unit No. 1, which is the subject of this ROD, consists of the foundry sand waste which was deposited at the site over the period of operation of the facility. An Operable Unit represents a portion of the site remedy which for technical or administrative reasons can be addressed separately to eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination. The remaining operable unit for this site is described in Section 3.1.1 below.

SECTION 2: SITE HISTORY

2.1: Operational/Disposal History

1904-1986: The AVM foundry operations resulted in the on-site disposal of waste foundry sand along with shell molds and cores. No containment or liners were used in the disposal of these wastes. Also, there was use of industrial solvents which resulted in releases to the environment.

2.2: Remedial History

1987: Wehran Engineering, on behalf of the NYSDEC, conducted a Phase 1 Site Investigation of the AVM site. Wehran identified heavy metals and phenols as potential contaminants of concern.

1989: NYSDOH collected surface soil samples from neighboring properties, and sampled vegetables from residential gardens. NYSDOH also conducted a voluntary blood lead screening program and reviewed the incidence of cancer rates within the Village of Coxsackie.

SECTION 3: CURRENT STATUS

In response to a determination that the presence of hazardous waste at the Site presents a significant threat to human health and the environment, the NYSDEC has performed a Remedial Investigation (RI), and recently completed a Focused Feasibility Study (FFS) for Operable Unit 1.

3.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site.

The RI was conducted in two phases. The first phase was conducted between June of 1993 and October of 1994; the second phase between January of 1995 and February of 1997. Reports entitled "Phase 1 Remedial Investigation Report" and "Phase 2 Remedial Investigation Report" have been prepared describing the field activities and findings of the RI in detail.

The RI included the following activities:

- Review of historical aerial photographs;
- Surface soil sampling;
- Test pit excavation and sampling;
- Air monitoring;
- Soil borings;
- Monitoring well installation;
- Groundwater sampling;
- Hydraulic conductivity testing;
- Analytical data validation;
- Bench scale testing of treatment technologies.

To determine which media (soil, groundwater, etc.) contain contamination at levels of concern, the RI analytical data was compared to environmental Standards, Criteria, and Guidance (SCGs). Groundwater, drinking water and surface water SCGs identified for the AVM site were based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of NYS Sanitary Code. NYSDEC TAGM 4046 soil cleanup guidelines for the protection of groundwater, background conditions, and risk-based remediation criteria were used as SCGs for soil and the Division of Fish and Wildlife Technical Guidance for Screening Contaminated Sediments is used for surface water sediments.

Based upon the results of the remedial investigation in comparison to the SCGs and potential public health and environmental exposure routes, certain areas and media of the site require remediation. These are summarized below. More complete information can be found in the RI Report. Analytical results are also summarized in Table 1 (attached).

Chemical concentrations are reported in parts per billion (ppb) and parts per million (ppm). For comparison purposes, SCGs are given for each medium.

3.1.1 Nature of Contamination:

As described in the RI Report, many soil, groundwater and waste samples were collected at the Site to characterize the nature and extent of contamination. Contamination within Operable Unit 1, the foundry sands, is dominated by the presence of the metals which make up brass: copper, lead, and zinc.

Operable Unit 2 is defined as the isolated area of perchloroethene (an industrial solvent) found recently beneath the eastern corner of the building complex. Additional investigations will be scoped out and implemented to confirm the extent of contamination associated with this area, and remedial alternatives will be evaluated after this work is completed.

3.1.2 Extent of Contamination

The extent of foundry sand at the site can be seen in Figure 2. Much of the foundry sand (28,000 cubic yards) is found in the "Main Disposal Area", a large waste pile in the southwest portion of the site. The balance of the foundry sand (43,000 cubic yards) is spread a few feet deep throughout a large area of the site.

The foundry sands were sampled to determine the distribution of heavy metals and organic chemicals within the wastes, and soil sampling was done to determine the extent to which contaminants from the foundry sand may have migrated in the environment.

Table 1 summarizes the extent of contamination for the contaminants of concern in the foundry sand, soil, and groundwater, and compares the data with the proposed remedial action levels (SCGs) for the Site. The following are the media which were investigated and a summary of the findings of the investigation.

Soil

Soils were tested adjacent to and beneath the foundry sand which exhibited varying concentrations of heavy metals. Generally, the heavy metals do not appear to have migrated away from the foundry sands into the soils to a significant extent. Remedial alternatives also address the soils which are in contact with the foundry sands. Samples were taken of surficial soils both adjacent to the site, and away from the site in the Village. Concentrations of heavy metals found adjacent to the site were not significantly different from those away from the site, and do not pose a significant health concern according to NYSDOH.

Waste Materials

The foundry sands at the site all contain the constituents of brass (copper, lead, and zinc). Concentrations of heavy metals in the foundry sands are significant (in the percent range), and approximately half of the samples analyzed by the Toxic Characteristic Leaching Procedure (TCLP) failed the test for lead, meaning that those wastes were characteristic hazardous wastes.

Groundwater

Monitoring wells were installed around the perimeter of the site, and near the building complex. Groundwater samples were analyzed for heavy metals, phenols, volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), and semivolatile organic compounds (SVOCs). Significant concentrations of heavy metals, PCBs, SVOCs and phenols were not found. However, high concentrations of VOCs were found under the northeast portion of the building complex, and lower levels were found both northeast and west of the building. Groundwater flows both east and west from the center of the site, as a groundwater divide is located beneath the site. Additional investigations will be needed to determine the extent of the VOC problem in the groundwater, and will be done as a part of Operable Unit 2.

Sediment

Sediment was sampled in the drainage that leads away from the site to the west. Concentrations of heavy metals found, although higher than guidelines, were not significantly different than seen in soils sampled in local areas away from the site, and no remediation is required.

3.2 Interim Remedial Measures:

Interim Remedial Measures (IRMs) are conducted at sites when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS.

The NYSDEC implemented an IRM in 1992 to address the offsite erosion of foundry sands from the Main Disposal Area in the southwest portion of the site, to fence the site, and to remove foundry sands from the sewer line which passes beneath the site. Foundry sands that had washed off the site were relocated back onto the site, and runoff controls were established. Removal of the foundry sands from the sewer was needed due to the elevated loadings of metals to the municipal wastewater treatment plant, which increased costs to the municipality.

3.3 Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the health risks can be found in the Risk Assessment Report for the site.

An exposure pathway is how an individual may come into contact with a contaminant. The five elements of an exposure pathway are 1) the source of contamination; 2) the environmental media and transport mechanisms; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of an exposure pathway may be based on past, present, or future events.

Completed pathways which are known to or may exist at the site include:

- direct contact exposure to the foundry sands by site workers or trespassers (potential);
- ingestion of the foundry sands by site workers or trespassers (potential);
- direct contact, ingestion, and inhalation of dusts generated from wind blown foundry sands by site workers, trespassers, and nearby residents (potential).

3.4 Summary of Environmental Exposure Pathways:

This section summarizes the types of environmental exposures which may be presented by the site. The Habitat Based Assessment Report presents a more detailed discussion of the potential impacts from the site to fish and wildlife resources. The following pathway for environmental exposure has been identified:

- migration of foundry sands from the site to the surface water drainageway to the west, which leads to a small stream and eventually to the Hudson River.

Sampling in the drainageway after the IRM was done in 1992 has shown that it is not significantly impacted by the site. Concentrations of heavy metals found in the stream sediments are consistent with other background soils in the town, and no remediation will be necessary in the drainageway.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The Potential Responsible Parties (PRP) for the site, documented to date, include the American Valve Manufacturing Co., and it's successors.

The PRPs failed to implement the RI/FS at the site when requested by the NYSDEC. After the remedy is selected, the PRPs will again be contacted to assume responsibility for the remedial program. If an agreement cannot be reached with the PRPs, the NYSDEC will evaluate the site for further action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the State has incurred.

SECTION 5: SUMMARY OF THE REMEDIATION GOALS

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. The overall remedial goal is to meet all Standards, Criteria, and Guidance (SCGs) and be protective of human health and the environment.

At a minimum, the remedy selected should eliminate or mitigate all significant threats to the public health and to the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

The goals selected for Operable Unit 1 of this site are:

- Reduce, control, or eliminate to the extent practicable the contamination present within the soils and foundry sand on site.

