

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

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:
IN THE MATTER OF THE :
:
ESSO Standard Oil S.A., Limited :
Texaco Caribbean, Inc., :
L'Henri, Inc., d/b/a O'Henry :
Cleaners :
:
TuTu Wells Site, Anna's :
Retreat, St. Thomas, U.S.V.I. : ADMINISTRATIVE ORDER
:
RESPONDENT, :
:
Proceeding Under Section 106(a) : INDEX NO. II-CERCLA-00401
of the Comprehensive Environmental : AND RCRA-90-UST-9003-0401
Response, Compensation and :
Liability Act, as amended by the :
Superfund Amendments and :
Reauthorization Act of 1986, :
42 U.S.C. §9606(a) and Section 9003 :
of the Resource Conservation and :
Recovery Act as amended, by the :
Hazardous and Solid Waste Amend- :
ments of 1984 ("RCRA") 42 U.S.C. :
§6991b. :
:
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I. JURISDICTION

1. This Administrative Order ("Order") is being issued to the above-captioned Respondents (hereinafter collectively referred to as "Respondents") pursuant to the authority vested in: 1) the President of the United States under Section 106(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as

amended by the Superfund Amendments and Reauthorization Act of 1986 ("CERCLA"), 42 U.S.C. §9601 et seq., which authority was delegated to the Administrator of the United States Environmental Protection Agency ("EPA") by the President of the United States and redelegated to the Regional Administrator of EPA; and 2) the Administrator of the United States EPA under Section 9003 of the Resource Conservation and Recovery Act as amended by the Hazardous and Solid Waste Amendments of 1984 ("RCRA") 42 U.S.C. §6991b, which authority was delegated to the Regional Administrator by EPA Delegation No. 8-37, dated June 5, 1987.

2. Notice of the issuance of this Order has been given to the Department of Planning and Natural Resource ("DPNR") of the United States Virgin Islands ("U.S.V.I.").
3. In the interest of environmental protection and public safety, Respondents shall undertake all actions required by the terms and conditions of this Order.

II. DEFINITIONS

Unless noted to the contrary, the terms of this Order shall have the same meaning as terms defined in CERCLA and RCRA. Whenever the following terms are used in this Order, the following definitions shall apply:

1. **Respondents** include ESSO Standard Oil S.A., Limited, an affiliate of EXXON Corporation, ("ESSO"), Texaco Caribbean Inc., a wholly owned subsidiary of Texaco Inc ("Texaco"), and L' Henri, Inc., d/b/a O'Henry Cleaners ("O'Henry").
2. **The TuTu Wells Site** is the area located at the eastern end of St. Thomas at the Estate Anna's Retreat section of the island ("Site").
3. **Hazardous Substances** shall mean any substance included within the definition of "Hazardous Substances" in Section 101 of CERCLA, 42 U.S.C. §9601.
4. **Petroleum** shall mean any substances included within the definition of "Petroleum" in Section 9001 of RCRA, 42 U.S.C. §6991.
5. **Remove or Removal Action** shall have the meaning set forth in Section 101(23) of CERCLA, 42 U.S.C. §9601(23).

6. **Removal Program** shall mean those actions which are required of Respondents by this Order and are specified in a detailed work plan to be submitted by Respondents and reviewed and approved by EPA.
7. **Designated Coordinator** shall mean the persons designated by Respondents who shall be responsible for the implementation and coordination of this Order and all the activities required pursuant to this Order.
8. **On-Scene Coordinator** ("OSC") shall mean the persons designated by EPA to be responsible for on-scene monitoring of all actions and activities required pursuant to this Order. The OSC shall additionally be responsible for coordinating and directing any EPA actions which may be conducted at the Site.
9. **National Contingency Plan** ("NCP") shall mean the National Contingency Plan promulgated by EPA pursuant to Section 105 of CERCLA, 42 U.S.C. §9605, and codified at 40 C.F.R. Part 300, and all amendments or modification thereof.
10. **Contractor** (including sub-contractors and consultants) shall mean the company or companies retained by Respondents to undertake and complete the work described in this Order.
11. **Day** shall mean business day. If the day for submission of any items required under this Order falls on a Saturday, Sunday or Federal holiday, it shall be submitted on the next business day.
12. **ESSO TuTu Service Station** (also known as ESSO Car Care Center) is located in St. Thomas, U.S.V.I. on the west side of highway 38 and on south-eastern corner of the Four Winds Shopping Lot.
13. **Texaco TuTu Service Station** is located in the vicinity of intersection of highways 38 and 84 in St. Thomas, U.S.V.I.
14. **O'Henry Cleaners** is located at #5 Anna Retreat, St. Thomas, V.I., on the east side of highway 38.
15. **Tillett Garden** is located where highways 38 and 84 intersect and is at #126 Anna's Retreat in St. Thomas.
16. **Facility** shall have the meaning set forth in Section 101 of CERCLA and/or Section 9001 of RCRA.

