



New York State Department of Environmental Conservation

O. KING

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MEMORANDUM

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TO: Distribution
FROM: Craig D. Jackson, BWRA, Division of Environmental Remediation
SUBJECT: Modified Love Canal Decree

AS

DATE: April 11, 1997

Attached for your information and file is an executed copy of the second modification to the September 1990 Love Canal Partial Consent Decree. This modification was signed by Judge Curtin in January 1997.

Briefly, this modification provided for thermal treatment in commercially available hazardous waste incinerators, and/or land filling as appropriate, of remedial wastes from Love Canal that have been stored at OCC's Main Plant. The modification was prepared with full EPA/DOJ involvement and with DOL and DEC representing the State.

Distribution:

C. Sullivan
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STATE OF NEW YORK
OFFICE OF THE ATTORNEY GENERAL

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Attorney General

PAMELA JONES HARBOUR
Deputy Attorney General

(212) 416-8465

TRANSMITTAL

To: Craig Jackson
Gerry Rider

Date: February 12, 1997

From: Gene Martin-Leff

Re: Love Canal

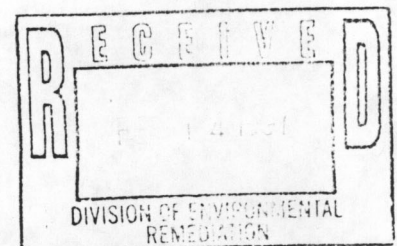
We are sending you herewith:

Modification of Decree, as signed by Judge Curtin

Remarks or comments:

The revisions are now final. It was good to work with you on this.

h:\transmit.cj



UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF NEW YORK

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U.S. DISTRICT COURT
W.D.N.Y. - BUFFALO

UNITED STATES OF AMERICA,
THE STATE OF NEW YORK,
UDC-LOVE CANAL, INC.,

Plaintiffs,

v.

OCCIDENTAL CHEMICAL CORPORATION,
CITY OF NIAGARA FALLS, NEW YORK,
and BOARD OF EDUCATION OF THE
CITY OF NIAGARA FALLS
(Love Canal Landfill),

Defendants.

Civil Action No. 79-990C

SECOND MODIFICATION OF PARTIAL CONSENT DECREE ON REMEDIATION
BETWEEN UNITED STATES, STATE OF NEW YORK
AND OCCIDENTAL CHEMICAL CORPORATION

I. Preliminary Statement

1. This Second Modification of Partial Consent Decree on Remediation between United States, State of New York and Occidental Chemical Corporation is lodged pursuant to Paragraph 89 of the Partial Consent Decree.
2. On September 20, 1989, the Court entered the Partial Consent Decree (LCPCD or Partial Decree) between plaintiffs United States of America and State of New York and defendant Occidental Chemical Corporation (OCC) (collectively, the Settling Parties) in the above-referenced action concerning the Love Canal Landfill (the Site).
3. The Partial Decree reflected the modification through an Explanation of Significant Differences (ESD) of the terms of the Record of Decision (ROD) relating to the Site, issued by the

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United States Environmental Protection Agency (EPA) on October 26, 1987 and made the ROD, as modified, enforceable pursuant to the Partial Decree.

4. The ROD, at pp. 26-27, ultimately selected a remedial action alternative requiring the thermal treatment of all wastes generated during remediation of the sewers and creeks in the "Love Canal Area" (as this term was subsequently defined in the Partial Consent Decree).

5. As related in the ROD, at pp. 26-27, EPA had originally selected a remedial alternative which required thermal treatment only for remedial wastes that were determined by testing to contain 2,3,7,8-tetrachlorodibenzo-p-dioxin (dioxin) at levels above one part per billion (1 ppb). Remedial wastes that did not contain dioxin at levels above 1 ppb would have been land disposed. Subsequently, EPA promulgated regulations which, inter alia, have adopted the 1 ppb level for dioxin as the action level that would require treatment of remedial wastes prior to land disposal of such wastes. 40 C.F.R. § 268.40.

6. The ROD, at pp. 18-19, determined, however, that the segregation of wastes above and below the proposed 1 ppb action level for dioxin would not be readily implementable and would unduly delay the remediation of the creeks in the Love Canal Area.