- Eliminate contaminated surface run-off from the foundry sand waste and contaminated soils.

- Eliminate the potential for direct human or animal contact with the foundry sand waste and contaminated soils.

- Eliminate the potential for airborne migration of the foundry sand and contaminated soils.

- Prevent migration of heavy metals from the foundry sand and contaminated soils to groundwater.

SECTION 6: SUMMARY OF THE EVALUATION OF ALTERNATIVES

The selected remedy should be protective of human health and the environment, be cost effective, comply with other statutory laws and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. Potential remedial alternatives for Operable Unit 1 of the American Valve Manufacturing Site were identified, screened and evaluated in a Feasibility Study. This evaluation is presented in the report entitled "Operable Unit 1 Feasibility Study", by Malcolm Pirnie Inc. dated February, 1997.

A summary of the detailed analysis follows. As used in the following text, the time to implement reflects only the time required to implement the remedy, and does not include the time required to design the remedy, procure contracts for design and construction or to negotiate with responsible parties for implementation of the remedy.

6.1: Description of Alternatives

The potential remedies are intended to address the foundry sands and contaminated soils at the site.

Alternative 1:

No Further Action

This alternative recognizes remediation of the site conducted under the previously completed IRM. Only continued monitoring would be necessary to evaluate the effectiveness of the remediation completed under the IRM.

This alternative would leave the site in its present condition and would not provide any additional protection to human health or the environment.

Present Worth:	$ 440,000
Capital Cost:	$ 20,000
Annual O&M:	$ 27,000
Time to Implement	6 months

(Present Worth is calculated by adding the capital cost to the present worth of the Operation and Maintenance costs computed for the expected duration of the operation of the remedy or 30 years which ever is less)

Alternative 2:

Limited Action

This alternative would involve the clearing and grubbing of the site, disposal of scrap metal, regrading of the main disposal area, placement of six inches of cover material (clean soil) over all of the foundry sand at the site, placement of six inches of topsoil over the cover material, establishment of a vegetative cover, placement of warning signs at the site, and imposition of deed restrictions on the property. Long term monitoring would be done to measure future impacts from the site.

Present Worth:	$ 1,040,000
Capital Cost:	$ 562,000
Annual O&M:	$ 31,000
Time to Implement	6 months

Alternative 3:

Consolidation and Capping

There are two consolidation and capping scenarios evaluated.

Alternative 3A:

Geomembrane Cap

This alternative would consist of the clearing and grubbing of the site, consolidation of the foundry sand and contaminated soils within a 5 acre area in the southwest portion of the site, placement of a geomembrane cap (following 6 NYCRR Part 373 Landfill regulations), demolition of small outbuildings at the site, salvage of the large above ground storage tanks, decommissioning and relocation of some existing monitoring wells, posting of warning signs, imposition of deed restrictions on the property, and long term monitoring, operation and maintenance.

Present Worth:	$ 2,140,000
Capital Cost:	$ 1,687,000
Annual O&M:	$ 32,000
Time to Implement	1 to 2 years

Alternative 3B:

Soil Cap

This alternative is nearly the same as Alternative 3A, except that the cap would be constructed of low permeability soils. The cap would still comply with the landfill cap design regulations.

Present Worth:	$ 2,400,000
Capital Cost:	$ 1,906,000
Annual O&M:	$ 32,000
Time to Implement	1 to 2 years

Alternative 4:

Stabilization/Solidification

There are three scenarios evaluated which include treatment of the foundry sands and contaminated soils by the process of stabilization/solidification. This technology involves the mixing of cement, lime or other materials, and other additives, to the foundry sands and soils. The result of this process would be a solid material similar in appearance to concrete which would not leach out the heavy metals, and would not be a hazardous waste.

Alternative 4A:

Offsite Stabilization/Solidification and Disposal

This alternative would involve the excavation, transportation, and offsite treatment of the foundry sands and contaminated soils by stabilization/solidification technology. The resulting material would be reused off site.

Present Worth:	$ 31,020,000
Capital Cost:	$ 30,900,000
Annual O&M:	$ 27,000
Time to Implement	1 to 2 years

Alternative 4B:

Onsite Solidification/Stabilization and Disposal

This alternative would involve the excavation and onsite treatment of the foundry sands and contaminated soils by stabilization/solidification technology. The resulting material would be disposed onsite. There would be no requirement to construct a landfill onsite for the material after treatment.

Present Worth:	$ 9,670,900
Capital Cost:	$ 9,188,000
Annual O&M:	$ 31,000
Time to Implement	1 to 2 years

Alternative 4C:

Onsite Stabilization/Solidification and Offsite Disposal

This alternative would involve the excavation, transportation, and onsite treatment of the foundry sands and contaminated soils by stabilization/solidification technology. The resulting material would be reused offsite.

Present Worth:	$ 23,670,000
Capital Cost:	$ 23,606,000
Annual O&M:	$ 27,000
Time to Implement	1 to 2 years

Alternative 5:

Onsite Soil Washing/Acid Extraction and Disposal

This alternative would involve the excavation, onsite treatment of the foundry sands and contaminated soils by soil washing/acid extraction technology to remove the heavy metals. The resulting material would be disposed onsite. There would be no requirement to construct a landfill onsite for the material after treatment, as the material would not be a hazardous waste.

Present Worth:	$ 29,020,200
Capital Cost:	$ 28,900,000
Annual O&M:	$ 27,000
Time to Implement	1 to 2 years

6.2 Evaluation of Remedial Alternatives

The criteria used to compare the potential remedial alternatives are defined in the regulation that directs the remediation of inactive hazardous waste sites in New York State (6NYCRR Part 375). For each of the criteria, a brief description is provided followed by an evaluation of the alternatives against that criterion. A detailed discussion of the evaluation criteria and comparative analysis is contained in the Feasibility Study.

The first two evaluation criteria are termed threshold criteria and must be satisfied in order for an alternative to be considered for selection.

1. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether or not a remedy will meet applicable environmental laws, regulations, standards, and guidance.

Alternative 1 would not meet SCGs, as there would continue to be the potential for transport of, and exposure to, the foundry sand wastes which could result in groundwater contamination, surface water contamination, and soil contamination.

Alternative 2 could reduce the potential for future migration of and exposure to the foundry sand wastes, but would not meet the State requirements for landfill capping.

Alternatives 3A, 3B, 4A, 4B, 4C, and 5 would all meet SCGs. They would allow for continued attainment of environmental quality standards for air, groundwater, and surface water, and would comply with the regulations which pertain to the capping and/or treatment of the wastes.

2. Protection of Human Health and the Environment. This criterion is an overall evaluation of the health and environmental impacts to assess whether each alternative is protective.

All alternatives except for Alternative 1 would be protective of human health and the environment. Exposure to the foundry sands would be limited or eliminated, and the waste would not be a source of contamination to the environment. Alternative 2 is protective, but less than the capping or treatment alternatives.

The next five "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Short-term Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

The alternatives which involve the least intrusive activity (Alternatives 1 and 2) would have the highest short-term effectiveness. Alternatives which involve moving all of the foundry sand wastes (4A, 4B, 4C, and 5) would involve the potential for more adverse impacts. Alternatives which would involve shipping material offsite (Alternatives 4A and 4C) would also increase the potential for adverse impacts. The capping alternatives (3A and 3B) would have less adverse impacts. Technologies and construction techniques are available to allow for mitigation of adverse impacts during construction and implementation of any of the alternatives.

4. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the controls intended to limit the risk, and 3) the reliability of these controls.

Alternative 1 has the lowest long-term effectiveness, as there would be no future controls of releases from the site. Of the other alternatives, Alternative 2 would have the lowest long-term effectiveness, since the soil cover has limited ability to prevent future migration of contamination via the groundwater route. Alternative 3A and 3B would have good long-term effectiveness, as the Part 360 cap would be an effective and reliable control over future migration of contamination from the foundry sands via wind, surface water, or groundwater. Alternatives 4A, 4B, 4C, and 5 would all have good long-term effectiveness as well, as

they all would result in either removal of the wastes from the site or in the treatment of the wastes to render them non-hazardous.

5. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Alternatives 1, 2, 3A and 3B would not involve treatment of the wastes. Alternatives 4A, 4B, 4C, and 5 would utilize treatment to render the wastes non-hazardous and reduce either the mobility (Alternatives 4A, 4B, 4C) or toxicity (Alternative 5) of the wastes.
Alternatives 3A and 3B would result in the reduction in mobility of the wastes by capping, eliminating the potential for wind, surface water, or groundwater transport. Alternative 2 would somewhat limit mobility, in that transport by wind or surface water (erosion) would be limited.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction and the ability to monitor the effectiveness of the remedy. For administrative feasibility, the availability of the necessary personnel and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc..

Alternatives 1 and 2 are the most implementable, in that they involve the least effort. Alternatives 3A, 3B, 4A, 4B, 4C, and 5 are all implementable, but with some differences. Those alternatives which involve moving all of the foundry sand (4A, 4B, 4C, and 5) would be slightly harder to implement, but do not pose a great deal of difficulty, as conventional construction techniques can be used. Alternatives which would involve shipping of the material offsite would also have a lower implementability due to complexities (loading, material handling, permitting) associated with transporting large volumes of wastes via road or rail.

7. Cost. Capital and operation and maintenance costs are estimated for each alternative and compared on a present worth basis. Although cost is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the remaining criteria, cost effectiveness can be used as the basis for the final decision. The costs for each alternative are presented in Table 2.

This final criterion is considered a modifying criterion and is taken into account after evaluating those above. It is focused upon after public comments on the Proposed Remedial Action Plan have been received.

8. Community Acceptance - Concerns of the community regarding the RI/FS reports and the Proposed Remedial Action Plan have been evaluated. The "Responsiveness Summary" included as Appendix A presents the public comments received and the Department's response to the concerns raised.

Public comments were received that were both supportive and opposed to the selected remedy. The comments opposing the selected remedy brought up the concept that the estimated remedial costs presented by the Department were not reflective of the cost to the community associated with the presence of a remediated hazardous waste site in the area. Additional costs that should be taken into account, according to some commenters, include the potential loss of property values to homeowners adjacent to the site, as well as the potential loss to the community of tax revenues from use of the remediated site.

SECTION 7: SUMMARY OF THE PREFERRED REMEDY

Based upon the results of the RI/FS, and the evaluation presented in Section 7, the NYSDEC is selecting Alternative 3A, Geomembrane Cap, as the remedy for Operable Unit 1 of this site.

This selection is based upon the reliability and effectiveness of the remedy to minimize transport of the contaminants within the foundry sands by wind, erosion, and rainfall infiltration, and therefore minimize future risks associated with exposure to the contaminants within the sands; the implementability of the remedy; and the relatively high cost-effectiveness of the remedy.

Alternatives 4A, 4B, 4C, and 5 would also be effective in minimizing transport of, and exposure to, the foundry sands, but are slightly less implementable, and are significantly less cost-effective.

Alternative 3A is preferred over 3B (soil cap) because the synthetic cap is easier to construct, and is more reliable.

The estimated present worth cost to implement the remedy is $ 2,140,000. The cost to construct the remedy is estimated to be $ 1,652,000 and the estimated average annual operation and maintenance cost for 30 years is $ 31,625 per year.

The elements of the selected remedy are as follows:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program. Any uncertainties identified during the RI/FS would be resolved.

2. Clearing and grubbing of the site, demolition of the small outbuildings, salvage of the large fuel storage tanks, decommissioning and relocation of some monitoring wells, and removal of the old internal fence around the building.

3. Consolidation of the foundry sand wastes in the southwest portion of the site, in the vicinity of the Main Disposal Area.

4. Construction of a geomembrane cap, which complies with 6 NYCRR Part 373, over the consolidated foundry sand waste.

5. Regrading and revegetation of the areas from which foundry sands will be removed.

6. Since the remedy results in untreated hazardous waste remaining at the site, a long term monitoring program would be instituted. This program would allow the effectiveness of the selected remedy to be monitored and would be a component of the operation and maintenance for the site.

SECTION 8: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation (CP) activities were undertaken in an effort to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- Three repositories for documents pertaining to the site were established.
- A site mailing list was established which included nearby property owners, local political officials, local media, and other interested parties.
- Fact sheets were distributed to local residents and to the people on the mailing list.
- An Availability Session for informal question and answer with interested parties was held at the Coxsackie Village Hall from 4:00 pm to 6:00 pm on March 6, 1997.
- A Public Meeting was held at the Coxsackie Village Hall from 7:00 pm to 9:00 pm on March 6, 1997 to present the findings of the RI/FS, explain the remedial alternatives developed for the site, describe the remedy selection process, and present the proposed alternative.

Table 1
Nature and Extent of Contamination

MEDIA	CLASS	CONTAMINANT OF CONCERN	CONCENTRATION RANGE	FREQUENCY of EXCEEDING SCGs	SCG
Foundry Sand	Heavy Metals	Copper	ND to 92,000 mg/kg		NA
		Lead	ND to 4,630 mg/kg		NA
		Lead (TCLP)	0.028 to 13 (mg/l)	13/22	5 mg/l
		Zinc	30.6 to 30,100 mg/kg		
Foundry Sands	Semivolatile Organic Compounds (SVOCs)	Phenol	ND-0.130 mg/kg		NA
		2-Methyl phenol	ND		NA
Offsite Soils	Heavy Metals	Copper	5.4 to 200 mg/kg	5/10	25 mg/kg
		Lead	ND to 600 mg/kg	1/15	500 mg/kg
		Zinc	48.6 to 416 mg/kg	10/10	20 mg/kg
Onsite Soils	Heavy Metals	Copper	0.7 to 33,300 mg/kg	44/55	25 mg/kg
		Lead	ND to 4390 mg/kg	43/55	500 mg/kg
		Zinc	ND to 11800 mg/kg	42/55	20 mg/kg
Onsite Soils	Semivolatile Organic Compounds (SVOCs)	Phenol	ND	0/37	0.12 mg/kg
		2-Methyl phenol	ND	0/37	0.4 mg/kg
Groundwater (well points in building)	Volatile Organic Compounds (VOCs)	Vinyl chloride	ND to 11 ug/l	4/20	2 ug/l
		1,2-dichloroethene	ND to 380 ug/l	6/13	5 ug/l
		cis-1,2-dichloroethene	ND to 140 ug/l	2/7	5 ug/l
		trans-1,2-dichloroethene	ND to 24 ug/l	2/7	5 ug/l
		Tetrachloroethene	ND to 3500 ug/l	10/20	5 ug/l
		4-methyl-2-pentanone	ND to 6 ug/l	0/20	50 ug/l

Table 1
(continued)

