CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

ORDER NO. 85-80 (REV. 11/20/85)

WASTE DISCHARGE REQUIREMENTS FOR IT CORPORATION IMPERIAL VALLEY CLASS I SOLID WASTE MANAGEMENT UNIT Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

- 1. IT Corporation (hereinafter also referred to as the discharger), 23456 Hawthorne Boulevard, Suite 220, Torrance, California, 90505, submitted a Report of Waste Discharge dated May 28, 1985, with subsequent additions.
- 2. The discharger's operations are contained in its privately owned 640-acre tract comprising Section 16, T13S, R12E, SBB&M. A site plan of said Section 16 is shown in Attachment "A" appended hereto as a part of this Order. Approximately 300 to 400 acres of this section appear to be developable for industrial waste disposal areas with a total capacity expectancy of 30 to 50 years beginning from about the year 1980.
- 3. The discharger is currently discharging industrial waste to surface impoundments No. 3, 5, 8, and 9 under Order No. 84-111 adopted by the Regional Board on November 14, 1984. These impoundments are located in the E 1/2, SE 1/4 of said Section 16. The discharger is also proposing to construct and operate a solid waste management unit (SWMU) for hazardous waste on approximately seven (7) acres in the E 1/2, NE 1/4 of said Section 16. For purposes of this Order, solid waste will be defined as waste that contains no free liquid as prescribed in Prohibition B.3. of this Order. The additional findings, and the waste discharge requirements contained herein are designed to control waste discharges into said SWMU leaving intact Order No. 84-111 as to the discharges of wastes specified therein.
- 4. The SWMU is located at the former site of the geothermal brine surface impoundments (MS-1 and MS-2), which were used for storage of geothermal brines transported from Imperial Thermal Products' basins adjacent to Salton Sea. The site has been totally redesigned, and as such constitutes a new waste management unit which is subject to the prescriptive standards and regulations prescribed in Subchapter 15, Chapter 3, Title 23 of the California Administrative Code.
- 5. Solid wastes requested to be discharged to said SWMU are categorized below, showing also the Department of Health Services (DHS) waste categorization numbers from Table III of the National Uniform Hazardous Waste Manifest. Since each DHS shipping number includes broad categories of wastes within which are included the specific wastes allowed to be discharged under this Order, the DHS numbers are to be considered as a reference only. The wastes are further defined by University of California at Davis (UCD) numbers

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CALIFORMIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

ORDER NO. 85-80 (REV. 11/20/85)

ASTE DISCHARGE REQUIREMENTS

IT CORPOL TION IMPERAL VALLEY CLASS I SOLD WASTE MANAGEMENT UNIT

The Galifornia Regional Water Quality Control Board, Colorado River Basin Region, finds that:

- IT Corporation (hereinafter also referred to as the discularger), 23456 Hawthorne Boulevard, Buite 220, Torrance, Californin, 90506, submitted a Report of Waste Discharge dated May 28, 1985, with subsequent additions.
- . The discharger's operations are contained in its privately owned 540-acretract comprising Section 15, T135, T12E, SBB&M. A site plan of said Section 16 is shown in Attachment "A" appended hereto as a part of this Order. Approximately 300 to 400 acres of this section appear to be developable for industrial waste disposal areas with a total capacity expectancy of 30 to 50 years beginning from about the year 1980.
- The discharger is currently discharging industrial waste to surface impoundments No. 3, 5, 8, and 9 under order No. 84-111 adopted by the Regional Board on November 14, 1984. These impoundments are located in the E 1/2, SE 1/4 of said Section 16. The discharger is also proposing to construct and operate a solid waste management unit (SWAU) for hazardous waste on approximately seven (7) acres in the E 1/2, NE 1/4 of said Section 16. The discharger is also proposing to construct and operate a solid waste management unit (SWAU) for hazardous waste on approximately seven (7) acres in the E 1/2, NE 1/4 of said Section 16. The discharger is also proposing to construct and operate a solid waste management unit (SWAU) for hazardous waste on approximately seven (7) acres in the E 1/2, NE 1/4 of said Section 16. The discharger is a solid waste management unit (SWAU) for hazardous waste on approximately seven (7) acres in the E 1/2, NE 1/4 of said Section 16. The distribution 16. The distribu
- The SWMU is located at the former site of the geothermal brine surface impoundments (MS-1 and MS-2), which were used for storage of geothermal brines transported from Imperial Thermal Products' basins adjacent to Salton Set. The site has been totally redesigned, and as such constitutes a new waste management unit which is subject to the prescriptive standards and regulations prescribed in Subchapter 15, Chapted 3, Title 23 of the California Administrative Code.
- . Solid wastes requested to be discharged to said SWMU are categorized bolow, showing also the Department of Health Services (DHS) waste categorization numbers from Table III of the Mational Uniform Hazardous Waste Manifest. Since each DHS shipping number includes broad categories of wastes within which are included the specific wastes allowed to be discharged under this Order, the DHS numbers are to be considered as a reference only. The wastes are further defined by University of California at Davis (UCD) numbers

as set forth in its publication titled "Hazardous Wastes Generation and Off-Site Disposal patterns', dated 1981.

- a. Solid Residue from Geothermal Drilling Muds (DHS 521) (UCD 515)
- Solid Residue from Geothermal Workover and Cleanout Fluids (DHS 135) (UCD 144)
- c. Solid Residue from Geothermal Testing Fluids (DHS 135) (UCD 144)

d. Solid Residue from Geothermal Brines and Residue which includes:

Brine (DHS 135) (UCD 145) Inorganic Solids (DHS 181) (UCD 151) Filter Press Cake/Sludge (DHS 491) (UCD 412)

- e. Solid Residue from Geothermal Cooling Water Pretreatment Sludge (DHS 491) (UCD 456)
- f. Solid Residue from Pretreatment Sludge (other than from geothermal sources) from Cooling Water Makeup (DHS 491) (UCD 456)
- g. Solid Residue from Geothermal Cooling Tower and Boiler Blowdown Sludge (DHS 491) (UCD 456)
- h. Solid Residue from Cooling Tower and Boiler Blowdown Sludge (other than from geothermal sources) (DHS 491) (UCD 456)
- i. Solid Residue from Pesticide Container Rinsewater (DHS 231) (UCD 511)
- j. Solid Residue from Outdated Pesticide Stock which includes:

Pesticide and Wastes (DHS 232) (UCD 241) Organic Solid With Halogens (DHS 351) (UCD 231) Organic Solid Without Halogens (DHS 352) (UCD 232)

k. Solid Residue from Pesticide Containers which includes:

Contaminated Equipment, Container (DHS 511/513) (UCD 532) Contaminated Rags, Pallets (DHS 512) (UCD 521)

1. Solid Residue from Fluids Coincidental to Gas/Oil Exploration and Production which includes:

Brine (DHS 135) (UCD 145) Mixture of Oil, Mud/Sediment and Water (DHS 223) (UCD 283) Mixture of Oil, Gas with Water (DHS 223) (UCD 289) Drilling Mud (DHS 521) (UCD 515)

m. Solid Residue from Ballast Water after Oil Removal and Recycle which includes:

Aqueous Solution with Less than 10% Organic Residue (DHS 134) (UCD 225) as set forth in its publication titled "Hazardous Wastes Concration and Off-Site Disposal patterns', dated 1981.

