



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

**DECLARATION FOR THE EXPLANATION  
OF SIGNIFICANT DIFFERENCES  
OTTATI AND GOSS / KINGSTON STEEL DRUM  
SUPERFUND SITE  
September 28, 1999**

**Site Name and Location**

Ottati and Goss / Kingston Steel Drum  
Operable Unit 4  
Kingston, New Hampshire

**Identification of Lead and Support Agencies**

Lead Agency: **US Environmental Protection Agency**  
Support Agency: **NH Department of Environmental Services**

**Statement of Purpose**

This decision document sets forth the basis for the determination to issue the attached Explanation of Significant Differences (ESD) for the Ottati and Goss / Kingston Steel Drum Superfund Site (O&G/KSD Site) in Kingston, New Hampshire.

**Statutory Basis for Issuance of the ESD**

Under Section 117(c) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)<sup>1</sup> if the US Environmental Protection Agency (EPA) determines that the remedial action being undertaken at a site differs significantly from the Record of Decision (ROD) for that site, EPA shall publish an explanation of the significant differences between the remedial action being undertaken and the remedial action set forth in the ROD and the reasons such changes are being made. EPA policy and regulations<sup>2</sup> indicate that an ESD, rather than a ROD amendment, is appropriate where the changes being made to the remedy are significant but do not fundamentally alter the overall remedy with respect to scope, performance, or cost. After review of the proposed changes to the remedy, EPA has determined that the adjustments to the ROD provided in the ESD are significant but do not fundamentally alter the overall remedy for the Site with respect to scope, performance, or cost. Therefore, this ESD is being properly issued.

<sup>1</sup> 42 U.S.C. §9617(c).

<sup>2</sup> See 40 CFR 300.435(c) (National Contingency Plan); EPA Office of Solid Waste and Emergency Response Directive 9355.3-02.



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In accordance with Section 300.435(c) of the National Contingency Plan (NCP), this ESD and supporting documentation will become part of the Administrative Record which is available for public review at both the EPA Region I Records Center in Boston, Massachusetts, and the Town Hall in Kingston, New Hampshire.

## **Background**

On January 11, 1987 EPA issued a ROD selecting a remedy for the cleanup of the O & G / KSD Superfund Site. The ROD identified several actions to be taken which would address the soil, groundwater, sediment and building contamination: excavation of approximately 5,000 cubic yards (cy) of Polychlorinated biphenyl (PCB) contaminated soil followed by destruction of contamination by incineration; aeration of approximately 14,000 cy of contaminated soils; installation of a ground water pump and treat system; site grading and disposal of contaminated building materials; site cover; and ground water monitoring, drinking water surveillance and pond monitoring. The ROD established cleanup levels for soils of: 20 part per million (ppm) for PCBs and 1ppm for volatile organic compounds (VOCs) in soils; and 1 ppm for PCBs in sediments. Ground water clean up goals were established to meet a  $10^{-5}$  risk level. The KSD area of the site is owned by Great Lakes Container Corporation (GLCC) and some documents refer to the site as the O&G/GLCC site.

## **Overview of the ESD**

Based on the information and data generated since the issuance of the January 16, 1987 ROD, as well as the completion of several actions specified in the ROD, the soils and sediment portion of the remedy as described in the ROD has been modified. Additionally, the implementation of institutional controls will be required.

### **Change in Volume of KSD Area Soils**

The ROD estimated that approximately 5,000 cy of soil in the KSD area of the site and sediment from the South Brook and down gradient marsh contaminated with PCBs and /or VOCs be excavated and treated by incineration. The removal of the building in 1993-4 resulted in discovery of 14 unknown underground tanks and contaminated soil not identified in the ROD. Data gathered after removal of the building and during post ROD design studies have determined that about 7650 cubic yards of material from the KSD portion of the site need to be excavated and treated. The cleanup level for KSD soils established in the ROD is 20 ppm and is not affected by this ESD.

### **Change in Sediment Area to be Remediated**

The Remedial Investigation/Feasibility Study identified a small area of South Brook upstream and downstream of a culvert under Route 125 which needed remediation. The ROD included these areas as part of the remediation decision that would be subject to further definition in the design. Design studies using better analytical techniques identified a larger area in the wetland east of the culvert which needs to be

remediated. The ROD identified a clean up level of 1ppm for sediment excavation. A site specific ecological risk assessment concluded that a clean up level of 10 ppm would significantly reduce the ecological risk to acceptable levels. The area to be remediated has increased from two small areas which total about 3500 square feet to about five acres.

#### Change in Remediation Technology

The ROD identified two technologies for soils treatment: (1) thermal aeration for VOCs and low level PCB soils; and, (2) incineration for VOCs and high level PCB soils. Both technologies are thermal removal /destruction treatment technologies. The thermal aeration process was successfully used on the O&G portion of the site to treat 4700 cy of contaminated soil. The remaining soils located on the GLCC portion of the site were to be treated using incineration. Design studies have shown it is more cost effective to treat the KSD area PCB soils using thermal desorption. This technology is within the category of thermal removal / destruction and is a minor change to the remedy. The PCBs collected with the thermal desorption technology would be sent off-Site for incineration, thus the preference for destruction of contamination in the ROD remains.

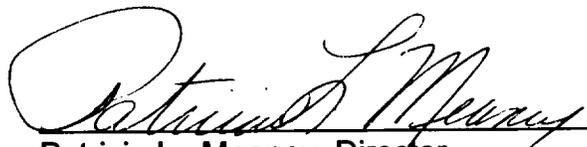
#### Change in Future Use

The ROD formulated the future use at the site as a residential scenario. The future use of the site is being changed to non-residential because of the past use of the site and its location on a major state highway. The site is presently owned by Great Lakes Container Corporation, a dissolved corporation. EPA anticipates that the State of New Hampshire will obtain title to the GLCC property through eminent domain proceedings which will allow institutional controls (ordinarily an easement) to be placed on the property restricting it to commercial use. The future use of the site as a non-residential commercial property maintains the ROD cleanup level of 20 ppm for human exposure to PCBs in soils.

#### Declaration

For the foregoing reasons, by my signature below, I approve the issuance of an Explanation of Significant Differences for the Ottati and Goss / Kingston Steel Drum Superfund Site in Kingston, New Hampshire, and the changes stated therein.