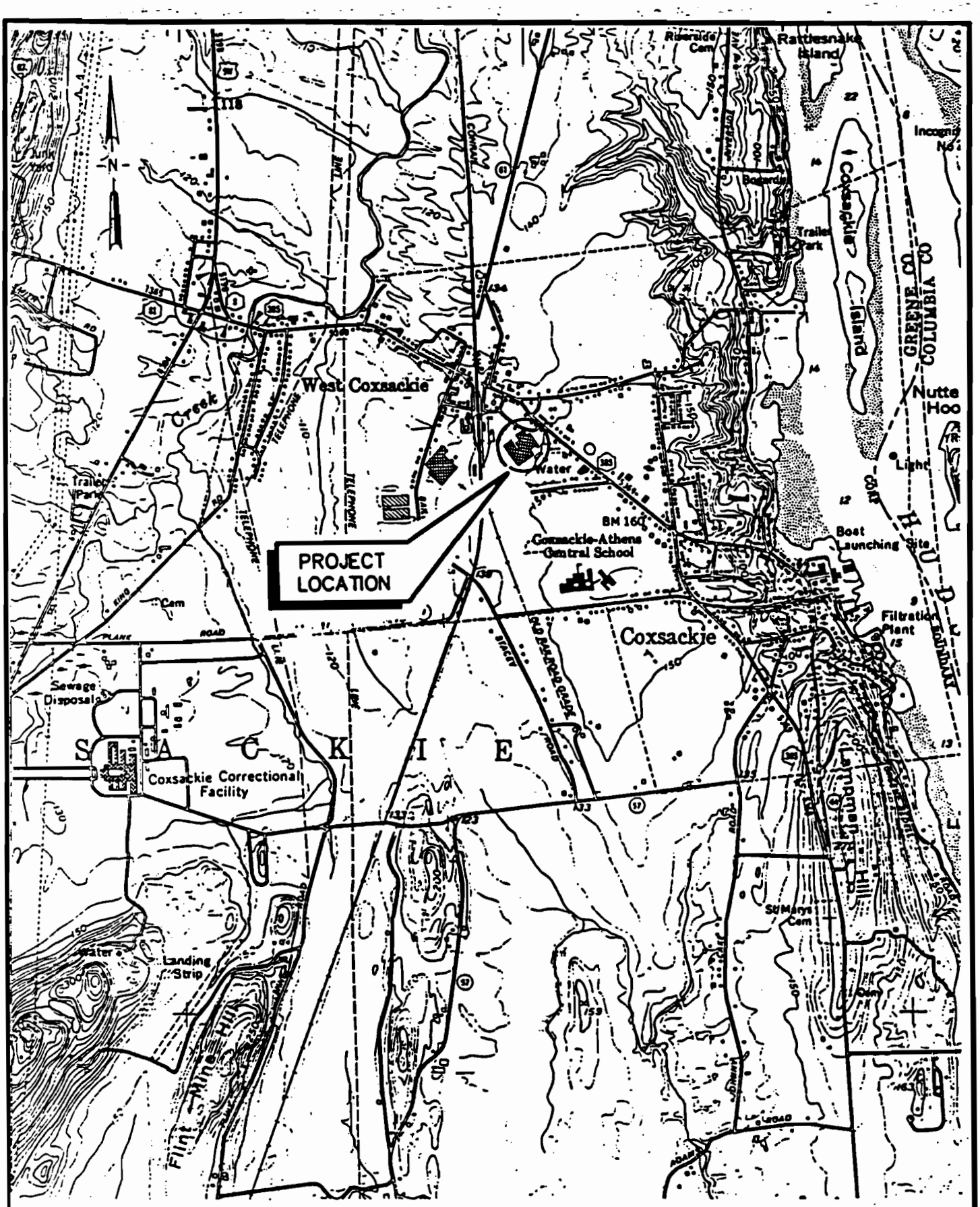
Groundwater (monitoring wells)	Volatile Organic Compounds (VOCs)	1,2-Dichloroethene	ND to 5 ug/l	0/11	5 ug/l
		cis-1,2-dichloroethene	ND to 1100 ug/l	1/19	5 ug/l
		Chloroform	ND to 2 ug/l	0/30	7 ug/l
		Trichloroethene	ND to 4300 ug/l	5/30	5 ug/l
		Tetrachloroethene	ND to 31,000 ug/l	7/30	5 ug/l
		Acetone	ND to 5 ug/l	0/30	50 ug/l
Groundwater	Heavy Metals	Copper	ND to 1010 ug/l	9/21	200 ug/l
		Lead	ND to 408 ug/l	8/21	25 ug/l
		Zinc	ND to 3260 ug/l	6/21	300 ug/l
Soils	Volatile Organic Compounds (VOCs)	Methylene chloride	ND to 6 mg/kg	9/14	0.4 mg/kg
		Acetone	ND to 640 mg/kg	9/14	0.8 mg/kg
		2-Butanone	ND to 64 mg/kg	2/14	1.2 mg/kg
		Trichloroethene	ND to 9 mg/kg	2/14	2.8 mg/kg
		Tetrachloroethene	ND to 400 mg/kg	8/14	5.6 mg/kg
		Toluene	ND to 2 mg/kg	0/14	6 mg/kg
		Chlorobenzene	ND to 2 mg/kg	0/14	6.8 mg/kg
		Carbon disulfide	ND to 17 mg/kg	1/14	10.8 mg/kg
		Ethylbenzene	ND to 11 mg/kg	0/14	22 mg/kg
		Xylenes	ND to 53 mg/kg	1/14	4.8 mg/kg

Table 1
(continued)

Well points	Dense Non-aqueous Phase Liquid (DNAPL)	Tetrachloroethene	35,000,000 ug/l (3.5%)	N/A	N/A
Sediments	Heavy Metals	Copper	949 mg/kg	1/1	25 mg/kg
		Lead	204 mg/kg	0/1	500 mg/kg
		Zinc	789 mg/kg	1/1	20 mg/kg

Table 2
Remedial Alternative Costs

Remedial Alternative	Capital Cost	Annual O&M	Total Present Worth
Alternative 1: No Action	$20,000	$27,000	$440,000
Alternative 2: Limited Action	$562,000	$31,000	$1,040,000
Alternative 3A: Geomembrane Cap	$1,687,000	$32,000	$2,140,000
Alternative 3B: Soil Cap	$1,906,000	$32,000	$2,400,000
Alternative 4A: Offsite Stabilization/Solidification and Reuse	$30,900,000	$27,000	$31,020,000
Alternative 4B: Onsite Stabilization/Solidification and Disposal	$9,188,000	$31,000	$9,670,900
Alternative 4C: Onsite Stabilization/Solidification and Offsite Reuse	$23,606,000	$27,000	$23,670,000
Alternative 5: Onsite Acid Washing and Disposal	$28,900,000	$27,000	$28,990,200



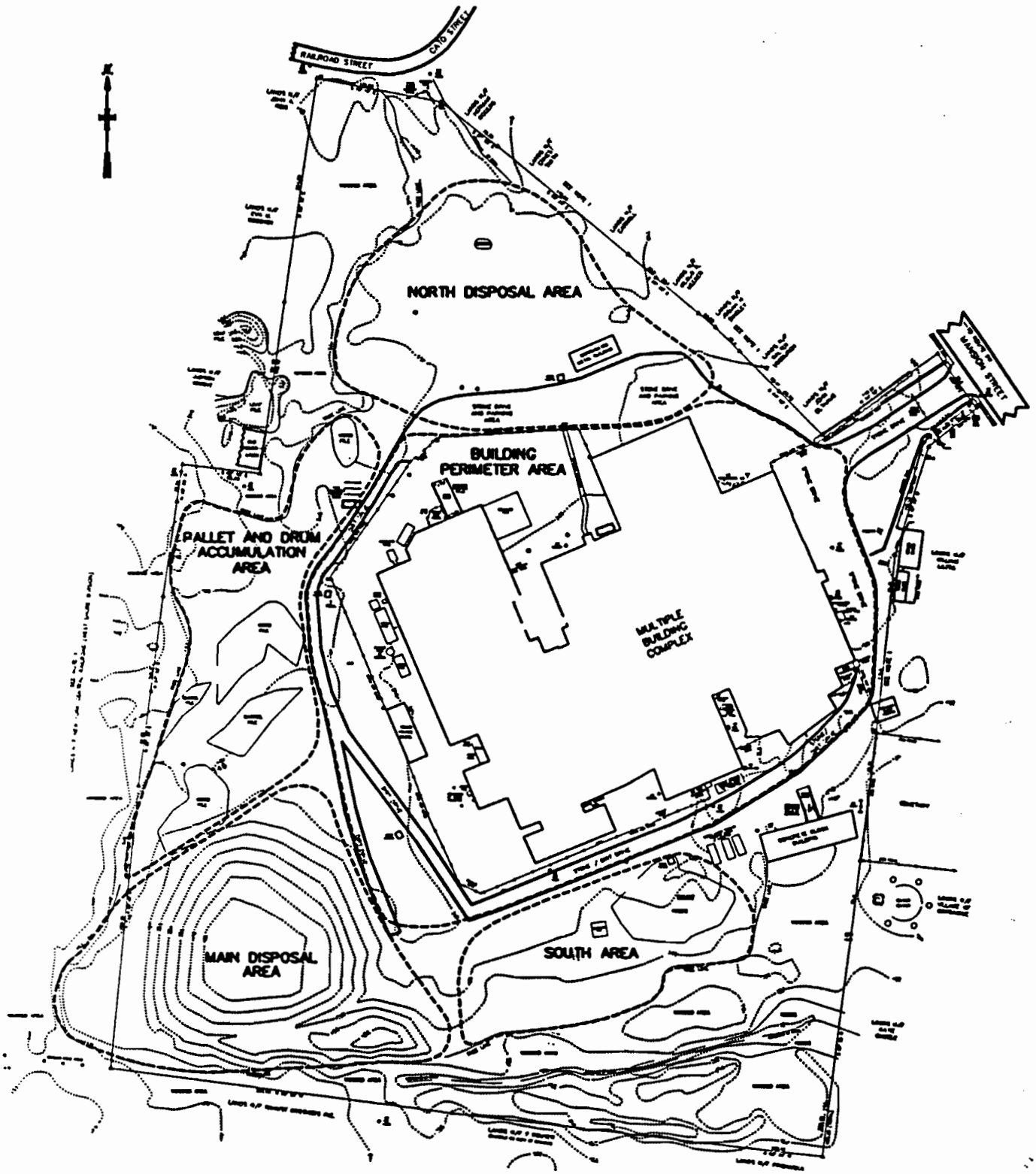
NYSDOT QUAD: HUDSON NORTH
7.5 MINUTE SERIES, 1976