. Solid Residue from Geotherinal Drilling Muds (DHS 521) (UCD 515)

 Solid Residue from Geothermal Workover and Cleanout Fluids (DHS 135) (UCD 141)

2. Solid Residue from Geothermal Testing Fluids (DHS 135) (UCD 144)

. Solid Residue from Geothermal Brines and Residue which includes:

Brine (DHS 135) (UCD 145) Inorganic Solids (DHS 181) (UCD 151) Filter Pross Cake/Sludge (DHS 431) (UCD 412)

- Solid Residue from Geothermal Cooling Water Pretreatment Sludge (DHS 491) (UCD 456)
- Solid Residue from Pretreatment Sludge (other than from geothermal sources) from Cooling Water Makeup (DHS 431) (UCD 456)
- (. Solid Residue from Ceothermal Cooling Tower and Boller Blowdown Sludge (DHS 491) (UCD 456)
- Solid Residue from Cooling Tower and Boiler Blowdown Sludge (other than from geothermal sources) (DFS 491) (UCD 455)
- Solid Residus from Pesticide Container Rinsewater (DHS 231) (UCD 511)
 - . Solid Residue from Outdated Pesticide Stock which includes:

Pesticide and Wastes (DHS 232) (UCD 241) Organic Solid With Halogens (DHS 351) (UCD 231) Organic Solid Without Halogens (DHS 352) (UCD 232)

Solid Residuel from Pesticide Containers which includes:

Contaminated Equipment, Container (DHS 511/513) (JCD 532). Contaminated Rays, Pallets (DHS 512) (BCD 521)

Solid Residue from Fluids Coincidental to Gas/Oil Exploration and Production which includes:

Brino (DHS 135) (UCD 145) Mixture of Oil, Mud/Sadiment and Water (DHS 223) (UCD 283) Mixture of Oil, Gas with Water (DHS 223) (UCD 283) Drilling Mod (DHS 521) (UCD 515)

n. Solid Residue from Ballast Water after Oil Removal and Recycle which 'includes:

Aqueous Solution with Less than 10% Organic Residue (DHS 134) (UCD 225)

n. Solid Residue from Neutralized Aqueous Solutions of Acidic or Alkaline Origin which includes:

Acidic Solution with Heavy Metals (DHS 111) (UCD 111) Acidic Solution with Other Metals and Non-Metals (DHS 112) (UCD 112)

Other Acidic Solutions (DHS 113) (UCD 113) Alkaline Solution with Heavy Metals (DHS 121) (UCD 121) Alkaline Solution with Other Metals and Non-Metals (UHS 122) (UCD 122)

Other Alkaline Solutions (DHS 123) (UCD 123) Spent Etching/Plating Solution, Acidic (DHS 132) (UCD 131) Spent Etching/Plating Solution, Alkaline (DHS 132) (UCD 141) Aqueous Solution with Heavy Metals (DHS 132) (UCD 142) Aqueous Solution with Other Metals (DHS 132) (UCD 142) Rinsewater and Wastewater (DHS 135) (UCD 142) Mud/Sediment and Water (DHS 491) (UCD 527)

o. Solid Residue from Wastewater Treatment Solids which includes:

Polymeric Resin Wastes (DHS 272) (UCD 261) Latex and Wastes (DHS 291) (UCD 262) Other Polymeric Materials and Wastes (DHS 272) (UCD 263) API Separator Sludge (DHS 322) (UCD 286) API Separator Sludge (DHS 322) (UCD 286) Other Wastewater Treatment Sludge (DHS 491) (UCD 456)

p. Solid Residue from Stormwater Runoff from Areas on this Site used to Handle Wastes which includes:

Rinsewater and Wastewater (DHS 135) (UCD 511) Mud/Sediment and Water (DHS 491) (UCD 527)

q. Solid Residue from Tank Bottom Sediments and Cleaning Solutions which includes:

Aqueous Solution with Less than 10% Organic Residue (DHS 134) (UCD 225) Aqueous Solution with Greater than 10% Organic Residue (DHS 133) (UCD 227) Oily Tank Bottoms (DHS 241) (UCD 523) Bottom Sediments (DHS 241) (UCD 523)

r. Soil Contaminated with Petroleum Products (DHS 611), provided that the volatile organic concentrations do not exceed Imperial Air Pollution Control District or California Department of Health Services permit limits, and provided that the wastes are not flammable solids, or oxidizers (as defined in 49 CFR 173.150 and .151) or reactive, as defined in Section 66705, Title 22, of the California Administrative Code.

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n. sourd restone from ventralized Aqueous solutions of Actors of Automote Mikanne Origin which includes:

Acidic Solution with Heavy Metals (DHS 111) (UCD 111) Acidic Solution with Other Metals and Non-Metals (DHS 112) (UCD 112)

Other Acids Solutions (DHS 113) (UCD 113) Alkaline Solution with Heavy Metals (DHS 121) (UCD 121) Alkaline Solution with Other Metals and Non-Metals (DHS 122) (UCD 122)

Other Alksline Solutions (DHS 123) (UCD 123) Spent Etching/Plating Solution, Acidic (DHS 132) (UCD 131) Spent Etching/Plating Solution, Alkaline (DHS 132) (UCD 132) Aqueous Solution with Heavy Metals (DHS 132) (UCD 141) Aqueous Solution with Other Metals (DHS 132) (UCD 142) Rinsewater and Wastewater (DHS 135) (UCD 511) Mud/Sediment and Water (DHS 431) (UCD 527)

o. Solid Residue from Wastewater Treatment Solids which includes:

Polymeric Resin Wastes (DHS 272) (UCD 201) Latex and Wastes (DHS 291) (UCD 262) Other Polymeric Materials and Wastes (DHS 272) (UCD 203 Other Biological Wastes (DHS 322) (UCD 272) API Separator Sludge (DHS 222) (UCD 286) Other Wastewater Treatment Sludge (DHS 491)

p. solid Residue from Stormwater Runoff from Arcas on this Site used to Handle Wastes which includes:

unsewater and wastewater (DHS 491) (UCD 527) Mud/Sediment and Water (DHS 491) (UCD 527)

p. Solid Residue from Tank Bottom Sedments and Cleaning Solutions which includes:

Aqueous Solution With Less than 10.5 Organic Residue (DHS 134) (UCD 225) Aqueous Solution with Greater than 10% Organic Residue (DHS 133) (UCD 227)

Soil Contaminated with Petroleum Products (DIIS 611), provided that the volatule organic concentrations do not exceed Inperial Air Follution Control District or California Department of Health Services permit limits, and provided that the wastes are not flammable solids, or oxidizers (as defined in 49 CFR 173.150 and 151) or reactive, as defined in Section 66705, Title 22, of the California Administrative Code.