7. Accordingly, the ROD concluded at pp. 24-27, based upon these implementation problems, as well as public concern that untreated wastes might be redispersed at the Site, that all "Love

Canal Remedial Wastes," as that term would be subsequently defined in the Partial Consent Decree, would require thermal treatment.

8. Pursuant to the terms of the Partial Consent Decree and an ESD published concurrently with the lodging of the Partial Consent Decree on June 1, 1989, the Love Canal Remedial Wastes, including creek sediments, have been transported by OCC to its main plant in Niagara Falls, New York and are currently being stored at that OCC plant.

9. EPA, concurrently with the lodging of the Second Modification of Partial Consent Decree on Remediation between United States, State of New York and Occidental Chemical Corporation has published or will cause to be published an Explanation of Significant Differences (1996 ESD) concerning the changes to the selected remedial alternative to be effectuated by the instant modification to the LCPCD.

10. The 1996 ESD explains that, in light of the completion of sediment removal from the creeks and the adoption by EPA of the 1 ppb action level for dioxin, the segregation of remedial wastes is now feasible, implementable, protective of human health and the environment, and cost-effective.

11. EPA has proposed regulations at 58 Federal Register 48091 (September 14, 1993) and 61 Federal Register 18780 (April 29, 1996), which, if ultimately promulgated, could, under certain circumstances, modify the standards for the treatment and land disposal of soils from the remediation of hazardous waste sites.

NOW THEREFORE, it is hereby ORDERED, ADJUDGED, AND DECREED that the Partial Decree shall be modified as follows (and as indicated in the revised text set forth as Attachment A, hereto) to allow for a determination, based upon further analysis of Love Canal Remedial Wastes, that some of these wastes may be segregated for disposal in facilities permitted, in accordance with requirements of all applicable federal and state law, for the disposal of hazardous wastes without prior thermal treatment:

II. Second Modification of Partial Decree

12. Page 15, Section III, paragraph 3.ee., the definition of "Remedial Actions," starting on the second line therein, shall be modified to include the underlined language below:

. . . as modified herein and by the 1996 Explanation of Significant Differences (1996 ESD) (Attachment A to this Second Modification to the Partial Consent Decree) which OCC commits to perform pursuant . . .

13. Page 16, Section IV. PURPOSE, Paragraph 5 shall be modified to add the following to the third line therein:

temporary storage and thermal destruction or disposal of Sewer and Creek sediments . . .

14. Page 16, Section IV. PURPOSE, Paragraph 5 shall be modified to add and delete, as indicated, the following in the ninth line therein:

destruction, ~~or~~ other permanent treatment or disposal of these materials, by ensuring

15. Page 17, Section V.A., Paragraph 6, starting at line 17 shall be modified to include the underlined language below:

and, where practicable, Large Debris, as, and if, necessary to meet all applicable treatment standards required by federal and State law for the land disposal

of such materials; (g) dispose of residues remaining after thermal destruction of such wastes, as well as any wastes that do not require treatment pursuant to federal and State requirements for the land disposal of wastes, in accordance with all applicable laws . . .

16. Page 18, Section V.A. Paragraph 7 shall be modified to delete the word "and" on line 6 thereof and to add the underlined language as follows:

. . . to Paragraph 16, and all Plans and Specifications approved by the Governments pursuant to this Decree, and any report filed pursuant to Paragraph 37, below, and approved by the Governments or the Court

17. Page 22, Section VI.A., Paragraph 22, second line, should be modified to add the underlined language below:

ROD, as modified by the 1996 ESD and this Decree, by implementing . . .

18. Page 37, Section VI.E., Paragraph 37.a, shall be modified to strike the following language on lines 3 and 4:

~~within 30 days of the fifth anniversary of the lodging of this Decree~~

and to insert the following underlined language, in its place:

by October 15, 1996, and annually thereafter, submit to . . .

19. Page 38, Section VI.E., Paragraph 37.a, shall be modified to add the following underlined language commencing on the fourth line of page 38:

thermal destruction of Love Canal Remedial Wastes, or the land disposal of such wastes without treatment to the extent allowed by federal and state law, at another facility or facilities.