MALCOLM PIRNIE

AMERICAN VALVE MFG.
COXSACKIE, NEW YORK

SITE LOCATION MAP

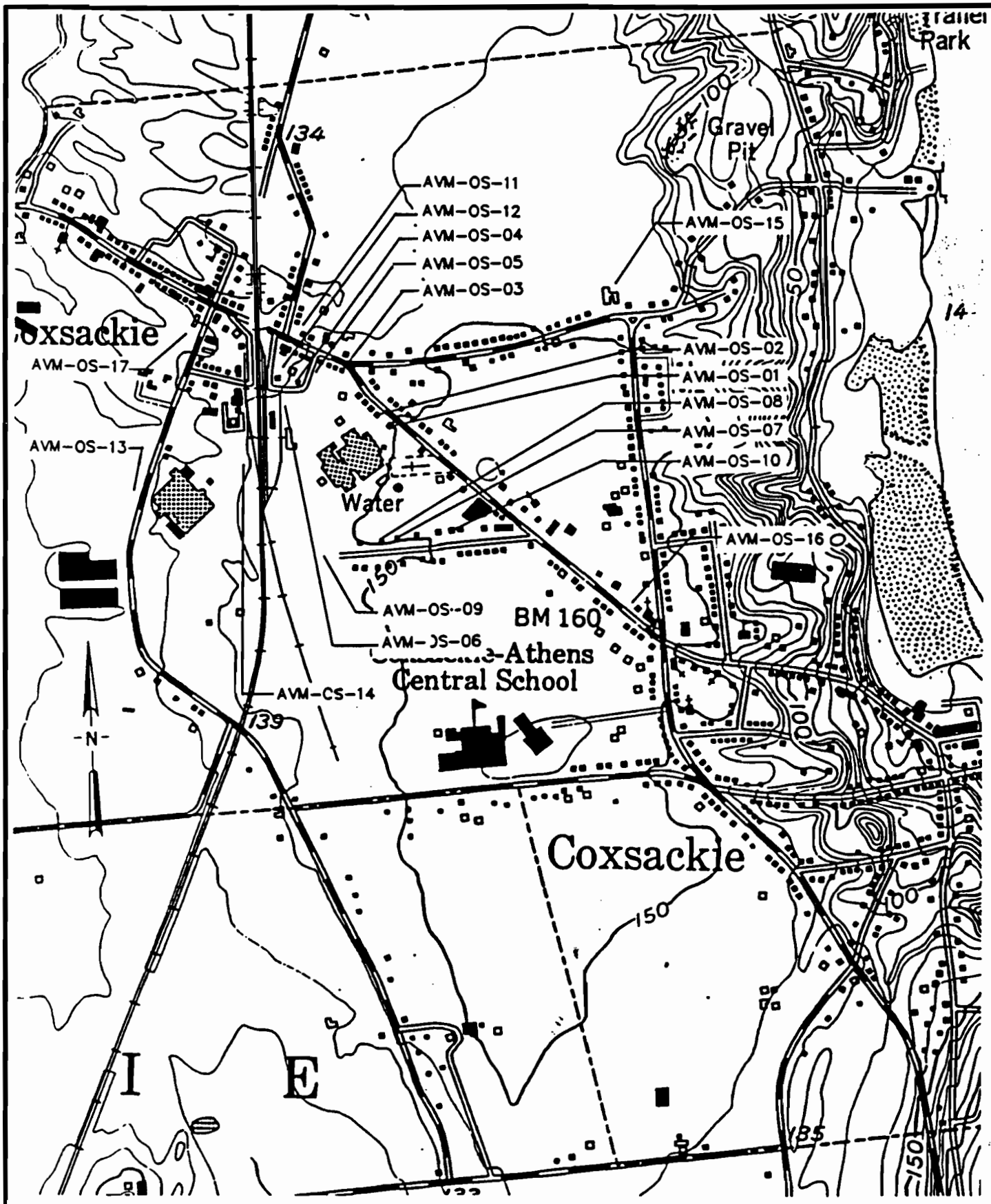
FIGURE 1



MALCOLM PIRNIE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AMERICAN VALVE MFG. CORP., COXSACKIE, NEW YORK

Figure 2



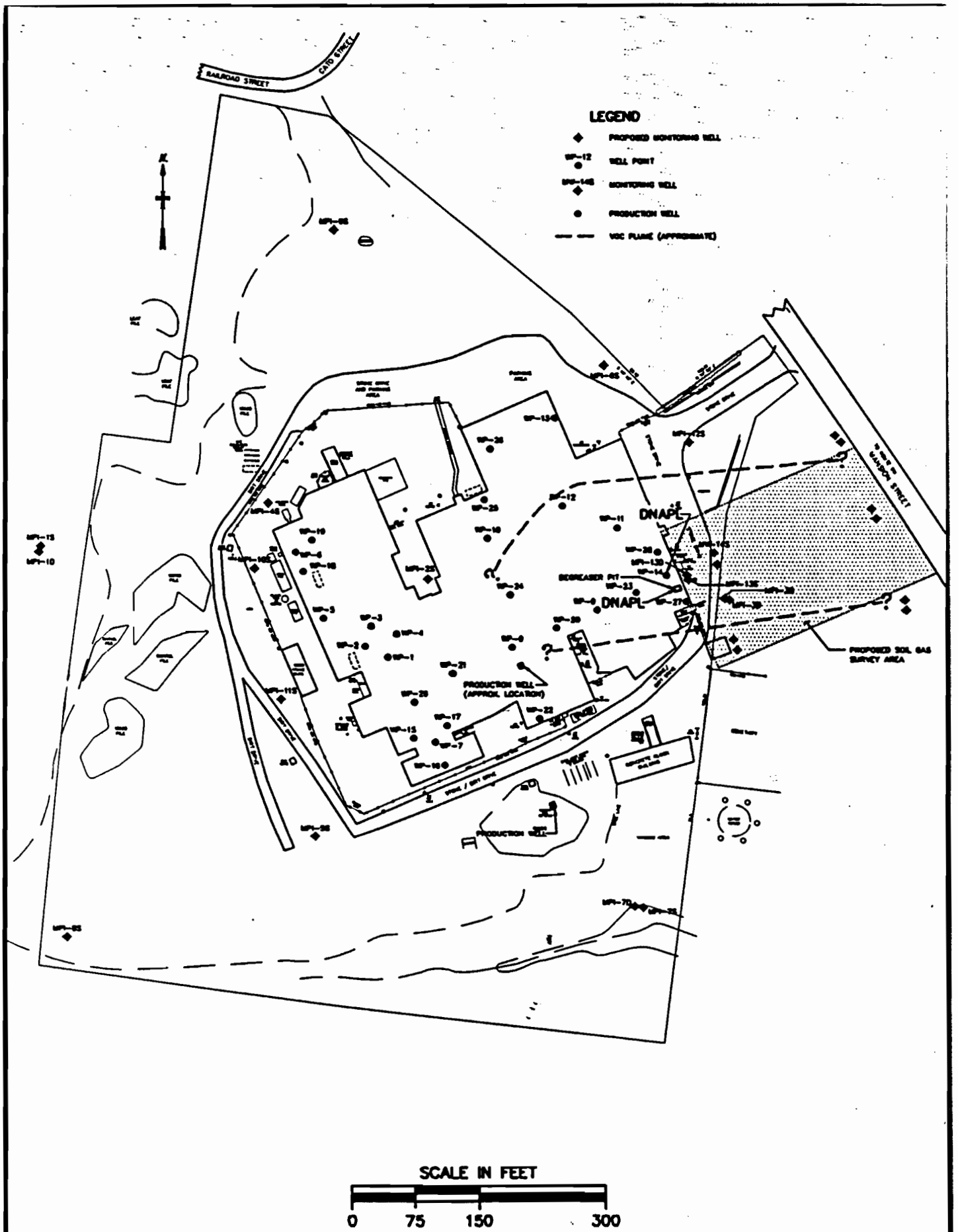
NOT TO SCALE

MALCOLM PIRNIE

AMERICAN VALVE MFG.
COXSACKIE, NEW YORK

OFF-SITE SURFACE SOIL SAMPLING LOCATIONS

Figure 3-1
SEPTEMBER 1994

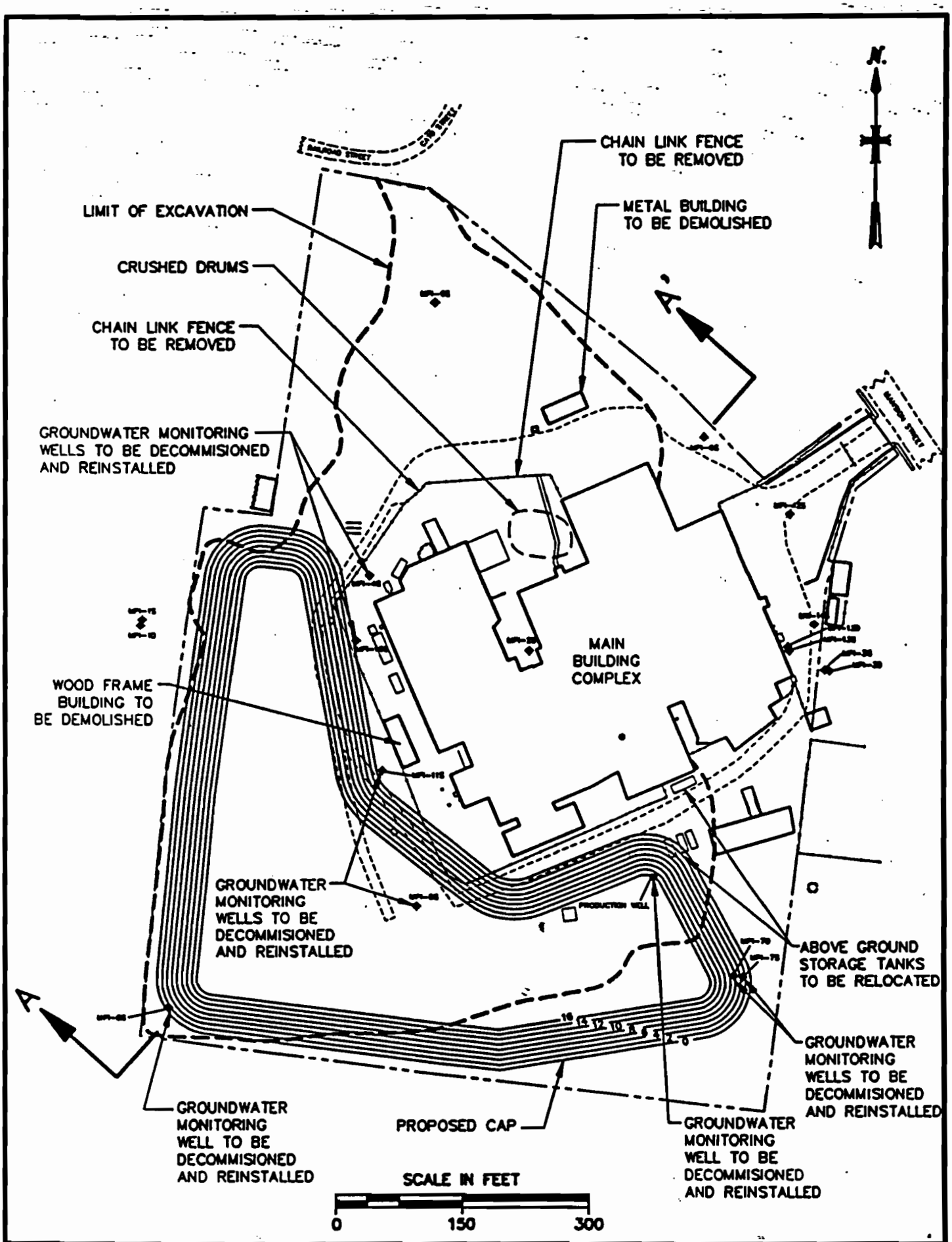


3705 : 0266312900\I:\ACAD\PROJ\02663129\AV-31 SCALE: 1:1; 02/21, 1997 at 10:19

MALCOLM PIRNIE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AMERICAN VALVE MFG., COXSACKIE, NEW YORK

Figure 3-1A



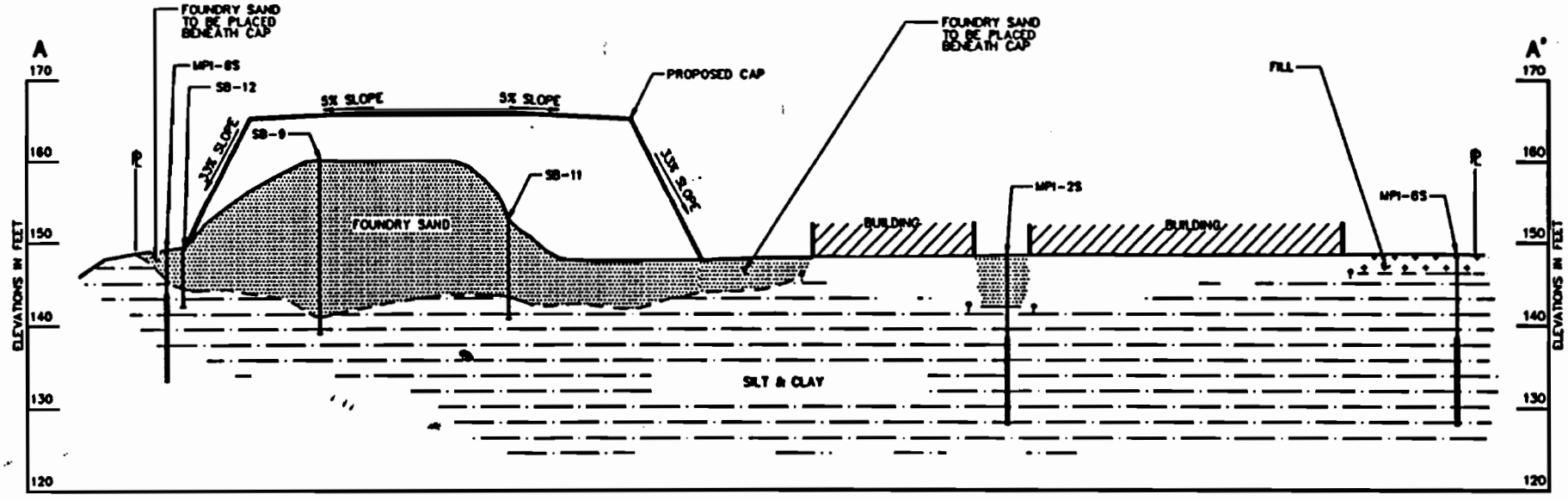
4871 : 0266312900\I: \ACAD\PROJ\02663129\AV-25 SCALE: 1:150i 02/12, 1997 at 13:55

MALCOLM PIRNIE

AMERICAN VALVE MANUFACTURING CORPORATION
COXSACKIE, NEW YORK

SCHEMATIC PLAN VIEW – PROPOSED CAP

FIGURE 3-2



SECTION A–A'

LEGEND

MONITORING WELL

SOIL BORING

HORIZONTAL SCALE IN FEET

0 60 120 240

MALCOLM PIRNIE

AMERICAN VALVE MFG. CORP.
COXSACKIE, NEW YORK

SCHEMATIC CROSS SECTION – PROPOSED CAP

FIGURE 3-2A

APPENDIX A

RESPONSIVENESS SUMMARY
American Valve Manufacturing Site
Operable Unit No. 1 - Foundry Sands
Coxsackie (V), Greene County
Site No. 420002

The Proposed Remedial Action Plan (PRAP) for Operable Unit No. 1 at the American Valve Manufacturing Site, was prepared by the New York State Department of Environmental Conservation (NYSDEC) and issued to the local document repositories on February 28, 1997. This plan outlined the preferred remedial measure proposed for the remediation of foundry sand at the American Valve Manufacturing Site. The preferred remedy is consolidation of the foundry sands into a 5-acre area and capping them with a RCRA compliant multiple geomembrane liner.