- s. Soils contaminated with inorganic or organic compounds where the concentration of the contaminating material does not exceed ten (10) times the total threshold limit concentrations (TTLC) listed in Sections 66699 (b) and (c), Title 22, of the California Administrative Code.
- t. Other solid wastes and quantities thereof, specifically approved by the Regional Board or, if of an emergency discharge nature, by the Executive Officer.
- 6. Manifests are to be utilized for hauling and disposal of all hazardous wastes, wherein the waste producer, hauler, and discharger will certify compliance with State regulations by documenting their proper handling of the wastes.
- 7. The discharger reports as follows: the SWMU is excavated thirty-three feet below existing grade. The excavated earth has been used to construct a levee or berm ten to twenty feet above existing ground surface around the SWMU. The SWMU is lined with a two-foot compacted clay liner which was tested by laboratory and field methods for its permeability and was found to have a permeability of less than 1×10^{-7} cm/sec., and a double synthetic liner system together with a leak detection system and a leachate collection and removal system. Each synthetic liner membrane will have a minimum thickness of 40 mils. The capacity of the SWMU is expected to be sufficient for four to six years. The SWMU will be constructed as follows in descending order over the entire unit, except as explained in items (a) and (c) below:
 - (a) <u>Protective Soil Cover</u>: A minimum 12-inch thick protective soil cover will be provided over SWMU bottom only.
 - (b) Geotextile: Mirafi 140N nonwoven needle-punched polypropylene fabric $\overline{60}$ mil thick and weight of 4.5 oz/yd², heat treated on one side. A continuous layer will be placed over the leachate collection system prior to placement of the soil cover. It will be placed with the heat treated side against the drainage net. A continuous geotextile layer will be used as a wrap around the drain rock and slotted pipe sections in the leachate collection and leak detection system.
 - (c) Leachate Collection System: A continuous Gundnet G-3 MDPE drainage net will be placed atop the completed 80 mil synthetic lining on the SWMU bottom only.
 - (d) <u>Primary Synthetic Liner</u>: A Gundle synthetic lining of 80 mil high density polyethylene (HDPE).
 - (e) Leak Detection System: A continuous Gundnet G-3 MDPE drainage net will be placed atop the completed 40 mil synthetic lining.
 - (f) Secondary Synthetic Liner: A Gundle synthetic lining of 40 mil HDPE.
 - (g) <u>Clay Liner</u>: A clay lining underneath the entire SWMU constructed in maximum compacted lifts of eight (8) inches to a total minimum thickness of two (2) feet, and which was tested by laboratory and field methods for its permeability.

- . Soils contaminated with inorganic or organic compounds where ine concentration of the contaminating material does not exceed ten (10) times the total threshold limit concentrations (TTLC) listed in Sections (68899 (b) and (c). Title 22, of the Chlifornia Administrative Code.
- t. Other solid wastes and quantities thereof, specifically approved by the Regional Bound or, if of an emergency discharge nature, by the Executive Officer.
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- The discharger reports as follows: the SWMU is excavated thirty-three fect below existing grade. The excavated earth has been used to construct a levee or berm ten to twenty feet above existing ground surface around the SWMU. The SWMU is lined with a two-foot compacted clay liner which was tested by laboratory and field methods for its permeability and was found to have a permeability of less than 1×10^{-2} cm/sec., and a double synthetic liner system together with a leak detection system and a leachate collection and removal system. Bach synthetic liner membrane will have a minimul thickness of 40 mils. The capacity of the SWMU is expected to be sufficient order over the entire unit, except as explained in items (a) and (c) below:
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 - b) <u>Geotextile</u>: Mirafi 140N nonwoven needle-punched polypropylene faorie 60 mil thick and weight of 4.5 oz/yd², heat treated on one side. A continuous layer will be placed over the leachate collection system prior to placement of the soil cover. It will be placed with the heat treated side against the drainage net. A continuous geotextile layer will be used as a wrap around the drain rock and slotted pipe sections in the leachate collection and leak detection system.
 - c) Leachate Collection System: A continuous Gundnet G-3 MDPE drainage net will be placed atop the completed 80 mil synthetic lining on the SWMU bottom only.
 - (d) Primary Synthetic Liner: A Guildle synthetic lining of 80 mil high density polyethylene (HDPE).
 - (e) Leak Detection System: A continuous Gund at G-3 MDPE drainage net will be placed atop the completed 40 mil synthetic lining.
 - (f) Secondary Synthetic Liner: A Gundle synthetic lining of 40 mil HDPE.
 - (g) <u>Clay Liner:</u> A clay lining underneath the entire SWHU constructed in maximum compacted lifts of eight (8) inches to a total minimum thickness of two (2) feet, and which was tested by laboratory and field methods for its permeability.

(h) Underlying Natural Clay: Natural clays underlie the entire SWMU.

- 8. The SWMU is designed to contain approximately 200,000 cubic yards of solid waste.
- 9. The completed SWMU, upon termination of use, shall be approximately 25 feet above the existing grade. The capped SWMU shall be graded to drain with a slope of about five (5) percent. The final cover shall be constructed as follows in descending order:
 - a. <u>Soil Cover</u>: A two-foot minimum thickness of soil cover as approved by the Executive Officer.
 - b. <u>Geotextile:</u> A 60 mil nonwoven needle-punched polypropylene geotextile with a weight of 4.5 oz/yd^2 to facilitate drainage and to help maintain the soil cover on slope.
 - c. Synthetic Cover Liner: A Gundle 40 mil HDPE synthetic liner.
 - d. <u>Clay Cover</u>: A one-foot minimum thickness of compacted clay with permeability of 1 x 10^{-7} cm/sec. or less.
 - e. Foundation: Compacted waste.