9/28/99  
Date

  
Patricia L. Meaney, Director  
Office of Site Remediation & Restoration  
USEPA, Region I



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION I  
 JOHN F. KENNEDY FEDERAL BUILDING  
 BOSTON, MASSACHUSETTS 02203-0001

**EXPLANATION OF SIGNIFICANT DIFFERENCES  
 OTTATI AND GOSS / KINGSTON STEEL DRUM SUPERFUND SITE**

**I. Introduction**

**A. Site Name and Location**

Site Name: **Ottati and Goss/Kingston Steel Drum Site,  
 Operable Unit 4**

Site Location: **Town of Kingston, New Hampshire**

**B. Lead and Support Agencies**

Lead Agency: **US Environmental Protection Agency**

Support Agency: **NH Department of Environmental Services**

**C. Legal Authority**

Under Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),<sup>1</sup> Section 300.435(c) of the National Contingency Plan (NCP),<sup>2</sup> and U.S. Environmental Protection Agency (EPA) guidance,<sup>3</sup> if EPA determines that differences in the remedial action significantly change but do not fundamentally alter the remedy selected in the Record of Decision (ROD) signed on January 16, 1987 with regard to scope, performance, or cost, EPA shall publish an explanation of the significant differences (ESD) between the remedial action being undertaken and the remedial action set forth in the ROD as well as the reasons such changes are being made.

**D. Summary of Circumstances Necessitating this Explanation of Significant Differences**

The extent of contamination, threat to human health and the environment, future land use at the Site, and the costs of remediation were evaluated in the design investigations conducted by the EPA and the NH Department of Environmental Services (NHDES). The evaluations took into account standards which must be

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<sup>1</sup>42 U.S.C. Section 9617(c).

<sup>2</sup>40 C.F.R. Section 300.435(c).

<sup>3</sup>Office of Solid Waste and Emergency Response {OSWER} Directive 9355.3-02.

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achieved when conducting CERCLA response actions and addressing public health risks. This evaluation used data which were not available when the ROD was signed. This ESD is for Operable Unit 4 (OU 4) only and addresses the Kingston Steel Drum (KSD) Source Control and sediment removal part of the Selected Remedy in the ROD.

### **E. Availability of Documents**

This ESD and supporting documentation shall become part of the Administrative Record for the Site. The ESD, supporting documentation for the ESD, and the Administrative Record are available to the public at the EPA Records Center and at the Kingston Town Hall.

|                                                                                                                   |                   |                                         |
|-------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------|
| US Environmental Protection Agency<br>Records Center<br>One Congress Street<br>Boston, MA 02114<br>(617) 918-1440 | Hours: M-F<br>and | 10:00 am - 1:00 pm<br>2:00 pm - 5:00 pm |
|-------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------|

|                                                                               |                             |                                         |
|-------------------------------------------------------------------------------|-----------------------------|-----------------------------------------|
| Kingston Town Hall<br>163 Main Street<br>Kingston, NH 03848<br>(603) 642-3112 | Hours: M, T, Th, F<br>and W | 9:00 am - 4:00 pm<br>9:00 am - 12:00 pm |
|-------------------------------------------------------------------------------|-----------------------------|-----------------------------------------|

## **II. Summary of Site History, Contamination Problems, and Selected Remedy**

### **A. Site History and Contamination Problems**

The Ottati & Goss/Kingston Steel Drum Site (Site) is located in rural southern New Hampshire, approximately three miles south of the town of Kingston, along both sides of State Highway 125. The Site was placed on the NPL in September 1981. The Site is defined in the ROD as a 35 acre parcel west of Rt. 125 consisting of two distinct tracts: (1) the "Senter area" (28 acres owned at times by the Senter Transportation Company), and; (2) the "KSD area" (5.88 acres owned by Great Lakes Container Corporation (GLCC)). (This parcel is also identified in some documents as the GLCC area.) A one (1) acre parcel known as the "O&G area", is located in the western portion of the Senter area. The Site is bounded to the north and south by two streams which flow to the east: North Brook and South Brook. These streams discharge east of Rt. 125 into a wetland and thereafter into Country Pond, located approximately 1300 feet east of Rt. 125. The wetland is somewhat triangular in shape and wooded, with an area of approximately 60 acres. This ESD addresses remediation of the soils and sediments that are located in the KSD area, South Brook and the wetland area of the Site and will complete the Source Control portion of the remedy in the ROD. See Figure 1 for a general Site description and location map.

From the late 1950's until operations ceased in July 1980, portions of the Site were used for drum reconditioning operations and the disposal of hazardous waste materials. Drum washing wastes were initially disposed of in a dry well and later in open, unlined

lagoons located in the KSD area. From 1978 to 1979 a hazardous materials processing and storage facility operated in the O&G area. Operations from all areas resulted in the contamination of groundwater, surface water, soil, brook and wetland sediment. A building located in the KSD area was also contaminated by Site operations.

EPA conducted an emergency cleanup from 1980 to 1982 to remove immediate threats to human health and the environment. This involved the removal of about 4,000 drums of hazardous waste from the O&G area.

Between 1983 and 1985 International Minerals Chemical Corporation (IMC), a former owner of the KSD area, performed drum excavation, trenching and removal operations, debris removal, soil aeration and soil stockpiling operations at the KSD area. By June 1985 all stockpiled soils and debris were removed from the KSD area by IMC.

The Remedial Investigation (RI) and Feasibility Study (FS) was completed in 1986. After a public comment period a ROD, describing the selected remedy, was issued on January 16, 1987.

Pursuant to a Consent Decree entered on November 13, 1987, three potentially responsible parties (the General Electric Company, Solvents Recovery Service of New England, Inc., and Lilly Industrial Coatings, Inc.) performed response activities at the Site. Specifically, they conducted on-Site low temperature thermal desorption for soils in the O&G area. Approximately 4,700 cubic yards (cy) of soils contaminated with volatile organic compounds (VOCs) were treated. This work was identified as OU 1.

EPA began the fund lead cleanup of the groundwater and soils for the site in 1991 after a series of court rulings.<sup>4</sup> The remedial design for groundwater in the KSD area was designated OU 2. The remedial design for ground water in the O and G area was designated OU 3. These two operable units were combined into OU 3 when it was realized that the groundwater remedy would need to be integrated as one remedy. OU 4 was designated as remedial design for soils in the KSD area and for building demolition.

Pursuant to a Consent Decree entered on December 22, 1993 (modified by the Court on July 19, 1994), all claims which the United States had for injunctive relief (response activities) and costs (past and future) against the potentially responsible parties at the Site were resolved, with few exceptions.

