# RECORD OF DECISION

## ENDICOTT JOHNSON CORPORATION, FRANKLIN STREET PROPERTY

(SITE NO. 704018)

PREPARED BY:

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

DIVISION OF HAZARDOUS WASTE REMEDIATION

50 WOLF ROAD, ALBANY, NEW YORK 12233

SEPTEMBER 1990

## DECLARATION FOR THE RECORD OF DECISION

## SITE NAME AND LOCATION

Endicott Johnson Corporation, Franklin Street Property, Endicott, Broome County, New York

Site Code: 704018

## STATEMENT OF PURPOSE

This document describes the selected remedial action for the Endicott Johnson Corporation - Franklin Street Site, developed in accordance with the New York State Environmental Conservation Law (ECL), and is consistent with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 USC Section 9601, et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the National Contingency Plan (NCP), 40 CFR Part 300, November 20, 1985.

## ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Record of Decision, present a current or potential threat to public health, welfare, or the environment.

## STATEMENT OF BASIS

This decision is based on the administrative record for the Site. A copy of the record is available for public review and/or copying at the following locations:

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233
Hours: 8:30 am - 4:45 pm (Monday - Friday)

New York State Department of Environmental Conservation
Flood Control Maintenance Building
Route 11
Kirkwood, New York 13795
Hours: 8:30 am - 4:45 pm (Monday - Friday)

George F. Johnson Memorial Library
Reference Section
Endicott, New York 13760
Hours: 9:00 am - 9:00 pm (Monday - Friday)
9:00 am - 4:00 pm (Saturday)

The Following documents are the primary components of the administrative record:

Remedial Investigation/ Feasibility Report, Endicott Johnson Corporation, Franklin Street Site, prepared by O'Brien & Gere Engineers, Inc., July 1989 (revised October 4, 1989).

Proposed Remedial Action Plan, Endicott Johnson Corporation, Franklin Street Property Site, prepared by New York State Department of Environmental Conservation, June 1990.

## DESCRIPTION OF SELECTED REMEDY

The major components of the selected remedy can be summarized as follows:

- Extraction of on-site contaminated groundwater and the treatment of groundwater using air stripping technology

- Vacuum extraction of contaminants, above the water table, within on-site soil

## DECLARATION

The selected remedy is designed to be protective of human health and the environment, is designed to comply with applicable State environmental quality standards and is cost effective. This remedy satisfies the Department's preference for treatment that reduces the toxicity, mobility, or volume of hazardous substances, pollutants or contaminants as the principal goal.

Date

Edward O. Sullivan
Deputy Commissioner
Office of Environmental Remediation

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## I. SITE LOCATION AND DESCRIPTION

The site is relatively flat, approximately 1 acre in size and is located southwest of the intersection of Clark Street and Franklin Street, in Endicott, Broome County, New York. The site is currently a vacant lot located in a primarily industrial area with a residential area at the top of a slope located several hundred feet to the northwest of the site. Figure 1 indicates the location of the site with respect to the surrounding area.

## II. SITE HISTORY

From approximately 1918 to 1983 the site was utilized as a shoe cement manufacturing facility. As part of the manufacturing process, twelve underground storage tanks were used to hold various chemicals. The chemicals included toluene, acetone, methyl ethyl ketone, ethyl acetate, naphtha and isopropyl alcohol.

In 1983, the twelve underground storage tanks, used for chemical storage, and associated piping were excavated and disposed of off-site at an appropriate disposal facility. In 1984, the two buildings located on the property were demolished.

A Remedial Investigation/ Feasibility Study (RI/FS) was undertaken by the Endicott Johnson Corporation's consultant (O'Brien & Gere Engineers, Inc., of Syracuse, New York) and monitored by NYSDEC staff. The RI/FS process began in September of 1986 to determine the nature, extent, and source of contamination at the Site, to assess the risks to the public and to the environment, and to evaluate alternatives for reducing and/or eliminating those risks.