III. PARTIES BOUND

1. This Order shall apply to and be binding on: 1) ESSO Standard Oil S.A., Limited, Texaco Caribbean Inc. and L'Henri, Inc. d/b/a O'Henry Cleaners; 2) their employees, agents, contractors, and consultants acting in their behalf with respect to this Order; and 3) any successors or assigns of the Respondents.
2. No change in ownership or corporate status shall in any way alter the Respondents' responsibilities and obligations under this Order.
3. Each Respondent is jointly and severally liable for compliance with all provisions of this Order. The failure of one or more of the Respondents to comply with all or part of this Order shall not in any way excuse or justify non-compliance by any other Respondent, including but not limited to, failure to perform all obligations of any defaulting Respondent.
4. In the event of the inability to pay or the insolvency of any one of the Respondents, or if for any other reason one or more of the Respondents do not participate in the implementation of this Order, the remaining Respondents shall complete the work provided for in this Order. The failure of one or more of the Respondents to comply with all or part of this Order shall not excuse or justify noncompliance by any other Respondent.

IV. FINDINGS OF FACT

1. On or about July 7, 1987 Mr. Eric Tillett contacted the U.S.V.I. DPNR regarding an odor emanating from the raw well water on his property located at Anna's Retreat, St. Thomas, U.S.V.I. Mr. Tillett's well provided the eastern portion of St. Thomas with its main source of drinking water.
2. On July 16, 1987 the EPA received a verbal request from the U.S.V.I. DPNR to sample and analyze Mr. Tillett's well. DPNR made a written confirmation of this request to EPA dated August 10, 1987.
3. On July 21, 1987 representatives of EPA and its Technical Assistance Team ("TAT") mobilized to perform sampling of Mr. Tillett's well and six (6) additional commercial wells which served residential customers and commercial establishments throughout St. Thomas.

4. The analytical results from the TAT July, 1987 sampling indicated that Mr. Tillett's well was highly contaminated with gasoline and chlorinated organics and that the additional six (6) wells contained elevated levels of chlorinated volatile organic compounds ("VOCs").
5. Based on these results, the DPNR declared that an imminent health threat existed which could affect 20,000 people living in St. Thomas and an indefinite number of tourists who vacation in St. Thomas.
6. In order to protect public health, DPNR closed thirteen (13) commercial wells and five (5) private wells. Specifically, DPNR closed: the TuTu Water Wells located at #126 Estate Anna's Retreat on July 31, 1987; the Plaza Associate Wells at #392 Estate Anna's Retreat on August 7, 1987; the Gene Eglin Wells at #2 Estate Anna's Retreat on August 7, 1987; the A.A.S.A. Water Supply (Hartman Wells) at #3 Estate Anna's Retreat on August 7, 1987; the Harvey Well at #5c Estate Anna's Retreat on September 2, 1987; and the Steel Well at #5A Estate Anna's Retreat on September 2, 1987.
7. Subsequent to the above, EPA expanded its sampling plan due to the threat of more widespread contamination.
8. On August 10 and 11, 1987 EPA sampled a total of twenty-four (24) wells identified in the Tutu Section of Anna's Retreat within the Tutu Water/Turpentine Run Aquifer.
9. The analytical results revealed the presence of 1,2-trans-dichloroethylene ("DCE"), trichloroethylene ("TCE"), tetra-chloroethylene ("PCE"), toluene ("TOL"), benzene ("BEX") and terbutylmethylether ("TBME") in concentrations ranging from 61 parts per billion ("ppb") to 120,000 ppb in the twenty-four (24) wells. The analytical results also revealed that the EPA 10-Day Health Advisory Level of 175 ppb was exceeded in three (3) of the twenty four (24) wells sampled, with two of the three contaminated wells being private residential wells. The concentrations found ranged from 240 to 7,600 ppb with seven (7) additional wells being below the EPA 10-Day Health Advisory, but above the U.S.V.I. interim maximum permissible concentration levels set on September 1, 1987, by DPNR for volatile organics in drinking water in the Turpentine Run Aquifer (50 ppb for a single compound or 100 ppb for total volatile organic compounds ("VOCs")). Three (3) of the previously mentioned seven (7) wells were residential wells.

10. In addition to sampling twenty-four (24) wells, EPA sampled and analyzed 123 cisterns serviced by water haulers from this area. Three (3) cisterns were found to be contaminated with VOCs in excess of 1000 ppb.
11. To confirm the previous data, in October 1987 EPA conducted additional sampling for the Hazardous Substance List ("HSL") in the same twenty-four (24) wells. The major contaminants found were DCE, TCE, PCE and TBME. In addition, metals such as arsenic (15 ppb), selenium (15 ppb) and zinc (460 ppb) were detected in some of the wells.
12. On August 1-2, 1989, EPA and TAT conducted photovac sampling of the TuTu Wells Site. Analysis of these samples included the following results:

All values are in (PPB)

<u>WELL</u>	<u>BENZENE</u>	<u>TCE</u>	<u>PCE</u>
Steele		280	>1000
Smith		73	181
Mathias		48	720
Tillet	>1000	135	
Dench	15		
VIHA #1		80	316

13. In January 1988 EPA initiated a limited CERCLA Removal Action which included the decontamination and cleaning of five (5) residential cisterns contaminated by hazardous substances, the modification of plumbing, the delivery of water by tank trucks as a temporary alternative water supply and a well water monitoring program.
14. On August 17, 1987, TAT and DPNR collected samples from the ESSO Tutu Service Station's ("ETSS Facility") oil and water separator. Although the holding time was exceeded, the analysis revealed 58 ppm of 1,1,1, trichloroethene and 110 ppm of TCE.
15. On November 6, 1987 EPA sent ESSO Standard Oil Company ("ESSO") an Information Request letter under Sections 104(e) of CERCLA and 3007 of RCRA regarding the ETSS Facility.