In 1993 EPA and the NHDES began the response activities for OU 4. The former drum-cleaning building (approximately 40,000 square feet) in the KSD area was decontaminated and demolished. The debris was properly disposed of off-Site. In

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<sup>4</sup>U.S. v. Ottati & Goss, Inc., 630 F. Supp. 136 (D.N.H. 1985);  
U.S. v. Ottati & Goss, 694 F. Supp. 977 (D.N.H. 1985);  
U.S. v. Ottati & Goss, Inc., 900 F. 2d 429 (1<sup>st</sup> Cir.1990)

addition, buried debris and underground tanks were removed, cleaned and disposed of off-Site. A temporary cap was placed over the former building area and the remaining area was graded and seeded. This portion of OU 4 related to the building demolition was completed in 1994.

In 1996 EPA completed the design of the groundwater pump and treat system, for remediation of the contaminated ground water at the Site (OU 3). The implementation of this design was put on hold pending review of the groundwater remedy. Modeling data indicate that attenuation of contamination in the groundwater may occur rapidly (in less than 10 years) once the source control (in particular, the KSD soils portion of OU 4) remedy is implemented. Historical trends in groundwater concentrations down gradient of the O & G area but up gradient of the KSD area show reductions of concentrations of one and two orders of magnitude and in some wells are now below Maximum Concentration Levels (MCLs) which are federal drinking water standards. Historical trends in the KSD and wetland area are downward but not comparable to the O & G area because the existing sources of VOCs in soils are contributing to the ground water contamination. The soils remedy for OU 4 is expected to begin in late 1999 and be completed in mid 2001. EPA will study the attenuation potential for two years after the soils are remediated before making a decision in 2003 to implement OU 3, groundwater remediation. The study will include ground water monitoring and additional modeling to predict when the groundwater will meet protective goals and standards. Based on the study, a decision will be made as to whether to implement an active groundwater remedy or pursue a ROD Amendment which would change the remedy to monitored natural attenuation. A ROD Amendment would include public and State of New Hampshire coordination.

## **B. Summary of the Selected Remedy**

The ROD selected a remedy which addressed source control, management of migration, long term surface and groundwater monitoring and building demolition. The source control (removal of contaminated soils) remedy in the ROD involves excavation of approximately 19,000 cy of contaminated soil and treating these soils on-Site using thermal removal/destruction technologies. According to the ROD, soils with PCB levels above 20 ppm are to be incinerated (available data at the time of the ROD estimated this to be 5,000 cy). Figure 2 (based on Figure 6 from ROD) delineates portions of the KSD area to be remediated as identified in the ROD. Soil with less than 20 ppm of PCBs but with concentrations of total VOCs above 1ppm are to be treated by an aeration process which will reduce the VOCs to acceptable levels. This volume is estimated to be 14,000 cy. There is no volume estimate for sediment removal but the area detailed for removal in the ROD is just up gradient and down gradient of the culvert under Rt. 125 for South Brook. The area is not large, about 3500 square feet. The remediation clean up levels for PCBs are 20 ppm for soils and 1 ppm for sediment. The ROD also acknowledges that changes to the remedy might occur as a result of further investigations during design.

The portion of the ROD involving management of migration includes the removal/extraction of contaminated groundwater from several locations, on-Site treatment, and discharge back into the ground. Extraction of groundwater will be from the following areas: (1) contaminant source areas in the O&G and Senter areas of the Site; (2) along Route 125; (3) the wetland area down gradient of the KSD area, and; (4) from the deep bedrock well R-4 near the border of the Senter area and Route 125. Treatment components will be decided upon during design. Discharge is primarily to the ground with the provision for discharge to surface water if necessary.

Long term monitoring is to be performed during and after completion of the active pump and treatment remedy described above. The monitoring includes groundwater on- and off-Site including residential wells, surface water in the two brooks, the wetland area, and in Country Pond.

As part of the OU 1 remediation the operations building, underground tanks and miscellaneous building debris were decontaminated, demolished/removed and disposed of at an approved off-Site facility. Buried drums were dug up, decontaminated and disposed of at an approved off-Site facility. Various types of debris, equipment, and other material located in the building, and around the Site were decontaminated and disposed of off-Site.

As described in Section II.A., many of the activities called for in the ROD have been performed at the Site already.

### **III. Basis for the Document**

Since the ROD was issued, EPA has gathered additional information about the Site both during design activities and in the course of conducting response activities at the Site.

First, design activities for the remedy described in the ROD have included investigations that better identified the extent of contamination in the KSD portion of the Site and in the wetland between Country Pond and Route 125. The ROD identified a very small area to be remediated in South Brook and did not identify any contamination in the wetland or under and around the operations building at the KSD area. Subsequent investigations have further delineated the extent of contamination in the wetland, as well as under and behind the former operations building in the KSD area. This additional information indicates that there should be an increase in volume and area of remediation in the KSD and wetland areas of the Site. These increases in volume and area will result in increased costs of remediation.

Second, additional information to support an ecological risk assessment has become available and EPA performed an ecological risk assessment using updated risk assessment techniques. The new risk assessment indicates that the cleanup level for sediment should be increased.

Third, a design evaluation for cost effectiveness was performed. This evaluation shows that a variation of the thermal treatment remedy selected in the ROD is more appropriate for the Site. The design evaluation shows that on-Site thermal desorption of soils and suitable sediment material followed by off-Site incineration of the hazardous waste will be more cost effective than the on-Site incineration which is called for in the ROD.

Finally, the change in future use scenario (from residential to commercial) indicates that use restrictions (institutional controls) need to be placed on the KSD area of the Site. The owner of the KSD area, Great Lakes Container Corporation, is a dissolved corporation. The change in future land use will not result in a change in the original clean up level 20 ppm for PCBs due to new risk assessment approaches adopted by EPA since the ROD.

The main documents available in the Administrative Record supporting these changes include the Draft Ecological Risk Assessment and Final Technical Memorandum, Baseline Wetland Floristic Survey, Risk Reduction Memo for Ecological Risk, Report on Remedial Alternatives and Screening Analysis, GLCC Soils and Sediment Report, Wetland Sediment PCB Evaluation, Phase 1 and 2 Sediment Sampling Data Evaluation Report, and the Final Draft GLCC Building Demolition Report. There are also memoranda and letters from various government agencies which provide information and statements for the record concerning the current and future use of the site.

#### **IV. Description of Significant Differences**

Since the issuance of the ROD and the entry of the 1993 Consent Decree, extensive design investigations have been conducted by EPA for both OU 3 and OU 4. The results indicated the need for modifications to several components of the remedy. As stated above this ESD is only addressing issues related to soils in OU-4. The significant differences between the remedy as presented in the ROD and the action now being proposed are described below.