## III. CURRENT SITE STATUS

The major source of contamination at the site resulted from spills and the leakage of the contents of the twelve underground storage tanks. The major source of contamination was eliminated when the underground storage tanks and associated piping were removed in 1983. Although the major source of contamination has been removed, the Remedial Investigation of the Site determined that previous spills or leaks at the site have resulted in the contamination of soils and groundwater at the site. Toluene is the most prevalent contaminant still remaining at the site. There are, however, other contaminants that were found at the site. These contaminants include: 1,1-dichloroethane, benzene, chloroethane, chloroethylene, methylene chloride, 1,2-dichloroethane, 1,1,1-trichloroethane, ethylbenzene, xylenes, methyl ethyl ketone, ethyl acetate, acetone and dibromochloromethane. Table 1 presents the concentrations of various contaminants found at the site.

**FIGURE 1**

**Endicott Johnson Corporation**
**Franklin Street Property Site**

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**(Source: USGS 7.5 Minute Series, Endicott, New York)**

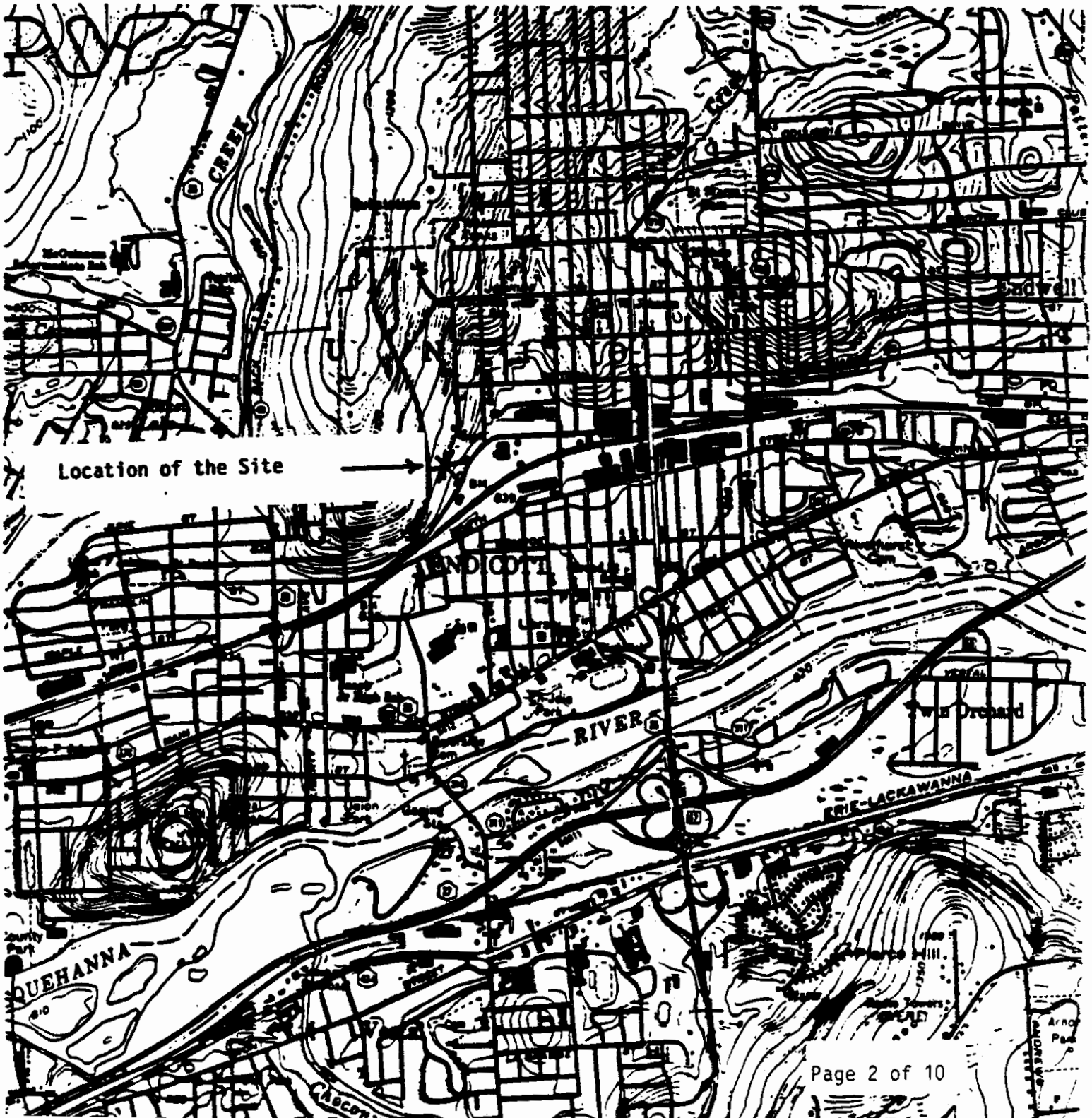

TABLE 1

SUMMARY OF CONTAMINATION AT THE SITE

| Contaminant | Groundwater Samples | | | Soil Samples (1) | |
|---|---|---|---|---|---|
| | Maximum Levels (ppb) | Mean (2) Levels (ppb) | Standards (3) (ppb) | Maximum Level (ppb) | Mean (2) Level (ppb) |
| Acetone | ND ( <500 ) | ND ( <245 ) | 50 | 6,300,000 | 168,000 |
| Benzene | 210 | 19 | 5 | 230,000 | 10,000 |
| Chloroethane | 2200 | 161 | 5 | ND ( <77,000 ) | ND ( <16,233 ) |
| Chloroethylene | 16 | ND ( <11 ) | 5 | ND ( <77,000 ) | ND ( <16,233 ) |
| 1,1 Dichloroethane | 530 | 82 | 5 | <39,000 | <14,643 |
| 1,2 Dichloroethane | 10 | ND ( <4 ) | 5 | <39,000 | <14,643 |
| Dibromochloromethane | ND ( <10 ) | ND ( <3 ) | 50 | 100,000 | <14,618 |
| Ethyl Acetate | ND ( <500 ) | ND ( <500 ) | 50 | 1,900,000 | 129,000 |
| Ethylbenzene | 15 | 3 | 5 | <39,000 | <14,668 |
| Methylene Chloride | 4 | ND ( <3 ) | 5 | 39,000 | <14,643 |
| Methyl Ethyl Ketone | ND ( <500 ) | ND ( <245 ) | 50 | 1,160,000 | 97,000 |
| Toluene | 2000 | 194 | 5 | 37,000,000 | 1,961,000 |
| 1,1,1 Trichloroethane | 180 | 6 | 5 | ND ( <39,000 ) | ND( <14,643 ) |