The release of the PRAP was announced via hand delivered notice to the neighborhood near the site, mailing direct to approximately 100 addresses identified in the Citizens Participation Plan and publication in the local newspaper (Daily Mail, Catskill)

An availability session and public meeting were held on March 6, 1997 which included a presentation of the Remedial Investigation and Feasibility Study as well as a discussion of the proposed remedy. The meetings provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become a part of the Administrative Record for this site.

The public comment period for the PRAP officially closed March 28, 1997.

The Responsiveness Summary responds to all questions and comments raised during the 30 day comment period.

Attached are the questions received during the comment period, with the NYSDEC response.

Responsiveness Summary

Comment 1: We would all like the building demolished. We want the site delisted. What is the cheapest option to delist the site and demolish the building?

Response 1: The cheapest option to delist the site is Alternative 4B which is Stabilization/Solidification and disposal on-site. The volume of sand would actually increase from additives and bulking and would be left at the site, a vegetative cover would be used to keep the treated sands from blowing and/or corroding. The cost of this alternative is almost $10M.

Comment 2: How good is a change to Class 4 from a banks perspective? Do they still know it is a hazardous waste site?

Response 2: We have no control over a lending institution's activities. However, the site would still be listed in the DEC Registry of Inactive Hazardous Waste Sites. We would hope that a bank would recognize that the change from a Class 2 (a site that poses a significant threat to public health or the environment) to Class 4 (a site that has undergone a remediation to the state's satisfaction). This change identifies a significant improvement, as the site has transitioned from an uncontrolled state to one that is controlled and monitored, with any health or environmental pathways cut.

Comment 3: If you did solidification, how much bigger would the pile be?

Response 3: The calculations would have to be done as part of the design; I would say an increase in volume from 20 to 50 percent would be a good assumption.

Comment 4: Once the remedial work is done, who owns the property?

Response 4: The property is currently carried on the County or Town tax role as delinquent property. The DEC is pursuing cost recovery from the corporation and will place a lein against the property for remedial costs. It is likely the property will be passed to the Village from the County after attempts to collect back taxes fail.

Comment 5: Can you guarantee that the "clean" portion of the site is 100% clean?

Response 5: In order for the DEC to delist the front portion of the site we must demonstrate that cleanup levels have been attained. We anticipate that a successful remedial program can be implemented.

Comment 6: Can you guarantee that the landfill won't leak?

Response 6: The primary issues associated with the foundry sand are wind transport and

erosion, however the cap we propose will also protect the sands from rainfall and percolation. It is interesting to note that after 9 decades of percolation through the unprotected foundry sands, groundwater beyond the site does not show elevated metals concentrations.

Comment 7: If you put all the foundry sand and the building in a landfill aren't you concentrating the contamination? And over time won't this "cook" and become more hazardous?

Response 7: The concentration of metals in the sand is far greater than that which is found on the building. Disposal of the building in the on-site landfill will not increase potential leaching.

Comment 8: We're downgradient of the groundwater problem, what's next? Are you going to sample in our yard?

Response 8: The site is located over a groundwater divide; foundry sands and half the building are on one side, the remaining half of the building and a solvent plume are on the other side. Your house is located in front of the solvent plume. We have tested the well in your shed and we will be doing a soil gas survey on your property - with your permission. We also expect to site new wells, possibly in the Mansion Street right-of-way.

Comment 9: Isn't there also a fuel spill on site too? Nothing was found over where the large tanks are?

Response 9: There is substantial evidence of fuel spillage beneath the floor slab of the building. There is no evidence of spillage around the large tanks. The fuel will be addressed in operable unit 2.

Comment 10: How do you deal with groundwater contamination?

Response 10: Remediation of groundwater is both geologic and chemical specific. In this case we expect to deal with below grade solvent contamination by lowering groundwater and "vacuuming" the volatile organics out of the soil. This method has proved very successful in remediating this type of problem.

Comment 11: This groundwater contamination scares me the most - more than the lead. Those of us nearby and with wet basements could have these vapors in our homes.

Response 11: At this time we have not defined the extent of contamination, this will be done next as part of the OU2 study. We have sampled water from your sump and it does not show site contaminants.

Comment 12: There used to be a pond behind American Valve and there was a stream that

drained away from the homes. There was runoff from the site (during the rainstorms) and down Mansion and Woodburn. Has testing been done in the Woodbeck Street area? By the RR?

Response 12: We have tested surface water leaving the site, it does not contain levels of contaminants that warrant concern.

Comment 13: Why wasn't my well tested? Kids were drinking water from there until 1979?

Response 13: We attempted to locate any existing wells in the immediate site area and arranged to test them. Generally, we work from the source of the problem identified and move out and away.

Comment 14: Is the groundwater stagnant or moving?

Response 14: The groundwater in the sand, which is only a few feet thick, does move. This is the zone we are most concerned with. This is the zone we expect will require treatment to deal with solvent contamination. The groundwater below this zone is in a clay formation so it doesn't move much.

Comment 15: What about when cleanup starts, what additional risks are there?

Response 15: The major concern which we must address is air transport of the fine particles when we consolidate the sand. We will do peripheral monitoring at the site boundary to assure neighbors are safe. Erosion is also an issue so drainage ways will be equipped with siltation controls.

Comment 16: What's the elevation of the proposed landfill?

Response 16: The landfill will be approximately 16 feet tall. The existing main disposal area is currently about 18 feet tall. The new landfill will be virtually the same height as the sands are now. The footprint of the landfill is "L" shaped at the rear of the property and would cover approximately 5 areas.

Comment 17: You can't tell me that this isn't going to affect the homes nearby.

Response 17: The remedy proposed will protect public health and the environment. Furthermore, the landfill design will include visual enhancements such as landscaping or a fence. One asset to the landfill configuration is that it will visually block the unsightly buildings which are seen from Spencer Street. Also, the proposed landfill opens for consideration the ability to include the demolished building with the fill. Our consultant has been tasked with developing a cost comparison between demolition and burial in the landfill and cleaning, with the building remaining.

Comment 18: What's the cost of "total" remediation (Complete/total remediation = get it out of here, trucking it off site). How many alternatives are there? Why would you spend O&M for 4C ($27,000/year)?

Response 18: The most cost effective option to remove the sands is Alternative 4C which would cost almost 23½ million dollars. There are 8 different Alternatives presented which do not include 2 options we bench scale tested (unsuccessfully) to separate brass from the sands. We carried a $27,000 annual O&M cost for alternative 4C because even a removal effort must be documented that it was effective. This cost would actually be re-assessed at every 5-year interval to see if more or less monitoring is needed.

Comment 19: The PRAP is which alternative?

Response 19: The Proposed Remedial Action Plan recommends Alternative 3A which is the RCRA cap. It is superior to the clay cap option in that it is more reliable and cheaper.

Comment 20: This PRAP does not address the building? Why did it take so long and you are not even dealing with the building! Why isn't the building part of this remediation plan?

Response 20: The PRAP does not address the building because at this time the extent of contamination beneath it is not fully defined. We have committed to select the appropriate option for the building prior to the start of construction of the landfill.

Comment 21: When was the money allocated?

Response 21: Money for the Standby Consultant contract was allocated in 1992. We have "ear-marked" 4 million for foundry sand remediation and will encumber the construction money following the detailed design when a more reliable dollar amount is known.

Comment 22: Why wouldn't you include the building in the PRAP? You should have delayed this meeting and waited until you have the building included in the plan. I'm concerned about waiting to fund remediation of the building because sometimes you run into trouble when you have to go back and get funding to finish a project.

Response 22: We do not anticipate any problem with getting the money from Superfund to complete the remedial plan. The main reasons we have not included the building in this operable unit is that it confuses selection for a groundwater remedial plan and is therefore appropriate to be addressed with that portion of the site.

Comment 23: How much input do we have into your PRAP? We want the contamination out of here! Doesn't population enter into it? This solution is not acceptable to the

population.