##### **A. Change in Volume of Soils to be Remediated**

###### Original Remedy

The ROD required excavation and incineration of soils in the KSD and O&G areas contaminated with PCBs, and established a clean up level of 20 ppm. The estimated volume of soil to be incinerated in the ROD was 5,000 cy. The soil incineration estimate in the ROD was based on the RI/FS and it was expected that volume changes might occur based on better information. The ROD also included 14,000 cy of material contaminated with VOCs to be remediated using thermal aeration, thus the ROD was based on remediating 19,000 cy of soils. Additionally, the ROD did not indicate that contamination under and behind the building in the KSD area was present and would be remediated. The capital cost estimate for 19,000 cy of soil remediation under the original remedy is \$ 6,030,000 .

## Modified Remedy

Soil remediation of 4700 cy in the O&G area and removal of the building in the KSD area has already been completed. The removal of the building and underground tanks located under the building in the KSD area has revealed additional soil material contaminated by past operations. The design investigation has found that contamination in fill material located under and behind the building needs to be excavated and treated. The total volume of soils presently estimated for remediation in the KSD portion of the site is 14,000 cy. Of this total, 7,650 cy has PCB / VOC contamination and 6,350 cy has only VOC contamination. The table in the Section below shows the changes in volumes. The cost of soil remediation (not including the wetland remediation of 10,000 cy of sediment) under the modified remedy is approximately \$9.5 million. See Figure 3 for the areas to be remediated in the KSD area of the Site.

### **Change in Volume of Sediments to be Remediated**

#### Original Remedy

The ROD identified two small areas at the entrance and exit of the culvert for South Brook at Route 125 where sediment would be excavated to a clean up level of 1ppm PCBs. The ROD did not provide estimates of volume but the area identified on Figure 2 is about 3500 square feet. The material was proposed to have been included with material to be incinerated if suitable. There was no cost for sediment remediation under the original remedy as it was considered insignificant.

#### Modified Remedy

The design studies, using better sampling and analytical techniques than those used during the RI/FS for the Site, have found PCB contaminated sediment in the wetland over a widespread area. The concentrations of PCBs decrease as distance from the culvert exit increases.

A site specific Ecological Assessment (EA) in cooperation with the US Fish and Wildlife Service (USFWS) was performed following the RI/FS because the ecological risk assessment in the RI/FS proved insufficient for designing a cost effective remediation. The EA used deterministic and probabilistic methods for modeling ecological risks, and spatially weighted average total PCB concentrations in the marsh to estimate residual risks from contamination that might remain after focused remediation. Species specific, PCB risk reduction curves for alternative total PCB clean up goals of 1 or 10 mg/kg were used to draw conclusions. The EA concluded that 70% of the total PCBs sediment risk could be eliminated (resulting in a hazard quotient of < 1.5 throughout the 60 acre marsh) if brook and wetland sediments exceeding 10 mg/kg in a five acre area were remediated. See Figure 3 for the area to be remediated in the wetland.

The sediment will be removed using excavation or other extraction techniques and transported to the KSD area of the Site for treatment. Material suitable for thermal desorption will be treated and included with soil from the KSD portion of the Site. Material unsuitable for treatment on-Site will be transported to a suitable disposal facility. The treated material will be kept as fill on the KSD portion of the Site. The impacted wetland will be restored in kind, to re-establish the red maple wetland. Regrowth of a mature red maple forested wetland in cleared areas will take several decades. The cleanup level of 1ppm total PCBs will still apply for the section of South Brook that is at the entrance to the culvert. The cost of sediment remediation under the modified remedy is estimated to be \$2.5 million.

|            | Estimated Volumes of Soil to be Remediated<br>(In cubic yards) |                      |             |
|------------|----------------------------------------------------------------|----------------------|-------------|
|            | ROD Estimate<br>1987                                           | ESD Estimate<br>1999 | Difference  |
| PCB Soils  | 5000                                                           | 7650                 | 2650 more   |
| VOC Soils  | 9300*                                                          | 6350                 | 3000 less   |
| Sediments  | < 100                                                          | 10,000               | 10,000 more |
| O & G area | 4700                                                           | N/A                  | N/A         |
| Total      | 19,000                                                         | 24,000               | 5000 more   |

\* Does not include 4700 cy at the O & G area remediated in 1988

### **B. Change in Remediation Technology**

#### Original Remedy

The ROD requires use of thermal treatment (specifically, on-site incineration) for contaminated soils and sediments. At the time of the ROD in 1987 incineration was one of a few technologies available to choose from for remediation of PCB contaminated soils. The cost of soil and sediment remediation under the original remedy is \$ 6,030,000.

#### Modified Remedy

The modified remedy will also use thermal treatment: on-Site thermal desorption (a new technology which was fully developed after the ROD was issued), followed by off-Site incineration of hazardous waste removed from the soil and sediment. The change to thermal desorption will also mean a different RCRA regulation will be appropriate for regulation of the air discharges from the treatment unit. 40 CFR Part 265, Subpart O regulations contain requirements for operating a hazardous waste incinerator. The change to thermal desorption changes the applicable RCRA regulation to 40 CFR

Section 265, Subpart P. These regulations contain requirements for air pollutant emissions from thermal units. The cost of soil and sediment remediation under the modified remedy is \$12 million. The cost of treatment for the modified remedy using incineration is \$13.3 million. The change in technology results in a savings of \$1.3 million.

## **Change in Implementation of Institutional Controls**

### Original Remedy

The original remedy did not call for the use of institutional controls. Therefore, there were no costs associated with the implementation of institutional controls.

### Modified Remedy

The modified remedy is based on a change in future land use from residential to commercial. A commercial future use assumption can be made here given the past use of the site and its location on a major state highway. A re-evaluation of the protectiveness of the existing cleanup level, 20 ppm PCBs in soils, shows that it remains protective of a future commercial use. The excess cancer risk is estimated as  $1.5 \times 10^{-5}$  and the non-cancer hazard index is estimated as a Hazard Quotient of 1.1. These risks are within the Agency's acceptable risk range. If the site remained a residential scenario as the future use, the clean up level in soils would have been reduced to 3 ppm to meet the Agency's acceptable risk range. This change would have increased the cost by about \$4.5 million. There are two areas where contamination and debris have been found adjacent to the property line. Both are included in the remediation. The clean up level for these areas will be 3 ppm PCBs in soil since the areas are residential and the institutional controls will not be placed on the adjacent properties.