| Xylenes | 36 | 7 | 5 | 150,000 | <34,353 |

NOTES: (1) The target cleanup level for soils was based on toluene, the most prevalent contaminant on site. It was determined that a soil cleanup level of 10ppm of toluene would address environmental and health concerns. For a more detailed description of the determination of the soil cleanup level, consult the RI/FS Report.

(2) When an environmental sample is highly contaminated with various chemical pollutants the analytical instrument detection limit usually increases and in this case it was as high as 77,000ppb. A detection limit of 77,000ppb means that the actual concentration is somewhere between 0ppb and 76,999ppb. When the maximum and mean levels were developed the detection limits were used as an indication of the possible presence of these contaminants.

(3) The standards for groundwater are from the New York State Sanitary Code Subpart 5-1, amendment, entitled "Standards Limiting Organic Contamination In Drinking Water." The only exception is the groundwater standard for chloroethylene (vinyl chloride), which is from the New York State Codes, Rules and Regulations, Title 6, Chapter X, Part 703.5.

## IV. ENFORCEMENT STATUS

On September 1, 1986 the Commissioner of the New York State Department of Environmental Conservation signed an Order on Consent which required the Endicott Johnson Corporation (EJC) to develop and implement a remedial investigation and feasibility study with respect to the Site. The Department is currently negotiating a new Order on Consent, with the EJC, which will require the EJC to design and construct the selected remedial alternative at the Site.

## V. GOALS FOR THE REMEDIAL ACTIONS

The existing contamination of both soil and groundwater require remedial actions to protect the human health and the environment from the site related contamination. The remedial action goal, for the contaminated soil, will be achieved by reducing, to an acceptable level, the contaminants in the soil remaining at the location of the former underground storage tanks. The remedial action goal for the contaminated groundwater will be achieved by controlling the migration of contaminants in the groundwater, recovering the contaminated groundwater and treating the groundwater to remove the chemical contaminants.