16. On December 15, 1987, ESSO, in response to EPA's Information Request, stated in a letter signed by Ana Gloria Ramos, P.E., Safety/Environmental Coordinator for ESSO, that the ETSS facility had two existing underground storage tanks ("USTs") which store unleaded gasoline and one UST which stores used crankcase oil (installed in 1970). There was no lining system installed at the service station. The response stated that Roque Schmidt performed a Petro-Tite test on the gasoline tanks but that the test of the premium unleaded UST was stopped due to "a possible leak in tank " structure. (Memorandum dated Aug. 10-87 from Roque Schmidt to ESSO which was included in ESSO's December 15, 1987 response). The response further stated that ESSO questioned the structural integrity of the tank, immediately emptied the tank and removed it from service on July 27, 1987.
17. A subsequent inspection in September 1988 of the ETSS facility by EPA's contractor revealed that the tank had contained approximately 1000 gallons of petroleum product for at least the time period between August 1987 and February 1988.
18. On September 17, 1987 the DPNR issued an Administrative Order requiring ESSO to investigate possible petroleum product releases and refrain from disturbing the ETSS facility without receiving prior approval from the EPA and DPNR.
19. From April 5 to April 23, 1988, ESSO conducted a soil vapor survey for benzene, toluene, ethylbenzene, and xylene ("BTEX"), as well as TCE, PCE, and DCE at the ETSS facility.
20. Total BTEX soil gas values were reported in excess of 1000 parts per million ("ppm") in beneath the southern portion of the ETSS facility property adjacent to the petroleum USTs; this contamination extended from beneath the southwest portion of the ETSS facility to beneath the Four Winds Plaza Parking Lot.
21. DCE, PCE, TCE concentrations ranging from non-detectable (ND) to 189 ppm were obtained from the soil vapor survey in the west and southwest area of ETSS facility.
22. Chlorinated hydrocarbons (DCE, PCE, TCE) in concentrations ranging from ND to 16 ppm were detected from the soil vapor survey on the northwest corner of the ETSS facility.

23. The survey results showed an area of petroleum hydrocarbon vapor concentrations (benzene) with levels ranging from ND to 1,677 ppm in the south and central portion of ETSS facility.
24. During September 12- 15, 1988, an EPA contractor collected samples from ETSS oil and water separator. Although the chain-of-custody was broken, the analysis revealed 100 ppm of trichloroethane, 65 ppm of tetrachloroethane.
25. In July 8, 1989, an EPA contractor collected oil samples from ETSS UST located below the tire service area. Although the holding time was exceeded, the analysis revealed 30 ppm of tetrachloroethane and 25 ppm of 1,1,1 trichloroethane. In addition, oil samples were collected from the ETSS holding tank. Although the holding time was exceeded, this analysis revealed 63 ppm of TCE and 43 ppm of 1,1,1 trichloroethane.
26. In November 6, 1987, EPA sent Texaco Caribbean Inc. ("Texaco") an Information Request letter under Sections 104(e) of CERCLA and 3007 of RCRA regarding the Texaco TuTu Service Station facility.
27. In a November 30, 1987, response to EPA's Information Request Mr. William Hroch of Texaco stated that:
 - a. One of three 4,000 gallon USTs (all installed in 1968) which stored motor gasoline was taken out of service on July 1980 due to a suspected leak.
 - b. One of three 4,000 gallon USTs which stored motor gasoline was taken out of service in July 1987 because it had failed a mechanical integrity test.
 - c. The three UST installed in the Texaco TuTu Service Station facility in 1968 were not equipped with a lining system.
 - d. Tank piping was replaced due to the results of the Pipeline test revealing a pinhole existed in one of the pipes.
28. Mr. William Hroch of Texaco also attached to the November 30, 1987 response to EPA's Information Request:
 - a. A January 10, 1977 letter written by E.J. Ossi Jr., Manager of Texaco Puerto Rico, Inc. to Mr. R.P. Perkin, representative of Texaco Caribbean

Inc., stating that 2,242 gallons of premium gasoline had been lost due to pipeline leaks.

- b. A December 29, 1977 memorandum from Mr. Clement Friday, Texaco Terminal Superintendent to Mr. Meyeringh, Texaco Sales Manager, indicating that 242 gallons of gasoline had been lost from USTs due to pipeline leaks.
 - c. A September 5, 1980 memorandum from Mr. W. Sherman, Assistant Manager of Texaco, Puerto Rico indicating 1,212 gallons of lead-free gasoline had been lost from USTs due to pipeline leaks.
- 29. On July 23, 1987 and August 5, 1987 the DPNR issued Texaco Administrative Orders requiring them to investigate possible product releases and to refrain from disturbing the Texaco TuTu Service Station facility area without prior EPA and DPNR approval.
 - 30. During November 1987, Geoscience Consultants, Ltd. ("GCL") (Texaco's Contractor) conducted a soil gas investigation in the vicinity of the Texaco TuTu Service Station facility.
 - 31. GCL's analytical results showed a zone of significantly elevated total hydrocarbon concentrations up to 690,000 ppb in soil gas beneath the southwestern part of the Texaco TuTu Service Station facility and beneath adjacent roadways west and south of the facility. These values indicated the presence of hydrocarbons within the unsaturated soil zone.
 - 32. In September 1988, Texaco excavated tanks at its TuTu Service Station facility pursuant to the Administrative Order issued by the DPNR in August 1987. EPA and DPNR field personnel documented that one of the excavated tanks (T2) had large holes in it. The tank (T2) formerly held gasoline product.
 - 33. Texaco stored used waste oil at its facilities.
 - 34. On November 25, 1987 EPA sent O'Henry Cleaners an Information Request letter under Sections 104(e) of CERCLA and 3007 of RCRA regarding its facility located at #5 Anna's Retreat, St. Thomas, U.S.V.I.
 - 35. On December 4, 1987 O'Henry Cleaners, in response to EPA's Information Request, stated in a letter signed by Leo T. Barbel, President, that PCE is "used, stored and handled in the facility."