The portion of the Site where contaminated soil is being remediated (the GLCC property) will be restricted to allow only commercial use with no residential or day care use. Ordinarily, this is accomplished with the filing of an easement by the Site owner with the Recorder's Office or Registry of Deeds or other appropriate official. The easement (1) grants a right of access for the purpose of conducting any activity related to the ROD and (2) grants the right to enforce restrictions which EPA determines are necessary to ensure non-interference with, or ensure the protectiveness of the remedial measures described in the ROD. These rights are granted to one or more of the following, as determined by EPA: (1) the United States, on behalf of EPA, and its representatives; (2) the State and its representatives, or; (3) other appropriate grantees.

The KSD area is currently owned by GLCC. GLCC, a Michigan corporation, was dissolved in 1991. Thus, no owner of record is available to implement institutional controls at the KSD area. Another person or entity will need to acquire the property currently owned by GLCC in order to implement institutional controls. The State of New Hampshire has indicated that it is will willing to take title to the property using its

eminent domain procedures and restrict the property to commercial use.<sup>5</sup> If the State of New Hampshire fails to acquire the Site, EPA anticipates acquiring the Site. Some administrative and acquisition costs will be incurred to implement this component of the remedy.

#### **D. Summary of Costs**

The original remedy for soils remediation had an estimated capital cost of \$ 6,030,000 for the Source Control Alternative which included soil aeration and incineration of 19,000 cy. In 1998 dollars this cost is about \$ 9,235,000. Some soils remediation at the O & G portion of the site has been performed by the PRPs in 1988-9. The work on the KSD portion of the site and the modified wetland/marsh area remains to be done. The cost of this work is estimated to be \$12,000,000. The total volume of soils to be remediated for PCB contamination in the KSD portion of the site is about the same, 7650 cy currently versus 5,000 cy in the ROD. The VOC soils in the KSD portion of the site is currently estimated to be 6,360 cy for a combined total of 14,000 cy. There is an increase in the volume of sediment from 3500 square feet to about 5 acres, about 10,000 cy. This accounts for about \$ 2,500,000 of the increase in cost. It is difficult to equate the cost estimate of the ROD( based on a total of 19,000 cy) with the present estimate of work to be done (based on 24,000 cy) because of the above differences. The increase in volume can be attributed to changes in areas of known contamination and additions of areas of contamination that were unknown at the time of the ROD. The increase in costs can be attributed to increases in construction cost (inflation) and the increase in total volume to be remediated.

#### **V. Supporting Agency Comments and Community Acceptance**

EPA and the NHDES have met with the Board of Selectmen and other Town of Kingston government bodies during the design to coordinate issues and planning for the site remediation. Three areas of concern are the wetland work, the impact of the remediation on Rt. 125 traffic and the future use of the site. The design will incorporate traffic controls to minimize the impact and maximize the safety of the heavily used highway. The future use of the site was the subject of several meetings during which the Board of Selectmen and the Town stated their support for the taking of the GLCC property through eminent domain by the State of New Hampshire.

An informational public meeting was held by EPA at the Town Hall in Kingston on September 9, 1999 to inform the public of the ESD. A public notice of the meeting was placed in a local paper on August 17, 1999. Press releases were made to the print and broadcast media to notify the public of the informational meeting. A Fact Sheet was

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<sup>5</sup>It should be noted that the State of New Hampshire has begun eminent domain proceedings. On March 24, 1999, a public meeting was held in Kingston, New Hampshire, as part of the process. There was no opposition to the taking of the property by the State voiced in this meeting. The Town of Kingston has provided a letter to the State of New Hampshire indicating that it has no objection to the eminent domain proceeding.

distributed to known interested parties several weeks before the meeting. Comments were accepted from August 17 to September 16. The public meeting was attended by about 25 people. The major concerns expressed by the public were traffic impact of construction vehicles on Rte 125 during the remediation, water quality impacts of the remediation on Country Pond, cost to the taxpayer, and effect of remediation activities on the groundwater levels which could impact individual homeowner's drinking water supply wells. Individual comments are summarized in the Responsiveness Summary attached to this document.

The EPA and the NHDES agree that continued cooperation and communication with the Town and local agencies are important during the Remedial Action. The traffic issue has been and will continue to be coordinated with the Kingston Police Department. The remedial work plan will include provision for monitoring the surface water during the remedial activities to insure the water quality of Country Pond will not be impacted. The cost of past and present work for this Site reflect the extent and complexity of the contamination that is at the Site. The agencies have been aware of the nearby wells that have the aquifer as a drinking water source. The agencies believe that the topographic location of the site in relationship to the wells is such that the individual wells will not be affected, however, the site activities and wells will be monitored to address this issue. There were no objections to the changes in the remedy proposed in this document.

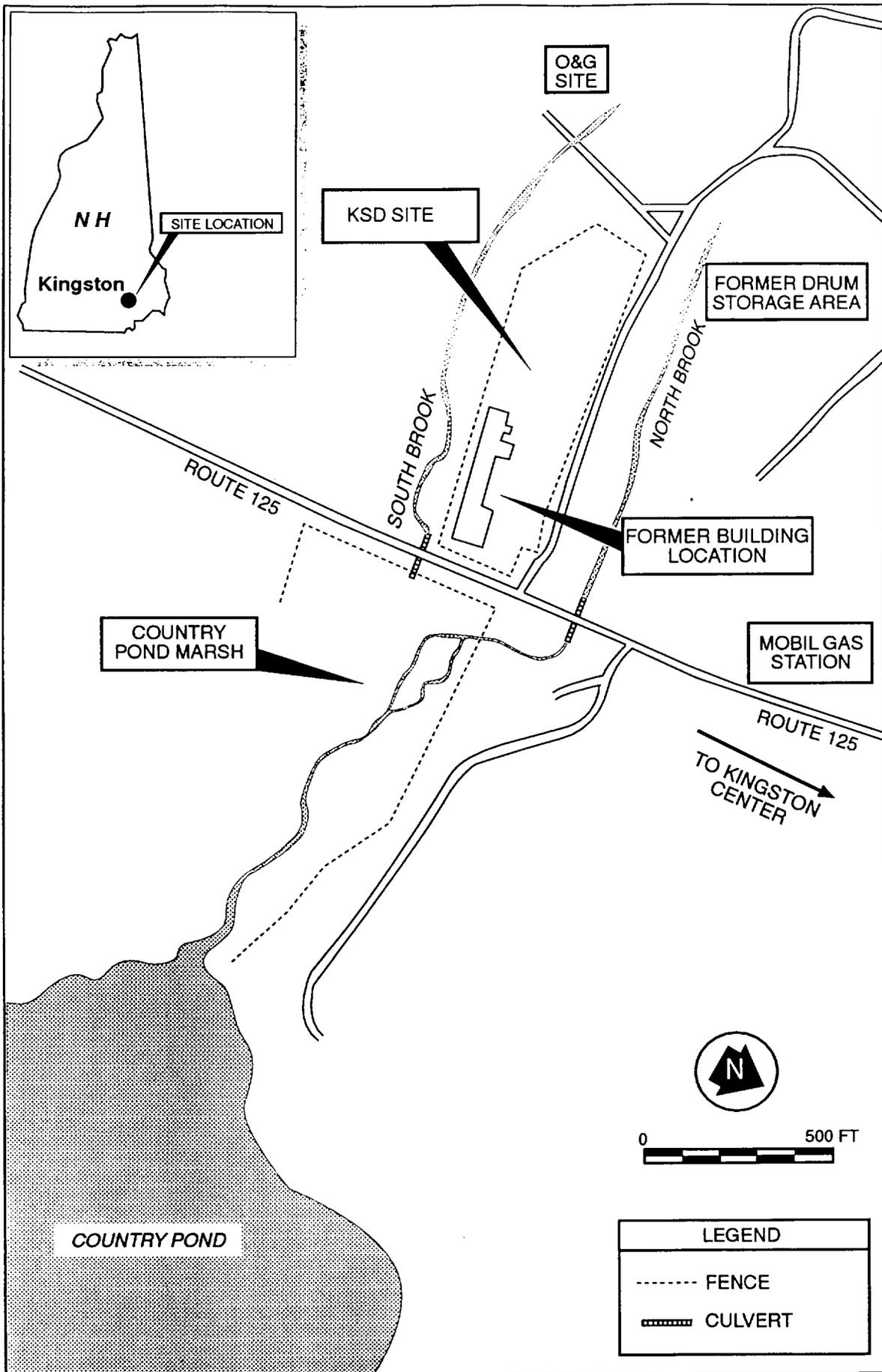
The NH Department of Environmental Services has determined that the ESD and proposed changes are acceptable.