## VI. SUMMARY OF THE REMEDIAL ALTERNATIVES

### SOIL TREATMENT ALTERNATIVES

#### In-Situ Bioremediation (Alternative 1A)

This alternative consists of tilling nutrients and microbes into layer of the contaminated soil and allowing the microbes to degrade the contaminants within the soil. Once a layer of soil is remediated it would be removed from the area of contamination and stockpiled on-site. Nutrients and microbes would be added to the next layer of soil and allowed to degrade the contaminants in that layer. This layer would then be stockpiled and the process would continue until the contaminated soil has been remediated to acceptable levels. The remediated soils would then be placed back into the excavation. A 5-year groundwater monitoring program is included as part of this alternative.

#### Vacuum Extraction (Alternative 1B)

This alternative consists of the extraction of gases within the contaminated soils. This would be accomplished through the use of nine extraction wells. A pumping system would be be used to extract gases from the contaminated soils. The discharge of gases to the atmosphere would be controlled to within acceptable levels. A 5-year groundwater monitoring program is included as part of this alternative.

### Excavation and Off-Site Incineration (Alternative 1C)

This alternative would consist of the excavation of appropriate areas of contaminated soil and removal of the soil to an appropriate incineration facility. The area from which the contaminated soil was removed would be backfilled with clean soil. A 5-year groundwater monitoring program is included as part of this alternative.

### Excavation and On-Site Incineration (Alternative 1D)

This alternative involves the excavation of appropriate areas of contaminated soil and incineration on-site within an incinerator acceptable to NYSDEC. The area from which the contaminated soil was removed would be backfilled with clean soil. A 5-year groundwater monitoring program is included as part of this alternative.

**Estimated Costs and Restoration Times for each Soil Treatment Alternative**

| Alternative | Estimated Capital Cost | Estimated Present Worth of Annual O&M Costs | Estimated Total Cost | Estimated Restoration Time |
|---|---|---|---|---|
| In-Situ Bioremediation (Alternative 1A) | $107,010 | $19,740 | $126,750 | 2 Years |
| Vacuum Extraction (Alternative 1B) | $110,990 | $19,740 | $130,730 | 1 Year |
| Excavation and Off-Site Incineration (Alternative 1C) | $2,110,440 | $19,740 | $2,130,180 | 1 Year |
| Excavation and On-Site Incineration (Alternative 1D) | $615,080 | $19,740 | $634,820 | 2 Years |

## GROUNDWATER TREATMENT ALTERNATIVES

### Groundwater Recovery and Treatment (Air Stripping)

This alternative involves pumping contaminated groundwater into a system which transfers the volatile contaminants from the water into the air. The discharge of contaminants to the atmosphere would be controlled to within acceptable levels.

**Groundwater Recovery and Treatment (Carbon Absorption)**

This alternative involves pumping contaminated groundwater into a system which contains granular activated carbon. The volatile contaminants within the groundwater are removed from the groundwater and adhere to the activated carbon. Once the effectiveness of the activated carbon has been exhausted the carbon is replaced.

**Estimated Costs and Restoration Times for each Groundwater Treatment Alternative**

| Alternative | Estimated Capital Cost | Estimated Present Worth of Annual O&M Costs | Estimated Total Cost | Estimated Restoration Time |
|---|---|---|---|---|
| Groundwater Recovery and Treatment (Air Stripping) | $76,860 | $37,100 | $113,960 | 5 Years |
| Groundwater Recovery and Treatment (Carbon Absorption) | $78,820 | $164,550 | $243,370 | 5 Years |

CONTAINMENT ALTERNATIVE

**Capping with Groundwater Cutoff Wall (Alternative 2A)**

The containment alternative would consist of the construction of a wall around the contaminated soil along with a clay cap, at the ground surface, in the area of the contaminated soil. This alternative will contain the contaminated soil rather than reduce the level of contamination within the soil.

**Estimated Costs and Restoration Time for the Containment Alternative**

| Alternative | Estimated Capital Cost | Estimated Present Worth of Annual O&M Costs | Estimated Total Cost | Estimated Restoration Time |
|---|---|---|---|---|
| Capping with Groundwater Cutoff Wall (Alternative 2A) | $122,790 | $70,096 | $192,890 - | Not Applicable |

INSTITUTIONAL CONTROL ALTERNATIVE

**No Action Alternative (Alternative 3A)**

The alternative would consist of modifying the property deed to indicate the possible environmental and health effects associated with disturbing the contaminated soil. Other deed restrictions would include prohibiting excavation activities or the installation of groundwater wells at the property. This alternative would not contain or reduce the level of contamination in the soil at the site.