20. Page 38, Section VI.E, Paragraph 37.b, commencing on the fifth line thereof, shall be modified to add the language underlined, below:

facility or operations, the analytical protocols and sampling plans (with appropriate statistical justification for the number and location of samples) to be utilized for purposes of determining compliance with land disposal requirements pursuant to Subtitle C of the Resource Conservation and Recovery Act and of determining any petition by OCC to EPA pursuant to 40 C.F.R. § 268.44 for a variance from such land disposal requirements with respect to certain Love Canal Remedial wastes, and the manner and schedule for implementing the method, and a detailed description of all other alternative . . .

21. Page 39, Section VI.E., Paragraph 37.c shall be modified as follows commencing on the fifth line of page 39:

government approvals necessary to destroy, ~~or~~ treat, or dispose of materials, or residues from the treatment of such materials, with physical and chemical . . .

22. Consistent with the above changes, the Certification provision contained on Pages 40-41, Section VI.F., Paragraphs 39.d and 39.e shall be construed to allow OCC to certify, as appropriate, to the land disposal of waste materials without treatment where such disposal is in accordance with federal and state regulations for the land disposal of waste materials.

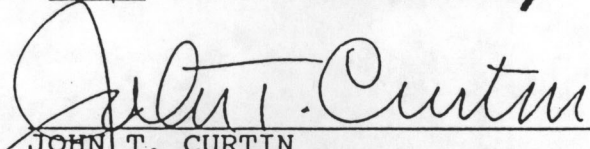
III. Publication of Notice of Lodging, Opportunity to Comment and Entry

23. This Modification shall be lodged with the Court for a period of 30 days for public notice and comment. The United States reserves the right to withdraw or withhold its consent if the comments regarding this Decree disclose facts or considerations which indicate that this Modification is

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inappropriate, improper, or inadequate. JANUARY
SO ORDERED THIS 14 DAY OF ~~October~~, 1997.

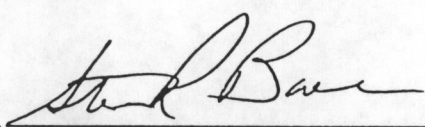


JOHN T. CURTIN
United States District Judge

The Parties herein, through their undersigned
representatives, who are authorized to enter into this Second
Modification of Partial Consent Decree on Remediation between
United States, State of New York and Occidental Chemical
Corporation, sign as follows:

FOR THE UNITED STATES OF AMERICA

LOIS J. SCHIFFER
Assistant Attorney General
Environment and Natural Resources
Division

Date: 8-29-96 By: 

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Senior Counsel
CHERYL L. SMOUT
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U.S. DISTRICT COURT
N.D. N.Y. - ALBANY

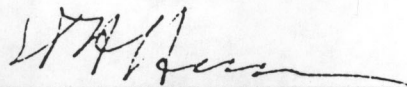
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PATRICK H. NeMOYER
United States Attorney

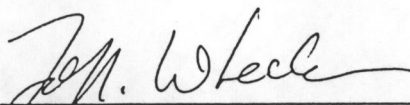
Date: 8-29-96 by: Martin J. Littlefield per SCB
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Assistant United States Attorney
Western District of New York
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11/5/96



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Date: *October 8, 1996*

By: *Eugene Martin-Leff*
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Dated:

August 8, 1996

By:

Steven K. Yablonski

STEVEN K. YABLONSKI

ANTHONY L. YOUNG

Attorneys for Defendant
Occidental Chemical Corporation

Attachment A-
Full Text of Modification

CHANGES TO LANGUAGE
LOVE CANAL PARTIAL CONSENT DECREE

1. Page 15, Section III, Paragraph 3. ee:

ee. "Remedial Actions" means those remedial measures authorized by the 1987 ROD, as modified herein, and by the 1996 Explanation of Significant Differences ("1996 ESD") (Attachment B to this Second Modification to the Partial Consent Decree) which OCC commits to perform pursuant to this Decree.