36. On September 8, 1988, three (3) soil samples were taken and composited at the O'Henry facility. The analysis revealed 440 ppm of PCE.
37. Health effects of some of the contaminants found in the TuTu Wells Site are listed below:
 - a. Chronic inhalation exposure to 1,2-trans-DCE causes liver degeneration, and acute exposure to high levels has adverse effects on the central nervous system. Exposure to high vapor concentrations has been found to cause nausea, vomiting, weakness, tremor, and cramps in humans.
 - b. Benzene is a known carcinogen, causing leukemia in exposed individuals. It also adversely affects the hematopoietic system. Exposure to high concentrations of benzene in the air causes central nervous system depression and cardiovascular effects, and dermal exposure may cause dermatitis.
 - c. The prime toxic effect of PCE in humans and animals from acute and chronic exposure at high doses includes central nervous system depression and liver and kidney changes (tissue damage).
 - d. Acute toluene exposure depresses the central nervous system and causes narcosis.
 - e. TCE has been shown to cause liver and kidney effects, central nervous system effects and depression in myocardial contractility at high doses.

V. CONCLUSIONS OF LAW

1. Each Respondent is a "person" as that term is defined in Section 101 of CERCLA, 42 U.S.C. §9601, and/or Section 9001 of RCRA 42 U.S.C. §6991.
2. Respondent, ESSO, is the "owner" and/or "operator" of one or more "underground storage tanks" located at its ETSS facility as those terms are defined in Section 101 of CERCLA and/or Section 9001 of RCRA.
3. ESSO owned and/or operated the ETSS facility during the time hazardous substances and/or petroleum were released into the environment and, thus ESSO is a responsible party under Section 107 of CERCLA, 42 U.S.C. 9607, and/or Section 9003 of RCRA, 42 U.S.C. 6992b.

4. Respondent, Texaco, is the "owner" and/or "operator" of one or more "underground storage tanks" located at its TuTu Service Station facility, as those terms are defined in Section 9001 of RCRA.
5. Texaco owned and/or operated the Texaco TuTu Service Station during the time petroleum was released into the environment and, thus, Texaco is a responsible party under Section 9003 of RCRA.
6. Respondent, O'Henry Cleaners, is the "owner" and/or "operator" of the O'Henry Cleaners facility as those terms are defined in Section 101 of CERCLA.
7. O'Henry Cleaners owned and/or operated the O'Henry facility at which hazardous substances were disposed of and, thus, O'Henry Cleaners is a responsible party under Section 107 of CERCLA.

VI. DETERMINATION

1. Based on the FINDINGS OF FACT and the CONCLUSIONS OF LAW set forth above, EPA has determined that the release and/or threat of release of hazardous substances and/or petroleum into the environment at and/or from the TuTu Wells Site present an imminent and substantial endangerment to the public health, welfare or the environment within the meaning of Section 106(a) of CERCLA, and/or Section 9003 of RCRA.
2. As a result of a release of hazardous substances and/or petroleum at and/or from the Tutu Wells Site, EPA has determined that the following corrective/removal actions are required in order to protect human health and the environment pursuant to Section 106 of CERCLA and/or Section 9003 of RCRA.

VII. ORDER

Based upon the foregoing FINDINGS OF FACT and CONCLUSIONS OF LAW, IT IS HEREBY ORDERED that Respondent shall take the following actions to abate the release and/or threat of release into the environment of hazardous substances and/or petroleum at and/or from the ETSS, Texaco and O'Henry facilities.

1. In accordance with the recommendation set forth in the September 1989 Tutu Well Site Potable Water Alternatives Report, Respondents shall provide a permanent water supply to the affected homes (depicted in figure 4.1 on page 10 of the Report). (A copy of the Tutu Well Site Potable Water Alternatives Report ("PWAR") has been sent to the Respondents under separate cover.)

Respondents may provide a permanent water supply to the affected homes in one of the following two ways:

- A. Respondents may contact Mr. Anthony Boschulte, Director of Planning and Development at the Virgin Islands Housing Authority ("VIHA"), (809) 775-2741, and arrange to contract with the VIHA to insure connection of the affected homes (depicted in figure 4.1 on page 10 of the PWAR) to the existing water main. This connection must be done in accordance with all local laws and permitting requirements. Respondents will have forty-five (45) days from their receipt of this Order to have such a contract in place. A copy of this contract must be submitted to EPA on the forty-fifth day.
 - B. If within forty-five (45) days, Respondents have not contracted with the VIHA to insure connection of the above-described homes to the existing water main, Respondents must connect these affected homes to the existing water main with two lateral connection systems in accordance with Section VIII. A. of this Order.
2. If during the duration of this Order, the drinking water of any additional private home(s) (not depicted in figure 4.1 on page 10 of the PWAR) is found to exceed any of the Maximum Contaminant Levels ("MCL"), Respondents shall take steps to insure these homes are connected to the existing water main or shall themselves connect these homes to the existing water main pursuant to Section VIII. A. of this Order. Until such a connection is completed, Respondents shall supply water to these homes as provided by Section VII.3, below.
 3. Respondents shall provide potable water, as needed, to all affected homes until these homes are connected to the existing water main and these connections are operational to the satisfaction of EPA, DPNR and the Water and Power Authority (WAPA). (Presently, the cistern feeding the affected homes depicted in figure 4.1 of the PWAR receives, by truck, approximately 5,000 gallons of water

per month.) Should there be any dispute between Respondents and the affected parties regarding the amount of potable water needed, EPA shall act as the final arbiter.