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- 10. The area outside of and immediately adjacent to the one (1) square mile site is vacant, uncultivated desert, sparsely vegetated, and sloping gently downward towards the northeast. The nearest dwelling is a farmhouse, approximately one mile to the east. The desert land at the site consists of shallow alluvial soils, underlain by interbedded clays, silts and silty sands. These materials are overconsolidated and the SWMU is immediately underlain by at least 10 to 20 feet of clay. The SWMU is set back 200 feet from all identified onsite geologic fault traces. Two (2) ground water aquifers have been identified at the site: a shallow, perched aquifer between 40 and 60 feet depth with a total dissolved solids concentration between 2400 and 3200 mg/l; and a deeper, confined aquifer between 70 to 85 feet depth, with a total dissolved solids concentration from 4800 to 5200 mg/l.
- 11. The May 1985 Design Report states as follows: the average annual rainfall is approximately three (3) inches, based on Crawford Ranch Station precipitation data. The estimated maximum annual precipitation is seven (7) inches based on historic data from the Brawley 2 SW Station. The average annual evaporation is approximately one hundred inches. The average evaporation is approximately 11.41 inches/month as measured on site using an evaporative pan with canal water and a stilling well recorder.
- 12. The principal drainage channel, which approximately bisects the site has been improved and is maintained to accommodate a projected Probable Maximum Precipitation Event (PMP) from upslope areas. The SWMU is to be set back 100 feet from the channel banks. Perimeter drainage is provided for a 100year flood. Drainage not in contact with waste material is being directed off-site. Potentially contaminated drainage will remain on-site.
- 13. Any leachate produced from the wastes discharged to the SWMU will be collected in lined sumps at the north and south ends of the landfill. The

(h) Underlying Matural Clay: Natural clays underlie the entire SWML.

- . The SWMU is designed to contain approximately 200,000 cubic yards of solid waste.
- The completed SWMU, upon termination of use, shall be approximately 23 feet above the existing grade. The capped SWMU shall be graded to drain with a slope of about five (5) percent. The final cover shall be constructed as follows in descending order:
 - a. Soil Cover: Actwo-foot minimum thickness of soil cover as approved by the Executive Officer.
 - Geotestile: A 50 mill nonwoven needle-punched polypropylane geotestile with a weight of 4.5 os/yd² to facilitate dr inage and to help maintain the soil cover on slope.
 - e. Synthetic Cover Liner: A Gundle 30 mil HDPE synthetic finer.
 - Clay Cover: A one-foot minimum thickness of compacted clay with permeability of 1 x 10⁻⁷ cm/sec. or less.
 - e. Foundation: Compacted waste.
- 9. The area outside of and immediately adjacent to the one (1) square mile site is vacant, uncultivated desert, sparsely vegetated, and sloping goally downward towards the northeast. The nearest dwolling is a farmhouse, approximately one mile to the east. The desert land at the site consists of shallow alluvial soils, underlain by interbedded clays, silts and silty sands. These materials are overconsolidated and the SWMU is immediately underlain by at least 10 20 feet of day. The SWMU is set back 200 feet from all identified one site geologic fault traces. Two (2) ground water aquifers have been identified and the site consists have been identified one at the site; a shallow, perched aquifer between 40 and 50 feet depth with set geologic fault traces. Two (2) ground water aquifers have been identified at the site; confined aquifer between 20 to 85 feet depth, with a total dissolved solids concentration between 20 to 85 feet depth, with a total dissolved solids concentration from -1800 to 5200-mg/d.
- 11. The May 1985 Design Report states as follows: the average annual rainfall is approximately three (3) inches, based on Crawford Ranch Station procipitation date. The estimated maximum annual precipitation is seven (7) inches based on historic data from the Brawley 2 SN Station. The average annual evaporation is approximately one hundred inches. The average evaporation is approximately inches/month as measured on site using a evaporative par with canal water and a stilling well recorder.
- 12. The principal drainage channel, which approximately bisects the site has been improved and is maintained to accommodate a projected Probable Maximum Precipitation Event (PMP) from upsiope areas. The SWMU is to be set back 100 feet from the channel banks. Perimeter drainage is provided for a 100year flood. Irrainage not in contact with waste material is being directed off-site. Potentially contaminated drainage will remain on-site.
- 13. Any leachate produced from the wastes discharged to the SWAD will be collected in lined sumps at the north and south ends of the landfill. The

sumps are incorporated into the double lined SWMU design. The two (2) synthetic liners will be separated by the leak detection system. The leachate will be pumped out, tested and discharged to appropriate on-site impoundments which are subject to waste discharge requirements in Regional Board Order No. 84-111.

14. The discharger reports the following as its Wind Dispersal of Wastes Prevention Program:

In order to prevent the wind dispersal of wastes from the landfill, the following procedure is to be implemented for receipt of solid wastes.

As part of the trucker receiving analysis, each load of waste to be placed into the landfill will be evaluated by truck receiving personnel as to the potential for the wastes to be dispersed by the wind. If in the judgment of the receiving personnel the waste could be dispersed by the wind, this information will be noted on the disposal location form.

Upon arrival at the landfill, the driver will deliver the disposal location form to the landfill operator. On a windy day (if the wind speed is greater than 20 mph as measured by the anemometer located at the office trailer), the waste will be immediately sprayed with a polymer type material upon disposition onto the working face of the landfill.

During landfill operations, if the landfill operator notes areas of powdery wastes or sees the movement of wastes by the wind, these areas will immediately be sprayed with the polymer material. Following the placement of the last load of wastes into the landfill (end of day), the working face of the landfill will be sprayed to prevent wind dispersal of wastes over night.

An adequate supply of polymer and application equipment will be maintained at the facility.

- 15. The site has not been demonstrated to meet the Class I siting criteria. In May 1985 an interagency field inspection of the excavated proposed SWMU was conducted. Due to secondary permeabilities that may be greater than 1×10^{-7} cm/sec. within the underlying clay formations, the interagency staff and IT Corporation concluded it has not been conclusively demonstrated that the site meets the geologic siting criteria prescribed in Subsection 2531(b)(1) of Subchapter 15, Chapter 3, Title 23 of the California Administrative Code.
- 16. The Regional Board considered the possibility of reworking the underlying clays to attain the prescriptive standards of Subsection 2531(b)(1) and found that it is:
 - (a) Unreasonably and unnecessarily burdensome and will cost substantially more than alternatives which meet the criteria in Subsection (b), and
 - (b) Impractical and will not promote attainment of applicable performance standards.

sumps are incorporated into the double lined SWMU design. The two (2) synthetic liners will be separated by the leak detection system. The leachate will be pumped out, tested and dischar red to appropriate on-site impoundments which are subject to waste discharge requirements in Regional Board Order No. 84-111.

 The discharger reports the following as its Wind Dispersal of Wastes Prevention Program: 4.1

In order to prevent the wind dispersal of wastes from the lendfill, the following procedure is to be implemented for receipt of solid wastes.

As part of the trucker receiving analysis, each load of waste to be placed into the landfill will be evaluated by truck receiving personnel as to the potential for the wastes to be dispersed by the wind. If in the judgment of the receiving personnel the waste could be dispersed by the wind, this information will be noted on the disposed location form.