2. Pages 15 and 16, Section IV, PURPOSE, Paragraph 5:

5. The purpose of this Decree is to protect the public health, welfare, and the environment by providing for the temporary storage and thermal destruction ~~or disposal~~ of Sewer and Creek Sediments and certain other waste materials that have been or will be generated during remediation of the Love Canal Area, by providing a schedule and framework for OCC to assume responsibility for the removal of Love Canal Remedial Wastes from the Love Canal Site and for temporary storage and thermal destruction ~~or~~ other permanent treatment ~~or disposal~~ of these materials, by ensuring that the Work required by the Decree is performed in a timely and proper manner so as not to delay the present schedule for excavation of the creeks and the storage of creek sediments as adopted by NYSDEC, and by ensuring that the Governments are reimbursed for all costs incurred in connection with the activities carried out under, or with respect to, this Decree, as provided herein.

3. Page 17, Section V.A., Paragraph 6:

A. Commitment to Perform Remedial Actions

6. OCC shall perform the following Remedial Actions and related work: (a) receive or pick up, process, and, if necessary, temporarily store at the Love Canal Site, Sewer Sediments, Creek Sediments, and Large Debris; (b) pick up, and prepare for transportation to the OCC Plant Site, O&M Wastes and LTF Sludge; (c) diligently seek permits for a Centralized Storage Facility at the OCC Plant Site for storage of, among other things, Creek Sediments, Sewer Sediments, Large Debris, and O&M Wastes, and, if the permits are issued, operate the facility; (d) transport all Love Canal Remedial Wastes to the OCC Plant Site for temporary storage and thermal destruction or other permanent treatment; (e) diligently seek permits for an incinerator at the OCC Plant Site to thermally destroy, among other things, Sewer Sediments, Creek Sediments, and O&M Wastes and, if the permits are issued, construct and operate the incinerator; (f) thermally destroy Creek Sediments, Sewer Sediments, O&M Wastes, LTF Sludge and, where practicable, Large Debris, as, and if, necessary to meet all applicable treatment standards required by federal and State law for the land disposal of such materials; (g) dispose of residues remaining after thermal destruction of such wastes, as well as any wastes that do not require treatment pursuant to federal and State requirements for the land disposal of wastes, in accordance with all applicable laws and regulations; and (h) reimburse the Governments for all costs incurred not inconsistent with the NCP in connection with the activities carried out under, or with respect to, this Decree.

4. Page 18, Section V.A., Paragraph 7:

7. OCC shall complete the Remedial Action and Work referred to in Paragraph 6, above, and more particularly set forth in Section VI, below, in accordance with the standards, specifications, and requirements, and within the time periods, prescribed in Section VI, the Project Schedule approved pursuant to Paragraph 16, and all Plans and Specifications approved by the Governments pursuant to this Decree, and any report filed pursuant to Paragraph 37, below, and approved by the Governments or the Court.

5. Page 22, Section VI.A., Paragraph 22:

22. OCC shall finance and perform portions of the 1987 ROD, as modified by the 1996 ESD and this Decree, by implementing the Remedial Actions and Work specified in Paragraph 6 and more fully set forth in Subsections B through F, below.

6. Pages 37 and 38, Section VI.E., Paragraph 37.a.:

37. a. If the TDU is not permitted and operational within five years after the lodging of the Decree, OCC shall, within 30 days of the fifth anniversary of the lodging of this Decree by October 15, 1996, and annually thereafter, submit to the Governments for their approval a report proposing an alternative method for accomplishing thermal

destruction of Love Canal Remedial Wastes at the OCC Plant Site. If no alternative method for accomplishing thermal destruction at the OCC Plant Site is available, OCC shall submit to the Governments for their approval a report proposing an alternative method for accomplishing thermal destruction of Love Canal Remedial Wastes, or the land disposal of such wastes without treatment to the extent allowed by federal and state law, at another facility or facilities. If no alternative method for accomplishing thermal destruction of Love Canal Remedial Wastes at another facility is available, OCC shall submit to the Governments for their approval a report proposing an alternative method for permanent treatment of the Love Canal Remedial Wastes which, at a minimum, shall permanently reduce the mobility and toxicity of the wastes and meets all applicable legal requirements, or explaining why no such alternative method is available.