4. Respondents shall monitor the twenty-four (24) wells at the Tutu Wells Site as provided in Section VIII. B.
5. All activities required under this Order shall be initiated and completed as soon as possible but no later than the maximum time frames set forth in the Permanent Water Supply Design Report prepared by Respondents pursuant to this Order.

VIII. DESCRIPTION OF WORK

A. Permanent Water Supply

Permanent Water Supply Design Report ("PWSD Report")

1. If Respondents do not satisfy the conditions set forth in VII.A, then within sixty (60) days following the effective date of this Order, Respondents shall submit to EPA the following items:
 - a. PWSD plans and specifications, ("PWSD Plans and Specifications"), which shall detail Respondents technical proposal for implementation of the two lateral connection systems to the affected homes. The PWSD Plans and Specifications shall include engineering drawings of the two lateral connection systems main and flow diagrams of the water distribution system and a survey report;
 - b. The PWSD Plans and Specifications must conform with the Virgin Islands Housing Authority (VIHA) Master Plan dated March 7, 1989. (A copy of this plan has been sent to Respondents under separate cover.)
 - c. A draft operation and maintenance ("Draft O&M") plan which shall include, without limitation, a description of tasks routinely associated with operating and maintaining the two lateral connection systems at operating efficiency;
 - d. a construction plan;

Permits and Authorizations

7. Prior to construction to the lateral connections, Respondents shall apply for all necessary authorizations and permits if that is appropriate. Following the final inspection, Respondents shall also apply for and obtain any remaining authorizations and permits necessary to ensure the earliest possible operation of the lateral connections.
8. Respondents shall provide EPA with a copy of each such application upon preparation and submittal thereof and each such authorization or permit upon receipt.

B. Sampling, Analysis and Monitoring

9. Within fifteen (15) days following the effective date of this Order, Respondents shall submit to EPA for review and approval a Well Sampling, Analysis and Monitoring Plan ("SAMP").
10. The SAMP shall include, without limitation, the following:
 - a. a map depicting sampling locations. Said map shall include points for sampling of the residential wells (listed at Table 2-1 on page 16 of the PWAR and depicted on Figure 2-2 on page 5 of the PWAR);
 - b. a plan for conducting quarterly sampling and analysis at the points described above using Photovac portable GC screening. However, at every other sampling event, Respondents shall conduct a confirmation analysis using the Target Compound list ("TCL") under the Contract Laboratory Program ("CLP") as set forth in Section 10 of the publication "Test Methods for Evaluating Solid Wastes" as amended ("SW-846") and "Guidance for Preparation of Combined Work/Quality Assurance Project Plans for Environmental Monitoring" (USEPA, Office of Water Regulations and Standards, May, 1984);
 - c. a schedule for performance of specific tasks;
 - d. a Site Management Plan which shall include identification of contractors and subcontractors, their respective responsibilities for performance of sampling, analysis and monitoring activities and

their curriculum vitae. (If performance of any subsequent phase of Work required by this Order requires alteration of the Site Management Plan, or if Respondents retain different contractors or subcontractors for performance of later phases of the Work, Respondents shall submit to EPA for review and approval, proposed amendments to the Site Management Plan and shall submit further curricula vitarum as other individuals become or are about to become involved in performance of later activities);

- e. a Quality Assurance/Quality Control ("QA/QC") Plan and a description of Chain of Custody Procedures which comply with Paragraphs 11-13 below.
 - f. a Health and Safety Plan, which shall satisfy the requirements of 29 C.F.R. §1910.120, OSHA Hazardous Waste Operation Standards, and EPA's Standard Operating Safety Guides (OSWER, 1988). If performance of any subsequent phase of the Work required by this Order requires alteration of the Health and Safety Plan, Respondents shall submit to EPA amendments to the Health and Safety Plan which comply with the requirements referenced in this paragraph.
- 11. The QA/QC Plan in the SAMP shall be in accordance with Section 10 of the SW-846, as amended and "Guidance for Preparation of Combined Work/Quality Assurance Project Plans for Environmental Monitoring" (USEPA, Office of Water Regulations and Standards, May, 1984);
 - 12. If performance of any subsequent phase of the Work required by this Order requires alteration of the QA/QC Plan, Respondents shall submit to EPA for review and approval proposed amendments to the QA/QC Plan.
 - 13. The Respondents shall use QA/QC procedures in accordance with the QA/QC Plan submitted and approved by EPA pursuant to this Order and shall use standard EPA Chain of Custody procedures as set forth in the National Enforcement Investigations Center Policies and Procedures Manual, as amended, the National Enforcement Investigations Center Manual for the Evidence Audit, published in September, 1981 or as updated, and Section 1.3 of SW-846, for all sample collection and analysis activities conducted pursuant to this Order. In addition, Respondents shall:

- a. ensure that all contracts with laboratories used by Respondents for analysis of samples taken pursuant to this Order provide for access of EPA personnel and EPA authorized representatives to assure the accuracy of laboratory results related to the Tutu Wells Site;
 - b. ensure that laboratories utilized by Respondents for analysis of samples taken pursuant to this Order perform all analyses according to accepted EPA methods. Accepted EPA methods consist of those methods which are documented in the "Contract Lab Program Statement of Work for Inorganic Analysis," dated July 1985, and any amendments made thereto during the course of this Order;
 - c. ensure that all laboratories used by Respondents for analysis of samples taken pursuant to this Order participate in an EPA or EPA approved equivalent QA/QC program.
14. EPA will either approve the SAMP, or will require modification of all or a portion of it, in accordance with the procedures set forth in Paragraphs 1-3, Section XI below.
 15. Within ten (10) days of Respondent's receipt of EPA approval of the SAMP, Respondents shall initiate sampling, analysis and monitoring activities, which shall be conducted in accordance with the schedule and procedures set forth in the EPA-approved SAMP. Results of all samples taken pursuant to this Order shall be provided to EPA within seven (7) days of receipt by Respondents of such analyses and, if Section VIII.A is applicable, these analyses shall additionally be incorporated into the Permanent Water Supply Design Report ("PWS Design Report") submitted by Respondents.

IX. DESIGNATED COORDINATOR

1. Not later than five (5) business day after the effective date of this Order, Respondents shall designate a coordinator, to be known as the Designated Coordinator, and shall notify EPA in writing of the name, address, job title, qualification and telephone number of the Designated Coordinator. All EPA communications with Respondents regarding this Order shall be addressed to the Designated Coordinator. The Designated Coordinator shall be responsible for the implementation of the requirements of this Order, and shall have the necessary

technical expertise to coordinate all aspects of the work contemplated by this Order.

2. Respondents shall use its best efforts to avoid or minimize any delay or prevention of performance of its obligations under this Order. In the event of an inability or anticipated inability on the part of Respondents to perform in a timely manner any of the activities required under this Order, the Designated Coordinator shall immediately inform EPA, verbally and in writing, of the reason, the date, and the duration of such inability to perform and the actions taken or to be taken by Respondent to avoid or mitigate the impact of such inability to perform, including a proposed schedule for such actions. Such notification by the Designated Coordinator shall not relieve Respondents of any of their obligations under this Order.
3. As appropriate during the course of implementation of the actions requested pursuant to this Order, Respondents or their consultants or contractors, acting through the Designated Coordinator, may confer with the EPA concerning those actions. Based upon new circumstances or new information not in the possession of EPA on the date of this Order, the Designated Coordinator may request in writing EPA approval of a modification of the the EPA approved PWSD Report or of any another requirement set forth in this Order. If the modification is approved by EPA in writing, it shall be implemented immediately by Respondents and incorporated into this Order. Changes in deadlines must be approved in writing, and may be approved by the Chief of the New York/Caribbean Compliance Branch of the Emergency and Remedial Response Division of EPA Region II.

X. REPORTING, ACCESS, SAMPLING

1. All submittals and notifications to EPA pursuant to this Order shall be made in writing to:
 - (4 copies) i. Caroline Kwan, Project Officer, Eastern New York/Caribbean Compliance Section, Emergency and Remedial Response Division, U.S. Environmental Protection Agency, Region II, 26 Federal Plaza, New York, New York 10278;
 - (1 copy) ii. Jose Font, Project Officer, U.S.E.P.A.- Caribbean Field Office, Office 2A, Podiatry

Center Building, 1413 Fernandez Juncos
Avenue, Santurce, Puerto Rico 00907

- (2 copies) iii. Luis E. Santos, U.S.E.P.A.- Caribbean
Field Office, Office 2A, Podiatry Center
Building, 1413 Fernandez Juncos Avenue,
Santurce, Puerto Rico 00907
- (1 copy) iv. Amy Chester, Assistant Regional Counsel,
U.S.E.P.A., Office of Regional Counsel,
New York, NY 10278
- (2 copies) v. Alan D. Smith, Commissioner
Department of Planning & Natural Resources
Nisky Center
Suite 231
45A Estate Nisky
St. Thomas, U.S.V.I. 00801
- (2 copies) vi. Mr. Anthony Boschulte, Director
of Planning and Development
Virgin Islands Housing Authority
P.O. Box 7668
St. Thomas, U.S.V.I. 00801
2. Respondents shall provide written monthly progress
reports to EPA by the tenth day of every month following
the effective date of this Order. These reports shall
describe all work performed during the past month as well
as work expected to be performed during the coming month.
3. To the extent permitted by law, access to the Tutu Wells
Site shall be provided to EPA, DPNR, the various
Respondents and each party's respective representatives,
agents, employees, contractors, and consultants; the
Respondents shall permit EPA and DPNR representatives to
be present at the Tutu Wells Site at any and all times
and to observe any and all activities conducted pursuant
to this Order.
4. All data, information, and records maintained or created
by Respondents and its agents, employees, contractors or
consultants in connection with the implementation of this
Order--including, but not limited to, contractual
documents and raw sampling and other monitoring data
shall be made available to EPA, DPNR and their designated
representatives. In addition, no such data, information
or records shall be destroyed for eight years, following
completion of the work required by Section VIII of this
Order without: 1) a written offer by Respondents to

provide such material to the above referenced agencies; and 2) receipt of express written approval from the Chief of the New York/Caribbean Compliance Branch of the Emergency and Remedial Response Division of EPA Region II.