**Estimated Costs and Restoration Times for the Institutional Control Alternative**

| Alternative | Estimated Capital Cost | Estimated Present Worth of Annual O&M Costs | Estimated Total Cost | Estimated Restoration Time |
|---|---|---|---|---|
| No Action Alternative (Alternative 3A) | $10,790 | $70,100 | $80,890 | Not Applicable |

## VII. EVALUATION OF REMEDIAL ALTERNATIVES

The alternatives were evaluated with respect to five criteria. Those five criteria are as follows:

- **Overall Protection of Human Health and the Environment**

  The various remedial alternatives were evaluated as to whether they are believed to be able to provide adequate protection of human health and the environment, once the remedial alternative has been completed.

- **Compliance with Clean-up Levels**

  The various remedial alternatives were evaluated as to whether or not they will be able to achieve the desired clean-up levels. The chemical toluene is the most prevalent contaminant in the soils at the Site, therefore, it was used to determine a clean-up level in soils. The target clean-up level of toluene in soils that was determined to be acceptable was 10mg/kg. The target clean-up level in the groundwater would be the standards referred to in Table 1.

- **Reduction of Toxicity, Mobility or Volume of Contaminants**

  The various remedial alternatives were evaluated as to whether or not they will reduce the toxicity (T), mobility (M) or volume (V) of contaminants at the Site.

- **Implementability**

  The various remedial alternatives were evaluated as to whether they are easy, moderate or difficult to implement. There are various factors which were taken into account when determining implementability. The factors include permit requirements, availability of needed equipment, complexity of remedial system, tests runs, maintenance, etc.

- **Estimated Total Cost**

For a summary of the Department's evaluation of the various remedial alternatives, with respect to the preceding five criteria, see Table 2.

## VIII. PUBLIC PARTICIPATION

The New York State Department of Environmental Conservation (NYSDEC) relies on public input to insure that the remedy selected for Inactive Hazardous Waste Sites meet the needs of the local community in addition to being an effective solution to the problem.

A Public Notice ran in the July 26, 1990 issue of the Press & Sun-Bulletin which briefly discussed the Proposed Remedial Action Plan (PRAP), made the public aware of a public meeting which was going to be held, and requested that they forward any comments they may have on the Site to the NYSDEC Project Manager.

The PRAP and the RI/FS Report were made available for public viewing at the George F. Johnson Memorial Library, the Endicott Municipal Building and at the NYSDEC Kirkwood Office.

A public meeting was held on August 2, 1990 at the Endicott Municipal Bldg., Counsel Chambers, 1009 East Main Street, Endicott, New York at 7:00PM to present both the findings of the RI/FS Report and the proposed remedy and to seek public comment on the preferred remedial action.

Written and verbal comments on the Proposed Remedial Action Plan were accepted during a 30-day comment period which concluded on August 29, 1990.

After the 30-day comment period had concluded NYSDEC staff evaluated the public concerns raised and determined that the preferred remedial action was appropriate and would become the selected remedial action.

TABLE 2

Evaluation of the Various Remedial Alternatives

| Alternative | Overall Protection of Human Health and the Environment | Compliance with Clean-up Levels | Reduction of Toxicity (T), Mobility (M) or Volume (V) of Contaminants | Implementability | Estimated Total Cost |
|---|---|---|---|---|---|
| In-Situ Bioremediation (Alternative 1A) | YES | YES | T,M,V | MODERATE | $126,750 |
| Vacuum Extraction (Alternative 1B) | YES | YES | T,M,V | MODERATE | $130,730 |
| Excavation and Off-Site Incineration (Alternative 1C) | YES | YES | T,M,V | EASY | $2,130,180 |
| Excavation and On-Site Incineration (Alternative 1D) | YES | YES | T,M,V | DIFFICULT | $634,820 |
| Groundwater Recovery and Treatment (Air Stripping) | YES | YES | T,M,V | MODERATE | $113,960 |
| Groundwater Recovery and Treatment (Carbon Absorption) | YES | YES | T,M,V | MODERATE | $243,370 |
| Capping and Groundwater Cutoff Wall (Alternative 2A) | YES | NO | M | MODERATE | $192,890 |
| No Action (Alternative 3A) | NO | NO | NONE | EASY | $80,890 |