7. Page 38, Section VI.E., Paragraph 37.b.:

b. The report required to be submitted pursuant to subparagraph (a) shall include, at a minimum, a detailed description of the alternative method proposed by OCC, including the technology and/or facility to be used, the location of the facility or operations, the analytical protocols and sampling plans (with appropriate statistical justification for the number and location of samples) to be utilized for purposes of determining compliance with land disposal requirements pursuant to Subtitle C of the Resource Conservation and Recovery Act and of determining any petition by OCC to EPA pursuant to 40 C.F.R. § 268.44 for a variance from such land disposal requirements with respect to certain Love Canal Remedial wastes, and the manner and schedule for implementing the method, and a detailed description of all other alternative methods examined by OCC and the basis for OCC's determination that such methods are not available.

8. Pages 38 and 39, Section VI.E., Paragraph 37c.:

c. For purposes of this paragraph, a method is "available" if (i) it has been effectively utilized on a full-scale basis to destroy or permanently treat wastes with physical and chemical characteristics that are similar to those of the Love Canal Remedial Wastes, (ii) there is sufficient capacity to treat the Love Canal Remedial Wastes and adequately dispose of the treatment residues within a reasonable period of time, (iii) personnel and ancillary equipment necessary to implement the method are commercially available, (iv) in the case of an off-site facility, the owner or operator of the facility holds all government approvals necessary to destroy, ~~or treat, or dispose of~~ materials, ~~or residues from the treatment of such materials,~~ with physical and chemical characteristics that are similar to those of the Love Canal Remedial Wastes, and (v) in the case of a commercial facility, the charges for treatment or destruction do not exceed the fair market rate for such treatment or destruction or, if not market rate exists or can be inferred, the charges are not disproportionate to the costs incurred by the facility for treatment or destruction.

Attachment B-
Explanation of
Significant Differences

Explanation of Significant Differences



LOVE CANAL SUPERFUND SITE

CITY OF NIAGARA FALLS
Niagara County, New York

EPA
Region 2

NOVEMBER 1996

INTRODUCTION

The United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC) announce this Explanation of Significant Differences (ESD) to explain modifications to the selected remedy for the final destruction and disposal of Love Canal dioxin-contaminated sewer and creek sediments. These modifications are embodied in proposed changes to a partial consent decree between the United States and the State of New York and the Occidental Chemical Corporation (OCC) in the United States District Court for the Western District of New York.

The remedy selection for the destruction and disposal of Love Canal sewer and creek sediments was documented in the October 26, 1987 Record of Decision (ROD) for the Love Canal site (Site). The selected remedy in the 1987 ROD required that sewer and creek sediments, leachate treatment residuals, debris, and haul road materials be thermally treated on-site at Love Canal in a thermal destruction unit (TDU) and that the treatment residuals be disposed in selected areas on-site. In 1989, the United States and the State of New York and OCC entered into a Partial Consent Decree (PCD). In the PCD, OCC agreed to implement portions of the 1987 ROD at its Niagara Falls Plant instead of at Love Canal. A public notice announcing the first ESD, which identified the PCD modifications to the 1987 ROD, was published in The Niagara Gazette and The Buffalo News on June 1, 1989.

This ESD announces further modifications to the 1987 ROD that are embodied in a proposed modification to the 1989 PCD that is being lodged in the U.S. District Court simultaneously with the publication of this ESD.

The proposed modification to the PCD that is discussed in this ESD will be the subject of a public comment period. As discussed below, there will be no separate comment period with respect to this ESD. Any comments received on the subject matter that is common to the proposed PCD modification and this ESD will be addressed in the context of the comment period for the proposed modification to the PCD.

EPA is issuing this ESD in accordance with Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. § 9617(c), and Section 300.435(c)(2)(i) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. §300.435(c)(2)(i). This ESD and those documents which form the basis for the decision to modify the response action will be incorporated into the Administrative Record maintained for the Site in accordance with Section 300.835(a)(2) of the NCP.

The Administrative Record is available for review during business hours at EPA Region II, 290 Broadway, New York, New York 10007-1866 at (212) 637-4308, and at the information repository at EPA, Carborundum Center, 345 3rd Street, Room 530, Niagara Falls, NY 14303 at (716) 285-8842.