5. All records produced by Respondents and delivered to EPA and/or DPNR in the course of implementing this Order shall be available to the public unless identified as confidential in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. §9604; Section 9005(b) of RCRA, U.S.C. §6991d(b), and Subpart B of 40 C.F.R. Part 2.
6. Respondents shall give EPA fifteen (15) working days advance notice of all on-site and off-site sampling activities.
7. Upon request by the EPA or DPNR, Respondent shall provide split samples of any material sampled in connection with the implementation of this Order.
8. To the extent permitted by law, Respondents shall take steps to insure that all employees of all persons or entities, including contractors, who engage in activities pursuant to this Order, are reasonably available to and shall cooperate with EPA and DPNR in providing information and in implementing the requirements of this Order at the Tutu Wells Site.
9. With respect to all chemical analyses and all disposal operations conducted pursuant to this Order, Respondents shall provide the OSC with the identity of and, if applicable, licensing identification numbers of (e.g., waste haulers or disposal facilities) all persons or entities performing such work within five (5) working days of selection of such persons, companies, or facilities, for purposes of establishing that all such activities are performed in accordance with EPA approved methodology or that all hazardous wastes ultimately disposed of are properly transported to, and disposed of at, EPA approved hazardous waste disposal facilities and notification must be given in advance to the state that is receiving the hazardous wastes.

XI. PLANS AND REPORTS REQUIRING AGENCY APPROVAL

1. If EPA disapproves any plan, report or other item required to be submitted to EPA for approval pursuant to this Order, Respondents shall have ten (10) days from the receipt of notice of disapproval to correct any

deficiencies and resubmit the plan, report or item for approval, unless a shorter or longer period is specified by EPA in writing. Any notice of disapproval shall include an explanation of why the plan, report and/or items are being disapproved. Respondents shall address each of the comments and resubmit the plan, report or item with the required changes within the deadline established in this Order or EPA's written notice.

2. If any plan, report or item is not approved by EPA after resubmission, Respondents may be deemed to be out of compliance with this Order. In the event that a resubmitted plan or portion thereof is disapproved, EPA retains the right to modify or develop the plan, report or item. The Respondents shall implement any such plan as modified or developed by EPA.
3. EPA shall be the final arbiter in any dispute regarding the sufficiency or acceptability of all documents and of any activities performed pursuant to this Order and EPA may unilaterally modify the documents or require the performance of additional work as EPA deems necessary to complete the Removal Program under this Order. At such time, EPA will transmit to Respondents a written statement to that effect.

XII. OTHER APPLICABLE REQUIREMENTS

1. All activities required of Respondents under this Order shall be performed only by qualified persons possessing all necessary permits, and other authorizations required by the Federal Government and the U.S.V.I.
2. All actions and activities carried out by Respondents pursuant to this Order shall be performed in accordance with all applicable, relevant and appropriate federal, territorial, and local laws, regulations, requirements and guidances applicable at the time of the action. In the case of a conflict, the most stringent standards shall apply.
3. All waste disposal conducted by Respondent pursuant to this Order shall comply with the requirements of the RCRA 42 U.S.C. § 6901 et seq., the Toxic Substances Control Act ("TSCA"), 15 U.S.C. § 2601 et seq., and all applicable regulations promulgated pursuant thereto, as well as all other applicable federal, U.S.V.I., local laws and regulations.

XIII. LIABILITY, INDEMNIFICATION and RELEASES

1. Neither EPA nor the United States, by issuance of this Order, assumes any liability for any injuries or damages to persons or property resulting from acts or omissions by Respondents or other parties listed in Section III.1 of this Order.
2. Nothing herein shall constitute or be construed as, a satisfaction or release from liability with respect to any conditions or claims arising as a result of past, current, or future operations, ownership, or use of the Tutu Wells Site by Respondents or other parties listed in Section III.1 of this Order.
3. Nothing in this Order constitutes a decision on preauthorization of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. §9611(a)(2), or any authorization for the Respondents, or other parties listed in Section III.1 of this Order, to assert any claim(s) against or to request any reimbursement from the Hazardous Substance Superfund, pursuant to Section 111 or 112 of CERCLA, 42 U.S.C. §§9611 and 9612, or under any other provision of CERCLA or based upon common law, statutory or equitable grounds.
4. EPA is not, and shall not be represented as, a party to any contract entered into by, or on behalf of Respondents in carrying out the work pursuant to this Order.
5. Nothing contained in this Order shall affect any right, claim, interest, defense or cause of action of EPA with respect to Respondents or third parties.