Response 23: Part of the remedy selection process is community acceptance, as you can see sometimes that is hard to get. When the cost of the proposed remedy is disproportionate as it is in this case, the cost must bear heavily on the choice of remedy.

Comment 24: Is the proposal not to take the contamination away based on the population of this village?

Response 24: The proposal is not based on population in any way. The proposal is based exclusively on risk to you and the environment, our ability to construct it and its cost effectiveness.

Comment 25: At how many sites statewide have you capped foundry sand (w/ the bldg.)? We don't feel this remedy has been tested for a long enough time.

Response 25: It is important to note that after 80 years of waste disposal without a cap, there has been no groundwater contamination from the sands. The proposed cap has been "tried-and-proven" dozens of times for sites with more mobil contaminants. I can't say we have remediated a foundry site because I have not personally had one that was my responsibility.

Comment 26: We're just disgusted that a company can come in and pollute and leave and we all have to pay the bill.

Response 26: Superfund money is only used to clean sites where responsible parties either don't exist or have no money. I can assure you DEC will pursue cost recovery from American Valve.

Comment 27: We're concerned about resale and property value. Our land is junk. Will the bank be willing to lend us money?

Response 27: We believe the proposed remedy will enhance the American Valve property value over what it currently is. We do not have a basis to predict what a bank would say. However, I have assisted two homeowners with re-mortgages by talking to the banks and satisfying their questions.

Comment 28: Will banks be happy with your remediation?

Response 28: Ultimately, the remediated site can be broken into 2 parcels - a back half which would include the landfill and be reclassified Class 4 (see Question 2) and a second half, the front, which would, following remediation, be delisted and be available for unrestricted use.

Comment 29: The stigma of the waste site affects our whole village.

Response 29: We do not have a basis to assess what stigma the presence of a hazardous waste site had or has on a community.

Comment 30: There was a lot being cleaned out on the west end of Spencer. I was told this was American Valve property and they were going to put out foundry sand on that property. Is this true?

Response 30: (Response from audience) No, the home owner is just cleaning up the vacant lot.

Comment 31: Will the contamination migrate to the two reservoirs and contaminate them?

Response 31: (Where are they located - explanation) No.

Comment 32: Is there no place to put this sand? Do you not know where to put it? Are these the reasons why it isn't going off-site?

Response 32: The problem with removing the contaminated sand is twofold, first the handling and transportation cost for this hazardous waste is extremely high. Second, the disposal cost as hazardous waste is also very high. We have 100,000 cubic yards of contaminated sand to deal with. Therefore, volume multiplied by cost brings us to the high treatment/disposal costs.

Comment 33: How long has American Valve been one of the top ten most hazardous sites in New York State?

Response 33: American Valve was never one of the top ten hazardous waste sites in the state.

Comment 34: What about putting a double liner underneath the landfill to protect downward migration?

Response 34: Our proposal has been evaluated by DEC personnel who approve new hazardous waste landfills and been approved. Groundwater migration from this waste is not the problem; the problem is windblown transport and erosion. The cap would negate groundwater transport to the degree necessary.

Comment 35: By only looking at chemicals you're overlooking the psychological stress to nearby residents of living near a site. Can't put a money value on the stress. Should do the right thing and remove contamination off site.

Response 35: The DEC did not attempt to evaluate monetary value of psychological stress.

Comment 36: No plan should move forward without a proposal for dealing with the building.

Response 36: DEC is committed to addressing the building fate and will be coming back down with an action plan to address the building before starting the construction of the landfill.

Comment 37: This remedy effects property value and further evaluation should include the dollars lost to decreased property value. Therefore the dollar amount presented is not as clear-cut as presented.

Real answer is to take it off site (sand and building), and in the long run that's most cost effective.

Let me ask you how do we move from landfill to trucking it off site without stopping to consider solidification?

Response 37: Rendering the waste non-hazardous at a cost of nearly 10M dollars is clearly the next option for consideration.

Comment 38: Please elaborate on the solidification process.

Response 38: The solidification process basically uses the addition of cement or fly-ash to bind the brass matrix into the sand making the resulting mixture unsusceptible to leaching.

Comment 39: We don't want the toxic stuff left. Why can't we do solidification?

Response 39: The proposed remedy to landfill the sand "as is" is protective of human health and the environment, it cuts the potential exposure route. It is a reliable and effective way to minimize risk, it is "feasible" and cost-effective.

Comment 40: With solidification is the site a Class four, five or delisted?

Response 40: The site could be delisted if the waste was rendered non-hazardous.

Comment 41: I called 22 area banks and asked them if they would lend to a homeowner near the site. They said that they would ask for an environmental study of the property and the homeowner would have to pay for the study. We can't pay for that!

Response 41: The environmental impact relative to the site has already been done, it is the RI/FS for the site. I have helped two area homeowners adjacent to the site to resolve questions from the bank.

Comment 42: Your letter may help with the bank, but what about prospective buyers?

Response 42: We will be available to explain, at length, the remedy and why it was selected.

Comment 43: This also affects your appraisal and lowers the value.

Response 43: As previously discussed, there are other avenues homeowners can pursue to address this issue. (Note: This could include a class action against American Valve.)

Comment 44: The label of a hazardous waste site , even a class 4 is still a stigma.

The Village should get involved. Different engineering firms will give you the outcome the payer wants.

Response 44: The proposed remedy has undergone peer review within DEC and received concurrence. If this site was a PRP lead, the same proposal would result.

Comment 45: Who will own the landfill?

Response 45: The State will assume responsibility for site operation and maintenance, ownership would probably revert to the Town following listing for delinquent tax.

Comment 46: If proposal is $2.5 million without demolishing the building, how much will it be with the demolition? Would it be closer to $10 million?

Response 46: Preliminary cost estimates indicate either demolition with incorporation into the landfill or cleaning the building and leaving it standing will both cost around 1 million dollars.

Comment 47: The "soil is slowly moving" so won't it effect the cap and cause a breech?

Response 47: No.

Comment 48: Is this project eligible for money under Clean Air/Clean Water Bond Act and Brownfields?

Could you use the Brownfields Program to deal with the building if you took away the contaminated sand?

Response 48: As it is today it would not qualify because it is a class 2 Inactive Hazardous Waste Site.

Comment 49: What about disposal by rail?

Response 49: We looked at all viable transportation alternatives.

Comment 50: You hadn't looked at the property values of neighboring properties over time. What is the long term effect on property values? Landfill may not work how we think it will. Need to look at real economics. DEC needs to re-think how the true costs are developed. Four areas that should be looked at: Economic (loss of taxes) to the community; extra money for loans to cover risk; lower property value; economic loss, not having a business/homes come into this area and increasing value in the community.

Response 50: We have determined that economic factors (loss of taxes, etc.) will not alter our remedy selection.

Comment 51: Will the height of the landfill be taller if you add the building?

Response 51: The height of the landfill would not change, some of the "L" shape would be filled in.

Comment 52: My appraisal reduced my property value by $15,000 due to the presence of an old factory and by 50% due to it's proximity to a hazardous waste site.

Response 52: Not knowing specific details or history, no appropriate response could be given.

Comment 53: So if we truck sand off-site and cleanup the building what happens with the building?

Response 53: The building, if clean, would be left standing at the site.

Comment 54: How much longer is this going to take to decide if we "change the rules"? (Meaning looking at the economic factors)

Response 54: It would take some time to address, possibly several months.

Comment 55: Is money from the Environmental Quality Bond Act available? Then why are they using Federal law?

Response 55: We are using 1986 Bond Act, not the 1996 Bond Act (explanation).

APPENDIX B

ADMINISTRATIVE RECORD

The following documents, which have been available at the document repositories, constitute the Administrative Record for the American Valve Manufacturing Site (OU-1), Remedial Investigation/Feasibility Study.

MAY 1993:	Work Plan
APRIL 1994:	Phase I Remedial Investigation Report
AUGUST 1995:	Revised Work Plan
NOVEMBER 1996:	Bench-Scale Testing Work Plan
UNDATED:	Analytical Data Summaries
FEBRUARY 1997:	Qualitative Risk Assessment
FEBRUARY 1997:	Habitat Assessment Report
FEBRUARY 1997:	Proposed Remedial Action Plan, Operable Unit No. 1
MARCH 1997:	Feasibility Study Report; Operable Unit No. 1