SUMMARY OF SITE LOCATION, HISTORY, CONTAMINATION PROBLEMS AND SELECTED REMEDIES

The Site is located in the southeast corner of the City of Niagara Falls, New York and is approximately one-quarter mile north of the Niagara River. Between 1942 and 1954, Hooker Chemicals & Plastics Corporation (Hooker) disposed of over 22,000 tons of chemical wastes in Love Canal. Hooker deeded the Love Canal

property to the City of Niagara Falls Board of Education in April 1953. An elementary school was built adjacent to the central portion of the Canal. During the 1950's, home construction accelerated in the area, and by 1972 area lots had been completely developed, including lots with backyards directly abutting the landfill property.

In the mid-late 1970's, wastes were observed on the surface of the landfill and in the basements of homes abutting the Canal. The Site is contaminated with various volatile organic compounds, dioxin, pesticides and heavy metals. The Commissioner of the New York State Department of Health declared a state of emergency at Love Canal on August 2, 1978. President Carter declared two environmental emergencies at Love Canal on August 7, 1978 and May 21, 1980, enabling the federal government to provide financial assistance to the State for the initiation of remedial measures and relocation assistance to the residents.

The first phases of the remedial activities at Love Canal began in October 1978, including Site containment and cutting off of sewer lines contaminated by leachate migrating from Love Canal.

On May 6, 1985, EPA issued a ROD for the Site which, among other things, called for the removal of dioxin-contaminated sediments from specific stretches of Black and Bergholtz creeks and storm and sanitary sewers, and the interim storage of these sediments in a containment facility. The sewer cleaning work was completed in late 1987.

On October 26, 1987, EPA issued a second ROD for the Site which required that all sewer and creek dioxin-contaminated sediments together with contaminated debris and treatment residuals from the on-site leachate treatment facility be thermally treated at the Site in a Thermal Destruction Unit (TDU) to six nines (99.9999%) destruction removal efficiency (DRE). Nonhazardous residuals from thermal treatment were to be disposed in select areas on-site. The 1987 proposed plan identified alternatives in which the action level of 1 part per billion (ppb) of dioxin would have triggered a requirement that the waste be treated; and materials contaminated with dioxin at levels below 1 ppb would have been able to be land-disposed without treatment. However, because segregation of material above and below the threshold was considered to be impracticable, the ROD called for the thermal destruction of all materials.

As discussed above, the PCD modified certain requirements of the October 26, 1987 ROD. The most significant modification was the change in the siting of the TDU from the Site to the OCC Buffalo Avenue Plant site (OCC Plant Site). OCC was also required to process, bag and transport the excavated sediments and other remedial wastes from a staging area at the 93rd Street School site to the OCC Plant Site. OCC was required to store these materials in a centralized, permitted storage facility and to seek a permit to incinerate the waste materials in a TDU that was to have been built at the OCC Plant Site instead of at the Site.

A second modification of the PCD provided that, after contaminated materials were treated at the OCC Plant Site, the residual materials from the thermal treatment process would not be disposed of at the Site.

DESCRIPTION OF SIGNIFICANT DIFFERENCES AND THE BASIS FOR THOSE DIFFERENCES

The selected remedy in the 1987 ROD, as modified by the PCD, required that all sediments from the sewers (2,500 yds³) and creeks (31,000 yds³) remediation, as well as debris (1,300 yds³), haul road materials (3,900 yds³), and leachate treatment residues such as spent carbon (200 yds³) be incinerated in a TDU to be constructed on the OCC Plant Site, or in a commercial incineration unit, if available. Federal statutes and regulations would require that the nonhazardous residues from thermal treatment be disposed of in a Resource Conservation and Recovery Act (RCRA), Subtitle C secure landfill.

Subsequent to the entry of the PCD in 1989, the utilization of existing commercial incineration capacity outside the City of Niagara Falls became a viable cost-effective alternative for OCC. The consideration of commercial alternatives to the TDU was also responsive to public concern about the construction and permitting of new hazardous waste incinerators within Niagara Falls.

In addition, in June 1990, EPA promulgated regulations that affected the waste classification under RCRA of the dioxin-contaminated materials addressed by the 1987 ROD and PCD. Prior to the 1990 regulations, the leachate from Love Canal (as well as the sediments which contained contaminants from the leachate, and treatment residues that were derived from the leachate) carried an F020 RCRA-listed waste classification which

required incineration for destruction of dioxin irrespective of the level of dioxin contamination in these materials.