## IX. SUMMARY OF GOVERNMENT DECISION

The selected remedial alternative for the Site consists of the following:

1) vacuum extraction of contaminated soils
2) collection and treatment of groundwater by means of air stripping

This alternative will permanently reduce the toxicity of the soils and groundwater at the Site, as well as reduce the volume and mobility of the volatile organic contamination in the soils and groundwater at the Site. The preferred remedial alternative represents the best balance among the evaluation criteria used to evaluate the various remedial alternatives.

The estimated total cost of the preferred remedial alternative (vacuum extraction and air stripping) is $244,690.

# APPENDIX A

# RESPONSIVENESS SUMMARY

# RESPONSIVENESS SUMMARY TO INVITATION FOR COMMENTS ON THE ENDICOTT JOHNSON CORPORATION, FRANKLIN STREET PROPERTY REMEDIAL INVESTIGATION/ FEASIBILITY STUDY AND PROPOSED REMEDIAL ACTION PLAN

A Public Notice was published on July 26, 1990 which briefly discussed the Proposed Remedial Action Plan, made the public aware of the August 2, 1990 public meeting, and requested that the public forward any comments they may have on the Site to the Department's Project Manager.

A Public Meeting was held on August 2, 1990 at the Endicott Municipal Building to discuss the Remedial Investigation/ Feasibility Study report and the Proposed Remedial Action Plan.

A Transcript of the public meeting is available for review at the following locations:

- George F. Johnson Memorial Library, Reference Section
  607-754-1746
- New York State Department of Environmental Conservation,
  Kirkwood, New York
  607-773-7763
- New York State Department of Environmental Conservation,
  Albany, New York
  518-457-5637

## Written Comments received:

No written comments were received by the Department during the public comment period.

## Public Meeting Questions:

The following is a discussion of the significant concerns that were raised at the public meeting. For a complete discussion of the public meeting, the public meeting transcript should be reviewed.

Concern: (Edward Adingman - Resident) If the ground is going to freeze without any cover over it, what keeps the 1-foot tower full of water from freezing?

Response: (NYSDEC) The system will not meet our needs if freezing is a problem. Therefore, the freezing issue is one thing we will be looking at during the Department's evaluation of the remedial design.

Concern: (Edward Adingman - Resident) Low weight molecular materials, such as those of concern at this site, are consumed by bacteria in the ground. So it's a strong point for doing nothing.

Response: (NYSDEC) One thing the Department has as a concern is to clean-up the Site, as quick as possible, so that contaminants at the Site will not further contaminate the environment. In addition we would like to see that the Site is returned to a useful parcel of land.

Concern: (Frank Hale - O'Brien & Gere Engineers, Inc.) There is literature starting to come out to suggest that vacuum extraction has some fairly measurable impacts on the water quality associated with a site. And one of the things the Department might want to be considering is the vacuum extraction option, without groundwater treatment, then evaluating groundwater quality.

Response: (NYSDEC) Since the levels of contamination in the groundwater at the Site exceed State Standards, the groundwater contamination problem at the Site warrants clean-up. In order to prevent the contamination at the Site from further contaminating the groundwater, a groundwater remediation program must be implemented as the same time as the soil remediation program is implemented.

# APPENDIX B

# ADMINISTRATIVE RECORD

## ADMINISTRATIVE RECORD

1. "Remedial Investigation/ Feasibility Report, Final Report, Endicott Johnson Corporation, Franklin Street Property" by O'Brien & Gere Engineers, Inc., July 1989 (revised October 4, 1989)

2. "Proposed Remedial Action Plan, Endicott Johnson Corporation, Franklin Street Property" by New York State Department of Environmental Conservation, June 1990

3. "Public Hearing Transcript," Central New York Reporting Service, August 2, 1990

4. "Responsiveness Summary for the Endicott Johnson Corporation, Franklin Street Property" by New York State Department of Environmental Conservation, September 1990

5. "Record of Decision for Endicott Johnson Corporation, Franklin Street Property" by New York State Department of Environmental Conservation