Uponterrivel at the landfill, the driver will deliver the disposal location form to the landfill operator. On a windy day (if the wind speed is greater than 20 mph as measured by the anometer located at the office trailer), the waste will be immediately sprayed with a polymer type material upon disposition onto the working face of the landfill.

During landfill operations, if the landfill operator notes areas of powder, wastes or sees the movement of wastes by the wind, these areas will immediately be sprayed with the polymer material. Following the placement of the last load of wastes into the landfill (end of day), the working face of the landfill will be optaged to prevent wind dispersal of wastes over night.

An adequate supply of polymen and application equipment will be maintained at the facility.

- 5. The site has not been demonstrated to meet the Class I siting criteria. In May 1985 an interagency field inspection of the excavated proposed SWMU was conducted. Due to secondary permeabilities that may be greater than 1 x 10^{-7} cm/sec, within the underlying clay formations, the interagency staff and IT Corporation concluded it has not been conclusively demonstrated that the site meets the geologic siting criteria prescribed in Subsection 2531(b)(1) of Subchapter 15, Chapter 3, Title 23 of the California Administrative Code.
- 6. The Regional Board considered the possibility of reworking the underlying clays to attain the prescriptive standards of Subsection 2531(b)(1) and found that it is:
 - (a) Unreasonably and unnecessarily burdensome and will cost, substantially more than alternatives which meet the criteria in Subsection (b), and
 - (b) Impractical and will not promote attainment of applicable performance standards.

- 17. Although the site has not been demonstrated to meet the prescribed standards as stated in Subsection 2531(b)(1) of said Subchapter 15, the overconsolidated underlying clays provide a very suitable foundation upon which to develop a specific engineered alternative to the prescribed standard that would afford equivalent protection against water quality impairment, as is allowable under Subsections 2510(b) and (c) of said Subchapter 15.
- 18. The Regional Board has reviewed the specific engineered alternative submitted by the discharger as described in Finding No. 7 and finds that said alternative affords protection against water quality impairment equivalent to that which is required under Subsection 2531(b)(1); and in fact the engineered alternative includes three engineered liners instead of the minimum requirement of two liners.
- 19. The Water Quality Control Plan for the Colorado River Basin Region of California was adopted by the Regional Board on November 14, 1984. The Basin Plan contains water quality objectives for Imperial Hydrologic Unit.
- 20. The discharger has filed an operation and closure plan, and plans for financing site closure and long-term maintenance.
- 21. On August 13, 1980, Imperial County Planning Department adopted Environmental Impact Report No. 226-79 for this disposal site. Said EIR was updated on December 6, 1983, as "Final EIR for Amended CUP 457-80" (SCH #79090501(a)).
- 22. The Board has notified the discharger and interested agencies and persons of its intent to review and possibly adopt discharge requirements for the proposed discharges into said SWMU.
- 23. The Board in a public meeting heard and considered all comments pertaining to the discharge.
- 24. The IT Corporation representative stated at the Regional Board's regular meeting on November 12, 1980, that, in accordance with the letter of the Department of Health Services dated October 10, 1980, extremely hazardous wastes, and wastes containing volatile toxic substances in excess of ten (10) percent by weight, will not be accepted for disposal.

IT IS HEREBY ORDERED, IT Corporation shall comply with the following:

A. Discharge Specifications

- 1. Neither the treatment nor the discharge of wastes shall create a pollution or a nuisance as defined in Division 7 of the California Water Code.
- 2. Waste materials shall not be discharged outside the proposed new SWMU shown on Attachment "A".
- 3. The SWMU shall be protected from any washout or erosion of wastes or covering material, and from inundation, which could occur as a result of floods having a predicted frequency of a 100-year return period as set forth in the current edition of the California Administrative Code, Title 23, Chapter 3, Subchapter 15.

- 7. Although the site has not been demonstrated to meet the prescribed standards as stated in Subsection 2531(b)(1) of said Subchapter 15, the overconsolidated underlying clays provide a very suitable foundation upon which to develop a specific engineered alternative to the prescribed standard that would afford equivalent protection against water quality impairment, as is allowable under Subsections 2510(b) and (c) of said Subchapter 15.
- 8. The Regional Board has reviewed the specific engineered alternative submitted by the discharger as described in Finding No. 7 and finds that said alternative affords protection against water quality impair nent equivalent to that which is required under Subsection 253 (a)(1); and in fact the engineered alternative includes three engineered liners instead of the minimum requirement of two liners.
- 19. The Water Quality Control Plan for the Colorado Civer Basin Region of California was adopted by the Regional Board on November 14, 1984. The Basin Plan contains water quality objectives for Imperial Hydrologic Unit.
- The discharger has filed an operation and closure plan, and plans for financing site closure and long-term maintenance.
- On August 13, 1980, Imperial County Planning Department adopted Environmental Inpact Report No. 226-79 for this disposal site. Said EIR was updated on December 6, 1983, as "Final LIR for Amended CUP 457-80" (SCH #79090501(a)).
- The Board has notified the discharger and interested agencies and persons of its intent to review and possibly adopt discharge requirements for the proposed discharges into said SWMU.
- The Board in a public meeting heard and considered all comments pertaining to the discharge.
- 4. The IT Corporation representative stated at the Regional Board's regular meeting on November 12, 1980, that, in accordance with the letter of the Department of Health Services dated October 10, 1980, extremely hazardous wastes, and wastes containing volatile toxic substances in excess of ten (10) percent by weight, will not be accepted for disposal.

PIS HERESY ORDERED. IT Corporation shall comply with the following:

. Discharge Specifications

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- . Neither the treatment nor the discharge of wastes shall create a pollution or a nuisance as defined in Division 7 of the California Water Code.
- Waste materials shall not be discharged outside the proposed new SWMU shown on Attachment "A".
- The SWMU shall be protected from any washout or erosion of wastes or eovering material, and from inundation, which could occur as a result of floods having a predicted frequency of a 100-year return period as set forth in the current edition of the California Administrative Code, Title 23, Chapter 3, Subchapter 15.