The June 1990 regulations created a new hazardous waste category, F039, which applies to leachate from multiple sources and wastes derived from this leachate. EPA has determined that the Love Canal remedial wastes should be classified as F039 wastes under RCRA rather than F020 wastes. Under the 1990 regulations, F039 wastes containing dioxin can be treated only in facilities whose permits allow for the treatment of F039 wastes containing dioxin. F039 wastes must be treated to meet all applicable universal treatment standards (UTS) [regulatory treatment standards for over 200 organic and inorganic contaminants, including dioxin]. The UTS for dioxin is 1 ppb. There currently are several facilities that have been fully permitted for the incineration of F039 wastes containing dioxin. Once compliance with all UTS is demonstrated, treatment residues must be disposed of in a RCRA Subtitle C landfill.

In summary, as specified in the 1987 ROD and as modified by the PCD, the selected remedy required that all Love Canal sediments, debris, and treatment residues be incinerated in a TDU to be constructed on the OCC Site. However, as a result of the above-discussed regulatory changes, OCC's implementation of sediment conditioning and handling procedures that were necessary for the interim storage of sediments, as well as the availability of commercial incineration facilities, the existing remedy is no longer the only practicable and safe alternative for remediating the wastes. EPA has determined that it is no longer necessary to thermally treat all contaminated materials, irrespective of the level of contamination. Therefore, EPA has decided to modify the 1987 ROD to allow segregation of wastes based upon concentrations of contaminants in those wastes. Consistent with the F039 requirements, those segregated wastes that have concentrations of contaminants below the UTS will not require prior treatment before land disposal.

Furthermore, in addition to problems concerning implementability, the 1987 ROD addressed the fact that the community was concerned about disposal of untreated materials at Love Canal. With the proposed modification to the PCD, wastes with contaminant levels which exceed the UTS will be treated utilizing incineration for organic compounds (at facilities that have demonstrated 99.9999% DRE for dioxin surrogates more difficult to incinerate than dioxin and

will be operated at that DRE) and stabilization for metals. This treatment will be conducted at commercial facilities instead of at the OCC Plant Site. All such commercial facilities that are authorized for the treatment of F039 wastes containing dioxin are located outside of New York State. The residues from treatment, or wastes that meet UTS without treatment, will be disposed of in a RCRA Subtitle C landfill. All of these disposal facilities also are located outside of New York State. Therefore, there will be no land disposal of materials at the Site or anywhere within the vicinity of the Site.

Pursuant to the PCD, OCC dewatered and conditioned creek sediments, which are currently being stored on the OCC Plant Site. These materials will now be analyzed for purposes of segregating those portions that will meet the 1987 ROD action level of 1 ppb of dioxin from those that would not. The UTS for dioxin is also 1 ppb. In addition to analysis for dioxin, however, the RCRA regulations will also require that the residual materials be analyzed for the over 200 contaminants for which there are UTS, including metals. Only the waste materials that meet the UTS without prior treatment would be able to be land-disposed in a RCRA Subtitle C facility.

This alternative would allow OCC to transport the sewer and creek sediments, large debris, haul road materials, and leachate treatment residues to off-site facilities permitted for the treatment, storage, and disposal of these materials. Those waste materials that have low levels of contaminants that do not exceed UTS can be landfilled without prior treatment. Those organic waste materials that do not meet RCRA UTS for organic chemicals, including dioxin, will be thermally treated prior to final disposal. RCRA requirements further mandate that, after materials are treated, the residues must be tested to ensure that the UTS have been met. If the UTS have not been met, the materials must be retreated until the UTS have been met. Once the UTS are met, the treatment residuals would be disposed in a RCRA Subtitle C hazardous waste landfill.