## **VI. Statutory Determination**

Considering the new information that has been developed and the changes that have been made to the selected remedy, EPA and NHDES believe that the remedy remains protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to this remedial action, and is cost-effective. In addition, the revised remedy utilizes a permanent solution to the maximum extent practicable for this Site.

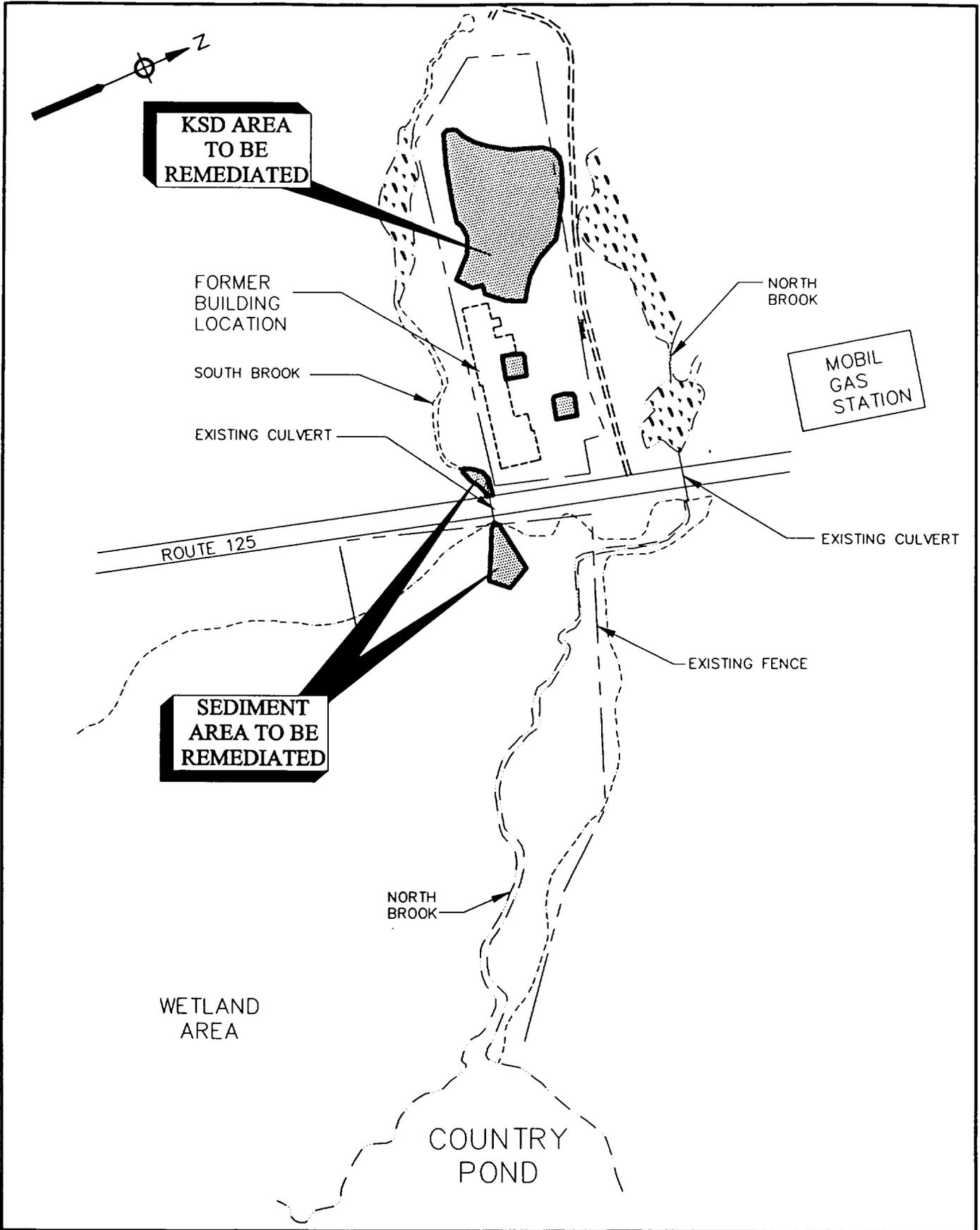
## **VII. Administrative Record**

The Administrative Record, containing information supporting this ESD, is available for public review at the locations and times listed in Section I above.