- 4. Only the following wastes may be discharged at this site without further approval of the Regional Board or the Executive Officer provided such discharge does not violate any other Discharge Specification, Prohibition, or Provision of this Order.
 - (a) Solid Residue from Geothermal Drilling Muds (DHS 521) (UCD 515)
 - (b) Solid Residue from Geothermal Workover and Cleanout Fluids (DHS 135) (UCD 144)
 - (c) Solid Residue from Geothermal Testing Fluids (DHS 135) (UCD 144)
 - (d) Solid Residue from Geothermal Brines and Residue which includes:

Brine (DHS 135) (UCD 145) Inorganic Solids (DHS 181) (UCD 151) Filter Press Cake/Sludge (DHS 491) (UCD 412)

- (e) Solid Residue from Geothermal Cooling Water Pretreatment Sludge (DHS 491) (UCD 456)
- (f) Solid Residue from Pretreatment Sludge (other than from geothermal sources) from Cooling Water Makeup (DHS 491) (UCD 456)
- (g) Solid Residue from Geothermal Cooling Tower and Boiler Blowdown Sludge (DHS 491) (UCD 456)
- (h) Solid Residue from Cooling Tower and Boiler Blowdown Sludge (other than from geothermal sources) (DHS 491) (UCD 456)
- (i) Solid Residue from Pesticide Container Rinsewater (DHS 231) (UCD 511)
- (j) Solid Residue from Outdated Pesticide Stock which includes:

Pesticide and Wastes (DHS 232) (UCD 241) Organic Solid with Halogens (DHS 351) (UCD 231) Organic Solid without Halogens (DHS 352) (UCD 232)

(k) Solid Residue from Pesticide Containers which includes:

Contaminated Equipment, Container (DHS 511/513) (UCD 532) Contaminated Rags, Pallets (DHS 512) (UCD 521)

(1) Solid Residue from Fluids Coincidental to Gas/Oil Exploration and Production which includes:

Brine (DHS 135) (UCD 145) Mixture of Oil, Mud/Sediment and Water (DHS 223) (UCD 283) Mixture of Oil, Gas with Water (DHS 223) (UCD 289) Drilling Mud (DHS 521) (UCD 515) (m) Solid Residue from Ballast Water after Oil Removal and Recycle which includes:

Aqueous Solution with Less than 10% Organic Residue (DHS 134) (UCD 225)

(n) Solid Residue from Neutralized Aqueous Solutions of Acidic or Alkaline Origin which includes:

Acidic Solution with Heavy Metals (DHS 111) (UCD 111) Acidic Solution with Other Metals and Non-Metals (DHS 112) (UCD 112)

Other Acidic Solutions (DHS 113) (UCD 113)

Alkaline Solution with Heavy Metals (DHS 121) (UCD 121) Alkaline Solution with Other Metals and Non-Metals

(DHS 122) (UCD 122)

Other Alkaline Solutions (DHS 123) (UCD 123) Spent Etching/Plating Solution, Acidic (DHS 132) (UCD 131) Spent Etching/Plating Solution, Alkaline (DHS 132) (UCD 132) Aqueous Solution with Heavy Metals (DHS 132) (UCD 141) Aqueous Solution Other Metals (DHS 132) (UCD 142) Rinsewater and Wastewater (DHS 135) (UCD 511) Mud/Sediment and Water (DHS 491) (UCD 527)

(o) Solid Residue from Wastewater Treatment Solids which includes:

Polymeric Resin Wastes (DHS 272) (UCD 261) Latex and Wastes (DHS 291) (UCD 262) Other Polymeric Materials and Wastes (DHS 272) (UCD 263) Other Biological Wastes (DHS 322) (UCD 272) API Separator Sludge (DHS 222) (UCD 286) Other Wastewater Treatment Sludge (DHS 491) (UCD 456)

(Sludge from the treatment of hazardous waste must be approved by the Executive Officer for disposal prior to discharge)

(p) Solid Residue from Stormwater Runoff from Areas on this Site Used to Handle Wastes which includes:

Rinsewater and Wastewater (DHS 135) (UCD 511) Mud/Sediment and Water (DHS 491) (UCD 527)

(q) Solid Residue from Tank Bottom Sediments and Cleaning Solutions which includes:

Aqueous Solution with Less than 10% Organic Residue (DHS 134) (UCD 225) Aqueous Solution with Greater than 10% Organic Residue

(DHS 133) (UCD 227)

Oily Tank Bottoms (DHS 241) (UCD 282)

Bottom Sediments (DHS 241) (UCD 523)

m Solid Residuo from Ballast Water after Oil Removal and Recycle which includes:

Aqueous Solution with Less than 10% Organic Residue (DHS 104) (UCD 225)

(a) Solid Residue from Neutralized Aqueous Solutions of Acidic or Alkaline Origin which includes:

Acidic Solution with Heavy Metals (DHS 111) (UCD 111) Acidic Solution with Other Metals and Non-Metals (DHS 112) (UCD 142)

Other Acidic Solutions (DHS 113) (UCD 113) Alkaline Solution with Heavy Metals (DHS 121) (UCD 121) Alkaline Solution with Other Metals and Non-Metals (DHS 122) (UCD 127)

Other Alkaline Solutions (DHS 123) (UCD 123) Spent Etching/Plating Solution, Acidie (DHS 132) (UCD 131) Spent Etching/Plating Solution, Alkaline (UHS 132) (UCD 132) Aqueous Solution with Heavy Metals (DHS 132) (UCD 141) Aqueous Solution Other Metals (DHS 132) (UCD 142) Rinsewater and Wastewater (DHS 135) (UCD 311) Mud/Sediment and Water (DHS 491) (UCD 527)

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Other Polymeric Materials and Wastes (DHS 272) (UCD 263) Other Elological Wastes (DHS 222) [UCD 272)

API Separator Sludge (DHS. 222) (UCD 286)

Sther Wastewater Treatment Studge (DHS 191) (UCD 456) (Sludge from the treatment of hazardous waste must be approved by the Executive Officer for disposal prior to discharge)

p) Solid Residue from Stormwater Runoff from Areas on this Site Used to Handle Wastes which includes:

> Rinsewater and Wastewater (DHS 135) (UCD 511) Mud/Sediment and Water (DHS 491) (UCD 523)

q) Solid Residue from Tank Bottom Sediments and Cleaning Solutions which includes:

Aqueous Solution with Less than 10% Organic Residue (D18 134) (UCD 225)

Aqueous Bolution with Greater than 10% Organic Residue (DHS 133) (UCD 227)

OILY LANK POLICUES (DERS 541) (DCD 282)

Sottom Sediments (DHS 241) (UCD 523))

- (r) Soils Contaminated with Petroleum Products (DHS 611).
- (s) Soils contaminated with inorganic or organic compounds where the concentration of the contaminating material does not exceed ten (10) times the total threshold limit concentrations (TTLC) listed in Sections 66699(b) and (c), Title 22 of the California Administrative Code.
- (t) Other solid wastes and quantities thereof, which are not in conflict with the approved Environmental Impact Report or Amendments thereto, and which are specifically approved by the Regional Board or, if of an emergency discharge nature, by the Executive Officer, in accordance with the following procedure:

Prior to authorization and discharge, a completed request for authorization to discharge a specific waste shall be received in the office of the Regional Board, and shall include at least the following information:

- 1. Type and quantity of waste.
- 2. Description of processes generating waste material.
- 3. Chemical analysis of representative samples of the material, as requested by the Executive Officer provided:

The chemical analyses submitted to the Regional Board for approval of a specific nonemergency type waste shall not be in excess of 60 days old. Updated analyses of each approved waste shall be submitted to the Board annually for review.