All sediments from the sewer remediation, large debris, and spent carbon will be incinerated (4,000 yds³). However, it is anticipated that most of the haul road materials (approximately 4,000 yds³ minus those materials generated from the sediment dewatering facility) would not require treatment. With respect to the 31,000 cubic yards of creek sediments, further analysis of these sediments will provide an estimate of the percentage of sediments that meet UTS and may be

able to be land disposed without further treatment. It is believed that the majority of the creek sediments could be landfilled without treatment. Under certain circumstances, the data from these analyses might be utilized by OCC to support a petition for a site-specific variance from treatment standards in accordance with RCRA regulations (40 C.F.R. §268.44).

The overall costs for the treatment and final disposal of the wastes from the remedial action are expected to range from \$15 million (if only 4,000 cubic yards require treatment) to \$27 million (if all materials require treatment). Actual costs within this range will depend upon the percentage of the 35,000 tons of haul road materials and creek sediments that must be treated (by incineration to meet UTS for organic chemicals or waste stabilization to meet UTS for metals) prior to disposal in a RCRA Subtitle C landfill.

The incineration of all Love Canal remedial wastes, as specified in the 1987 ROD and the PCD, would offer a slightly greater degree of permanence than the land disposal of materials with low levels of contamination without treatment, as presented herein. Pursuant to the 1987 ROD, the incineration of materials with low chemical concentrations would destroy some contaminants that are present at levels below the UTS. This greater degree of permanence provided by the 1987 ROD remedy, however, is likely to be minimal since, if the UTS requirements are met without treatment, the level of contamination in these materials would be relatively low, and incineration would not result in any substantial incremental environmental benefits beyond those provided by disposal in a RCRA Subtitle C Landfill. In addition, EPA believes that the incremental risks to human health and the environment from the land disposal of those untreated materials that already meet UTS, along with incineration residuals, would be inconsequential.

SUPPORT AGENCY COMMENTS

NYSDEC has concurred with the findings of the ESD.

AFFIRMATION OF STATUTORY DETERMINATIONS

Considering the new information that has been developed and the changes that have been made to the selected remedy, EPA and NYSDEC believe that the remedy remains protective of human health and the environment, complies with all federal and state requirements that are applicable or relevant and appropriate to this remedial action at this time, and is

cost-effective. In addition, the modified remedy utilizes permanent treatment and alternative treatment (or resource recovery) technologies to the maximum extent practicable.

PUBLIC PARTICIPATION

EPA and NYSDEC rely on public input to ensure that the concerns of the community are considered in selecting an effective remedy for each Superfund site. To this end, this ESD is being made available to the public for review. In accordance with the requirements of CERCLA, EPA will publish a notice of this ESD in the local newspapers: The Niagara Gazette and The Buffalo News.

Simultaneously with the publication of this ESD, the United States is lodging a proposed modification of the PCD in federal district court which addresses the same matters as those addressed in this ESD.

Notice of a comment period on the proposed modification to the PCD will be published in the Federal Register by the United States Department of Justice. This notice will provide further details concerning the submission of comments on the proposed modification to the PCD. The comment period will run for thirty days following the date of publication of that notice. There will be no separate comment period on this ESD.

The 1987 ROD, the 1989 PCD, and the proposed modification to the PCD that is being lodged with the federal district court will be available for public inspection at the EPA Public Information Office, Carborundum Center Suite 530, 345 Third Street, Niagara Falls, New York 14303. The documents may also be reviewed at EPA's Region II Office located at 290 Broadway, New York, New York 10007-1866 by contacting George Shanahan, Assistant Regional Counsel, at (212) 637-3171. Once the Federal Register notice is published, copies of the notice also will be made available at the above addresses.

Any comments received concerning the subject matter of this ESD, which are received within the 30-day comment period for the proposed PCD modification, will be addressed within the context of the proposed PCD modification. Further information can be obtained by contacting Mr. Shanahan.

As indicated above, this ESD will be included in the Site Administrative Record, which is available at the repositories for public review.

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA

70-cv-990C

VS.

OCCIDENTAL PETROLEUM, et al

PLEASE take notice of the entry of a(x) Consent decree logged on 11/26/96 (#1366
and filed on 1/14/97 (#1369), of which the within is a copy, and
entered 1/14/97 upon the official docket in this case.

Dated: Buffalo, New York

2/10/97

RODNEY C. EARLY, CLERK
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Western District of NY
304 U.S. Courthouse
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Enclosure

cc: All Attorneys - See attached mailing list

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