**FIGURE 1. GENERAL SITE MAP - OTTATI AND GOSS/  
KINGSTON STEEL DRUM SUPERFUND SITE, KINGSTON,  
NEW HAMPSHIRE**

01/6482



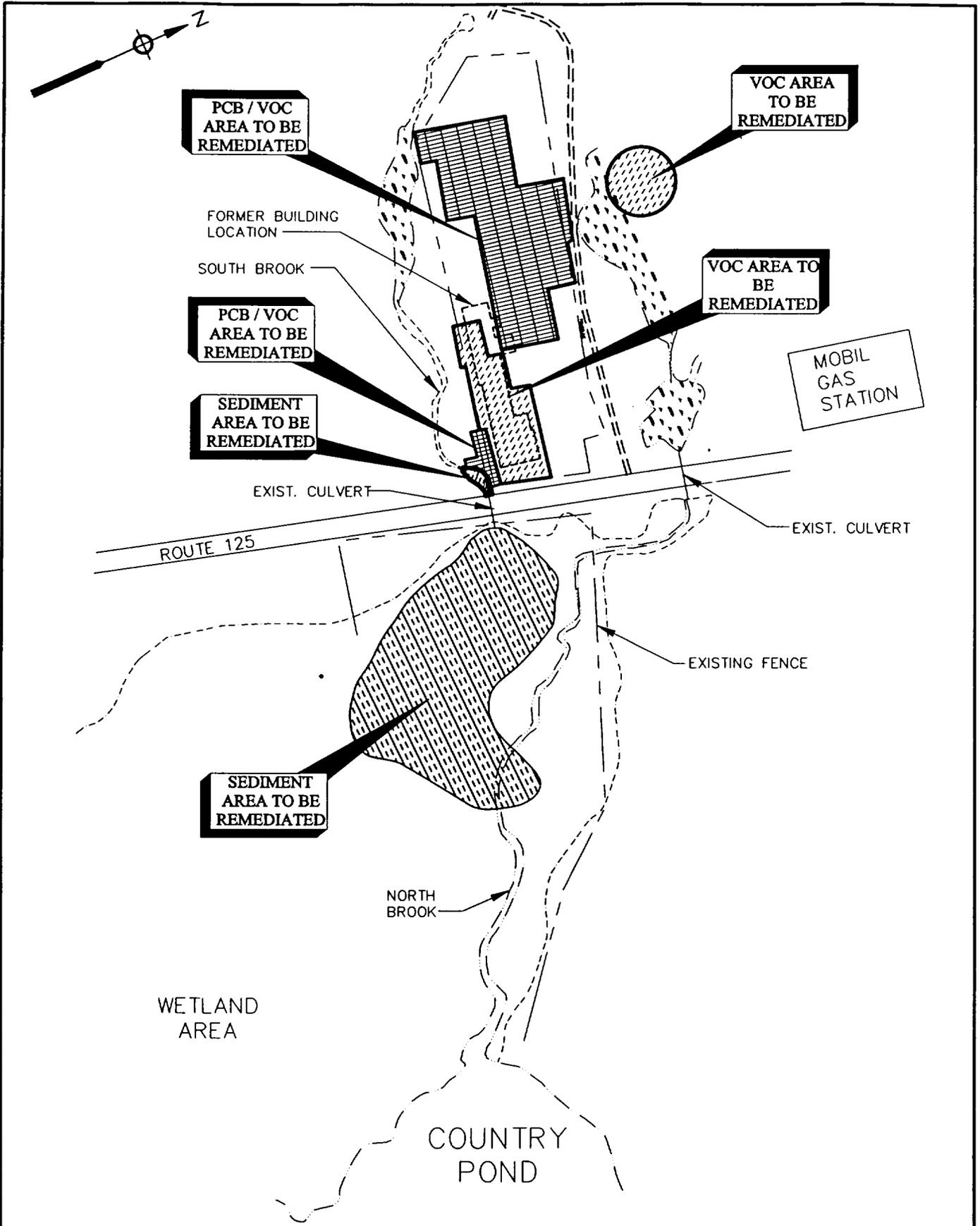
METCALF & EDDY

OTTATI & GOSS / KINGSTON STEEL DRUM  
 SUPERFUND SITE KINGSTON, NH  
 SELECTED REMEDY  
 1987 RECORD OF DECISION

SCALE: NONE

AUGUST, 1999

FIGURE 2



METCALF & EDDY

OTTATI & GOSS / KINGSTON STEEL DRUM  
 SUPERFUND SITE KINGSTON, NH  
 MODIFIED REMEDY 1999  
 EXPLANATION OF SIGNIFICANT DIFFERENCES

SCALE: NONE

AUGUST, 1999

FIGURE 3

**Responsiveness Summary  
Ottati and Goss Public Meeting  
Kingston, New Hampshire  
September 9, 1999**

**QUESTIONS AND ANSWERS** - All questions were answered at the public meeting by Mr. Richard Goehlert of the Region I U.S. EPA. Additional response, explanation or information provided is included in italics for the applicable question. No written comments were provided at the public meeting or submitted during the comment period.

Question 1: What has been the cost to taxpayers thus far for the project?

Response 1: The estimated cost of the soils remediation is approximately \$12 million dollars.

Question 1a: I've heard that as much as \$20 million has been spent.

Response 1a: That may be true, however, not all of that represents costs to the taxpayer. Part of remediation was done by and paid for by the PRPs. In addition, due to the history of the site, most of the money has been for litigation in courts. The Federal government has not spent \$20 million, yet.

*The estimated Federal expenditures for the site as of January 31, 1999 is \$ 12,781,000. Costs recovered from settling parties is approximately \$4 million.*

Question 2: Will there be monitoring of the surface water quality downstream during excavation?

Response 2: The flow of the water downstream will be controlled through North and South Brooks, with the surface water flow possibly being diverted prior to excavation

*Surface water monitoring in South Brook, the wetland and Country Pond will be done to measure any impact of the remedial operations on surface water quality. Water quality parameters expected to be monitored include but are not limited to turbidity, pH, dissolved oxygen, temperature and VOCs. U.S. EPA expects that engineering measures implemented during remediation will satisfactorily control the movement of contamination.*

Question 2a: The conservation commission is concerned about the water quality downstream because it is a drinking water supply for the town of Amesbury. Will the excavation have an impact on that drinking water supply? The water is currently being monitored for phosphorus, pH, algae, etc., will any additional monitoring be done during excavation due to municipal water supply for Amesbury?

Response 2a: During excavation engineering controls will be utilized to prevent soil contamination from getting into the pond. Currently groundwater traveling across the site, goes under Route 125 and into Country Pond Marsh. It might be feasible to do downstream monitoring or sampling of the surface water in the pond during excavation.

*See the response to Question 2, above.*

Question 3: Where the groundwater and surface water meets County Pond, are there wells being monitored? Are these wells being sampled for PCBs?