- 4. Information concerning the maximum concentrations of hazardous material in the waste, within at least a ten percent (10%) accuracy.
- 5. Other pertinent information concerning the waste, or as requested by the Executive Officer.
- 5. Authorization for discharge of a specific nonemergency type waste, not included in Specification No. 4a thru s, above may permit additional discharges of said waste without further approval unless subsequently rescinded by the Regional Board, or temporarily by the Executive Officer with subsequent submission for consideration by the Regional Board provided:
 - a. The Board authorization allows such additional discharges.
 - b. The concentration of any single hazardous constituent in a waste does not exceed the authorized concentrations by more than ten percent (10%) in any single load.

Authorization for the discharge of these wastes is conditional and may be withdrawn at any time by the Regional Board or Executive Officer. P. Soils Contaminated with Petroleum Products (DHS 611).

- 3) Soils contaminated with inorganic or organic compounds where the concentration of the contaminating material does not exceed ten (10) times the total threshold limit concentrations (TTLC) listed in Sections 06609(b) and (c), Title 22 of the California Administrative Code.
- Other solid wastes and quantities thereof, which are not in conflict with the approved Environmental Impact Report or Amendments thereto, and which are specifically approved by the degional Board or, if of an emergency discharge nature, by the Executive Officer, in accordance with the followin procedure:

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- 2. Description of processes generating waste material.
- Chemical analysis of representative samples of the material, as requested by the Executive Officer provided:

The chemical analyses submitted to the Regional Board for approval of a specific nonemergency type waste shall not be in excess of 60 days old. Updated analyses of each approved waste shall be submitted to the Board annually for review.

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 - Other pertinent information concerning the waste, or as requested by the Executive Officer.

 Authorization for discharge of a specific nonemergency type waste, not included in Specification No. 4a turu s, above may permit additional discharges of said waste without further approval unless subsequently respinded by the Regional Board, or temporarily by the Executive Officer with subsequent submission for consideration by the Regional Board provided:

a. The Board authorization allows such additional discharges.

b. The concentration of any single hazardous constituent in a waste does not exceed the authorized concentrations by more than ten percent (10%) in any single load.

Authorization for the discharge of these wastes is conditional and may be withdrawn at any time by the Regional Board or Executive Officer.

- 6. Waste material, and any water that has contacted the waste materials, shall be contained in those areas designated for the particular wastes.
- 7. Waste confinement barriers shall be protected and maintained to ensure their effectiveness.
- 8. All site facilities shall be designed and constructed to minimize damage to the graded foundation or to the structures which control leachate, surface drainage, erosion, and gas due to the maximum credible earthquake which appears to be reasonably expectable within a 100-year period.
- 9. There shall be no seepage or overflow from the SWMU.
- 10. Any ponded liquids observed in the SWMU or liquid observed in the sumps shall be removed immediately, analysed, and discharged to appropriate facilities.
- 11. The discharger shall prevent any transport of waste by wind from the SWMU through the active operational and post-closure periods, and to accomplish this shall use at least the procedures described in Finding No. 14, above.
- 12. The SWMU shall be designed and constructed specifically as described in Finding No. 7, above; and construction shall be in accordance with the current edition of the California Administrative Code, Title 23, Chapter 3, Subchapter 15, and shall be operated in accordance with future editions of said Subchapter 15.
- 13. The discharger shall place the waste in such a manner as to facilitate and maximize evaporative loss.
- 14. The discharger shall perform waste compatibility testing on all liner components. The data shall be submitted and approved by the Executive Officer prior to discharge of any wastes.
- 15. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.
- 16. Final disposition of any leachate produced from the wastes discharged to the SWMU shall conform to the specifications set forth in Finding No. 13 of this Order.
- 17. Upon closure, the completed SWMU shall be covered, graded, and maintained in conformance with the approved closure plan.
- 18. The SWMU shall receive a final inspection of construction by Regional Board staff, and approval by the Executive Officer, prior to discharge of wastes.
- 19. The discharger shall establish an irrevocable closure fund, or provide other accepted means, to ensure closure and post-closure maintenance of the SWMU.

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1 8.1

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- The discharger shall prevent any transport of waste by wind from the SWMU through the active operational and post-closure periods, and to accomplish this shall use at least the procedures described in Finding No. 14, above.
- 12. The SVMU shall be designed and constructed specifically as described in Finding No. 7, above; and construction shall be in accordance with the current edition of the California Administrative Code, Title 23, Chapter 3, Subchapter 15, and shall be operated in accordance with future editions of said Subchapter 15.
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- The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.
- 16. Final disposition of any leachate produced from the wastes discharged to the SWMU shall conform to the specifications set forth in Finding No. 13 of this Order.
- 17. Upon closure, the completed SWMU shall be covered, graded, and maintained in conformance with the approved closure plan.
- 8. The SWMU shall receive a final inspection of construction by Regional Board staff, and approval by the Executive Officer, prior to discharge of wastes.
- The discharger shall establish an irrevocable closure fund, or provide other accepted means, to ensure closure and post-closure maintenance of the SWMU.

B. Prohibitions

- 1. The discharge of waste to surface drainage courses or to ground water is prohibited.
- 2. Waste shall not be accepted for disposal if it contains a substance which is all of the following:
 - a. A material that has toxicity upon inhalation that causes it to be toxic as defined by criteria adopted by the California Department of Health Services, or as listed in Section 66680, Title 22, of the California Administrative Code with an indication that it is toxic; and
 - b. A substance with a vapor pressure exceeding one (1) mm mercury at 20° C; and
 - c. Present in the waste in a concentration greater than ten (10) percent by weight.
- 3. The placement of bulk liquid hazardous wastes or free liquid contained in hazardous wastes (whether or not absorbents have been added) in the SWMU is prohibited. The procedure for determination of free liquid in a hazardous waste shall be the standard EPA approved method contained in Attachment "B", appended hereto as a part of this Order.
- C. Provisions
 - 1. The discharger shall maintain a copy of this Order at the site to be available at all times to site operating personnel.
 - 2. Wastes which conform to the definition of extremely hazardous waste in Section 25115 of the Health and Safety Code, such as waste which contains a substance listed in Section 66685, Title 22, of the California Administrative Code shall not be accepted for disposal unless specifically approved by a written permit from the California Department of Health Services, and a written approval from the Regional Board.
 - 3. The discharger shall maintain a legible record using a reporting form approved by the Executive Officer, of the volume and type of each waste received at the site and the manner and location of disposal. The record shall be maintained for a period of not less than ten (10) years, with the records to be forwarded to the Board when disposal operations cease.
 - 4. The discharger shall update the operation plan when material changes in operations are made; and a letter shall be submitted to the Regional Board annually indicating compliance or noncompliance with said plan. The plan shall conform to future editions of Title 23, Chapter 3, Subchapter 15, of the California Administrative Code.
 - 5. The discharger shall comply with "Monitoring and Reporting Program No. 85-80" and future revisions thereto, as specified by the Executive Officer.