XIV. ENFORCEMENT ACTIONS

1. Failure of Respondents to carry out expeditiously and completely the terms of this Order may result in EPA taking the required actions unilaterally, pursuant to Section 104(a)(1) of CERCLA, 42 U.S.C. §9604(a)(1) and/or Section 9003 of RCRA, 42 U.S.C. §6991(b).
2. This Order, and the EPA approved documents prepared in compliance herewith, shall be enforceable pursuant to Sections 106(b) and 113(b) of CERCLA, 42 U.S.C. §9606(b) and §9613(b) and/or Sections 9003 and 9006 of RCRA, 42 U.S.C. §6991b and e. Respondents may also be subject to cost recovery, civil penalties and/or punitive damages of up to three times the amount of any costs incurred by EPA

as provided in Sections 106(b), 107(a), and 107(c)(3) of CERCLA, 42 U.S.C. §9606(b), §9607(a) and/or §9607(c)(3), and Section 9006 of RCRA, 42 U.S.C. §6991e, for failure to comply with the terms of this Order. Nothing herein shall preclude EPA from taking any additional enforcement actions, and/or additional actions as it may deem necessary for any purpose, including the prevention or abatement of an imminent and substantial endangerment to the public health, welfare, and/or the environment arising from conditions at the Tutu Wells Site and/or from recovering the costs thereof; nor shall anything herein preclude DPNR from taking legal action pursuant to U.S.V.I. law.

3. EPA reserves the right to take any action described in this Order which may be appropriate to protect public health, welfare and/or the environment, and Respondents may be held liable under Section 107 of CERCLA 42 U.S.C. §9607 and/or Section 9003 of RCRA, 42 U.S.C. §6991b, for the costs of such action.

IV. EMERGENCY PROVISION

1. In the event the Respondent identifies a current or immediate threat to human health or the environment, the Respondent shall immediately notify EPA orally and notify EPA in writing within five (5) days summarizing the immediacy and magnitude of the potential threats to human health or the environment. The Respondent shall submit to EPA, as soon as possible, a plan for approval which mitigates this threat. EPA will approve or modify this plan, and the Respondent shall implement this plan as approved or modified by EPA. If EPA determines that immediate action is required, then the Associate Director of the Enforcement Programs of the Emergency and Remedial Response Division, Region II, may orally authorize the Respondent to act prior to making the required written submission to EPA.
2. If EPA determines that activities in compliance or non-compliance with this Order, have caused or may cause a release of a hazardous waste, hazardous constituents, pollutant, contaminant or petroleum or may pose a threat to human health or the environment, EPA may order the Respondent to stop further implementation of this Order for such period of time as may be needed to abate any such release or threat and/or 2) undertake any action which EPA determines is necessary to abate such release or threat.

XVI. COMMUNITY RELATIONS

1. Respondents shall cooperate with EPA in providing information relating to the work required hereunder to the public. As requested by EPA, Respondents shall participate in the preparation of all appropriate information disseminated to the public and in public meetings which may be held or sponsored by EPA to explain activities at or concerning the Tutu Wells Site.

XVII. NO FINAL AGENCY ACTION

1. Notwithstanding any other provision of this Order, no action or decision by EPA pursuant to this Order, including without limitation, decisions of the Regional Administrator, or any authorized representative of EPA, shall constitute final agency action giving rise to any rights of judicial action prior to the time the EPA files a Court action for penalties of this Order, or an action to compel Respondents' compliance with the terms and conditions of this Order.
2. In any action brought by EPA for a violation of this Order the Respondent shall bear the burden of proving that EPA's actions were arbitrary and capricious and not in accordance with the law, or this Order.

XVIII. TERMINATION

1. When Respondents conclude that the work required under this Order has been fully performed, the Respondents shall notify EPA by submitting a written report certifying that all the work has been completed in full satisfaction of the Order. If EPA determines that work has been fully performed and concludes that the provisions of the Order have been satisfied, EPA's Regional Administrator will notify Respondents in writing. Except as provided in Section X.4 and as specifically provided in other parts of this Order, this order terminates upon Respondents' receipt of EPA's termination notice.

XIX. OPPORTUNITY TO CONFER, EFFECTIVE DATE

1. This Order shall become effective on the tenth (10th) business day following the date on which it is issued.

XIX. OPPORTUNITY TO CONFER, EFFECTIVE DATE

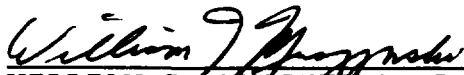
1. This Order shall become effective on the tenth (10th) business day following the date on which it is issued.
2. Not later than five (5) calendar days from the date this Order is received by Respondents, Respondents may confer with EPA to discuss this Order, including the Findings upon which the Order is based, the appropriateness of any action or activity required to be undertaken herein, or other issues or contentions directly relevant to the issuance of this Order. Such conference is not, and shall not be deemed to be, an adversarial hearing or part of a proceeding to challenge this Order, and no official stenographic record of such proceeding shall be kept. Any request for a conference shall be made to Amy Chester, Esq., Office of Regional Counsel, United States Environmental Protection Agency, Region II, 26 Federal Plaza, New York, New York 10278, (212) 264-4760.

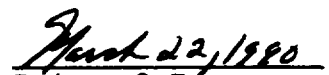
XX. NOTICE OF INTENT TO COMPLY

1. Within ten (10) days of the effective date of this Order, each Respondent shall notify EPA in writing, of its intent, or lack thereof, to comply with this Order. This notification shall be sent to Amy Chester, Assistant Regional Counsel, Air, Waste & Toxic Substances Branch, U.S. Environmental Protection Agency, Region II, 26 Federal Plaza - Room 400, New York, New York 10278

It is so ordered by:

U. S. ENVIRONMENTAL PROTECTION AGENCY


WILLIAM J. MUSZYŃSKI, P.E.
Deputy Regional Administrator
U.S. Environmental Protection Agency
Region II


Date of Issuance