Response 3: Ten onsite wells were sampled for PCBs during the last groundwater event at the request of the NHDES. The wells sampled were mostly on the KSD portion of the site and included several wells just east of Route 125. PCBs from the site are present in soils and are hydrophobic and do not readily migrate [in water]. The analytical results are not available at this time.

*The analytical results of the groundwater sampling in the ten wells for PCBs were not available at the time of the public meeting and are still not available. However, the contamination in the groundwater (VOCs, or PCBs), should not cause any change in the remediation plan for the soils. The remediation of the soils will remove the contamination that is considered the source of the contamination in the groundwater.*

Question 4: Are the wells, which were installed by the USGS, being sampled? Are you aware of these wells and could they be sampled? Considering the extent of the aquifer (sand and gravel), we are concerned that contamination will reach the public water supply. Samples should be taken from them. A reference was made to USGS Open File Report 89-330 Geohydraulic, Ground-Water Quality, and Streamflow Data for the Stratified-Drift Aquifers in the Lower Merrimack and Coastal River Basins, Southeastern NH.

Response 4: Are these the wells in the woods on Sunshine Drive? If so, we will see if these wells are being sampled. There are not a lot of bedrock wells onsite that could be sampled. Currently, the local residences and the well at the Mobil Station are being sampled. Does the USGS currently sample these wells for hazardous constituents? (Questionee was not sure). U.S. EPA will work with USGS to sample the wells and get more information.

*The USGS report lists many wells installed by various parties near the site including wells that were installed during the RI/FS and wells installed in the Pond by USGS for the State of New Hampshire. Many of the wells listed are sampled on a regular (yearly) basis to monitor the movement of volatile organic contamination at the Site. Several of the wells in Country Pond have been destroyed by ice and boating actions. Currently only two of the USGS installed are able to be sampled.*

Question 5: Will the fence currently around the site, remain after the remediation is done? How long will the fence be there?

Response 5: The fence was erected by the PRPs and U.S. EPA would not take it down. U. S. EPA is in favor of keeping fence up for health and safety purposes.

*U.S. EPA does not intend to remove the fence during remediation except to perform the work, in which case the fence will be temporarily moved to insure security. The owner(s) of property where the Site is located will decide whether or not to remove the fence after all remediation (including groundwater) at the Site is completed.*

Question 6: What will be the actual impact of traffic on Route 125? Will traffic be diverted to local roads?

Response 6: No diversion of traffic is expected. Trucks will not bring sediments across Route 125 during high travel times. It is planned that trucks be brought across Route 125 in batches (i.e. two or three each hour, not one every 5 minutes).

Question 7: Could you clarify what impact the thermal desorption plant will have on the local water supply? Where will the additional water come from for the cooling of the soils? How much water will be needed?

Response 7: Removing water from the soils is a very expensive part of the process and uses the most energy in treating the soils. After the soil is treated water is needed to cool the soils. The source of that water can come from the thermal desorption process itself or from another source. There is an existing well on the Ottati & Goss portion of the property which could be used as a supply well. It is also possible that water could be obtained from the dewatering process from the excavation which could be used for cooling.

*The thermal desorption process should not affect the local water supply. During excavation to remove the contaminated soils on the KSD area of the site it may be necessary to control the groundwater level. The removal of the groundwater at the points of excavation would be the only activity that might affect the nearby residential shallow wells in the overburden (i.e. dug wells). It is not expected that any bedrock wells (which are also used for local drinking water supply) would be affected. However the operations will include provision for monitoring water levels. The amount of water needed for cooling the soils is dependent on several factors, such as soil moisture before treatment and the treatment temperature for the soils. When operations are underway, ground water levels will be monitored to assess the impact on ground water wells.*

Question 7a: How much extra water [can be obtained from excavations]?

Response 7a: It depends on size of excavation, cannot give definite answer.

*The amount of water needed to be removed from an excavation will depend on such factors as the level of the groundwater at the time of excavation, the size of the excavation, and the amount of rain during operations.*

Question 7b: How much water, how many gallons will the thermal desorption plant use each day? Will it have an impact on the wells on the surrounding properties?

Response 7b: The levels of the water in the wells from the surrounding properties should not be affected by this process but U.S. EPA and the NHDES are aware that owners of nearby wells are concerned about their water supply.

*During remediation water levels will be monitored to assess the operations impact. See additional response above to question 7.*

Question 8: How deep will you excavate in KSD area?

Response 8: The excavation will likely be to a maximum of twelve feet, but will average approximately six feet. The actual excavation will be larger than that depicted on the third poster presented.

*The selected contractor will submit an excavation plan as part of their proposal. The contractor may choose to accomplish the excavation in a manner that will treat all material in an area or segregate clean material from contaminated material and treat only contaminated material. The contractor's plan may thus result in excavating an area larger than indicated in the ESD. The contractor's decision on methodology will most likely be based on cost, and is subject to the approval of U.S. EPA.*

Question 8a: Will excavated soils be segregated?

Response 8a: Yes, but it is an economic issue and depends on the contractor selected.

*The remediation at the site is difficult from a materials handling point of view because of limited site area. U.S. EPA expects to use additional area on adjacent property temporarily during remediation to ease the materials handling problem. Soils that are treated will be segregated from contaminated soils.*

Question 9: When will the specifics of wetland restoration plan be addressed?

Response 9: The wetland restoration plan will be prepared by the U.S. Army Corps of Engineers, the NHDES, the U.S. Fish & Wildlife Services, and U.S. EPA. Most of the area will be clear-cut, roads will be built, material will be removed, and peat or other material will be brought in for restoration. Efforts will be made to save some of the stumps. It is anticipated that the habitat will not be left as an open water habitat, but restored to a red maple swamp.

*When a proposed wetland restoration plan is prepared, coordination with the Kingston Conservation Commission will be done to address their concern for information. It is expected that this will be done during late fall of 1999. The agencies realize that the Conservation Commission is the focus for responsibility of the Town's environmental resources.*

Question 9a: What erosion controls will be utilized after excavation?

Response 9a: Erosion controls into the swamp may be necessary for the water coming from or near the culvert.

*The erosion of material in the wetland remediation area is a concern where the ground is higher than the wetland such as areas near the existing highway and where a new access road will be constructed down to the wetland. In the wetland itself the concern is one of sediment control. That is, movement of sediment and other material from the areas excavated to areas that do not need to be remediated. Anticipated controls include segregating the wetland into small areas with barriers that will control sediment movement and distribution. Erosion control at the KSD area of the site and adjacent to the new access road will include hay bales or other suitable control measures. An excavation and sediment control plan will be required as part of the contractor's submittal for approval before work will begin.*