B. Prohibitions

- The discharge of wasts to surface drainage courses or to ground water is prohibited.
- . Waste shall not be accepted for disposal if it contains a substance which is all of the following:
 - as defined by criteria adopted by the California Department of Health Services, or as Jisted in Section 66630, Title 22, of the California Administrative Code with an indication that it is forcin and
 - 24 A substance with a vapor pressure exceeding one (1) mm mercury at 20°C; and
 - c. Present in the waste in a concentration greater than tan (10) percent
- 4. The placement of bulk liquid hazardous wastes or free liquid contained in hazardous wastes (whether or not absorbents have been added) in the SWUU is prohibited. The procedure for determination of free liquid in a hazar lone waste shall be the standard EPA approved method contained in Attachment "B", appended hereto as a part of this Order.

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- The discharger shall update the operation plan when material changes in operations are made; and a letter shall be submitted to the Regional Board annually indicating compliance or noncompliance with said plan. The plan shall conform to future editions of Title 33, Chapter 3, Subchapter 15, of the California Administrative Code.
- The discharger shall comply with "Monitoring and Reporting Program No. 25-80" and future revisions thereto, as specified by the Executive Officer.

- 6. This Board Order is specifically in regards to discharges into the above specified waste management unit. Prior to the beginning of construction of any additional waste management unit for discharge of the above listed wastes, the discharger shall submit a completed report of proposed discharge and receive an adopted Order by the Regional Board.
- 7. A detailed ground water and vadose zone detection monitoring program shall be submitted and approved by the Executive Officer. The monitoring program shall include specifications of well placement, screening, procedures for well development, as well as a detailed sampling and analyses plan. The monitoring program shall also be in full compliance with Article 5 of Subchapter 15, Chapter 3, Title 23 of the California Administrative Code and shall be implemented and operating prior to deposition of wastes.
- 8. As the ground water and vadose zone detection monitoring data becomes available, the Regional Board directs the Executive Officer to submit water quality protection standards for consideration by the Regional Board, as per Subsection 2552(a) of Subchapter 15, Chapter 3, Title 23 of the California Administrative Code.
- 9. At least ten (10) days prior to discharge of any wastes into the SWMU, the discharger shall submit to the Regional Board a technical report showing the construction of the SWMU, and a certificate signed by a California Registered Civil Engineer or a Certified Engineering Geologist stating that the SWMU is constructed to meet the requirements of this Order.
- 10. Prior to any change of ownership of these facilities/operations, the discharger shall transmit a copy of this Order to the succeeding owner/operator, and forward a copy of the transmittal letter to this Board.
- 11. This Order does not authorize violation of any federal, state, or local laws or regulations.
- 12. The discharger shall maintain an impermeable road surface on the Garvey Road bridge at the Westside Main Canal to prevent any materials on the bridge from entering the canal. The discharger shall maintain a surface water drainage system to prevent lateral runoff from the bridge or its approaches from entering the Westside Main Canal.

I, Arthur Swajian, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on November 20, 1985.

alettun. Executive Officer

This Board Order is specifically in regards to discharges into the above specified wasta management unit. Prior to the beginning of construction of any additional waste management unit for discharge of the above listed wastes, the discharger shall submit a completed report of proposed dischargo and receive an adopted Order by the Regional Board.

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9. At least ten (10) days prior to discharge of any wastes into the SWNU, the discharger shall submit to the Regional Board a technical report showing the construction of the SWNU, and a certificate signed by a California Registered Civil Engineer or a Certified Engineering Geologist stating, that the SWMU is constructed to meet the requirements of this Order.

10. Prior to any change of ownership of those facilities/operations, the discharger shall transmit a copy of this Order to the succeeding owner/operator, and forward a copy of the transmittal letter to this Board.

 This Order does not authorize violation of any federal, state, or local laws or regulations.

2. The discharger shall maintain an impormedule road surface on the Garvey Road bridge at the Westaide Main Ganal to prevent any materials on the bridge from entering the conal. The discharger shall maintain a surface water drainage system to prevent lateral runoff from the origine or its approaches from entering the Westside Main Canal.

I. Arthur Swajian, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Mater Quality Control Board, Colorado River Basin Region, on November 20, 1335.

1.8

TO ORDER NO. 85-80 OF THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION



SITE PLAN



IT CORPORATION IMPERIAL VALLEY FACILITY HAZARDOUS WASTE LANDFILL

* Added by Regional Board staff to clarify Site Plan which is a copy from the Design Report, May 1985.



Attachment B Order No. 85-80 Page 1 of 2

ATTACHMENT B

U. S. ENVIRONMENTAL PROTECTION AGENCY METHOD 9095

PAINT FILTER LIQUIDS TEST

1.0 Scope and Application

- 1.1 This method is used to determine the presence of free liquid in a representative sample of waste.
- 1.2 The method is used to determine compliance with Prohibition B.3. of Order No. 85-80.

2.0 Summary of Method

2.1 A predetermined amount of material is placed in a paint filter. If any portion of the material passes through and drops from the filter within the 5 minute test period, the material is deemed to contain free liquid.

3.0 Interferences

3.1 Filter media was observed to separate from the filter cone on exposure to alkaline materials. This development causes no problem if the sample is not disturbed.

4.0 Apparatus and Materials

- 4.1 Conical paint filter mesh number 60. Available at local paint stores such as Sherwin-Williams and Glidden for an approximate cost of \$0.07 each.
- 4.2 Glass Funnel (If the paint filter, with the waste, cannot sustain its weight on the ring stand, then a fluted glass funnel or glass funnel with a mouth large enough to allow at least one inch of filter mesh to protrude should be used to support the filter. The funnel is to be fluted or have a large open mount in order to support the paint filter yet not interfere with the movement, to the graduated cylinder, of the material that passes through the filter mesh.)
- 4.3 Ring Stand and Ring, or Tripod.
- 4.4 Beaker or Graduated Cylinder, 100 ml.

5.0 Reagents

5.1 None.

Attachment B Order No. 85-89 Page 1- of 2

ATTACHMENT'S

U. S. ENVILONMENTAL PROTECTION AGENCY METHOD 3035

PAINT FILTER LIQUIDS TEST

.0 Scope and Application

- This method is used to determine the presence of free liquid in a representative sample of waste.
- 1.2 The method is used to determine compliance with Prohibition B.3. of Order No. 85-80.

.0 Summary of Method

2.1 A predetermined amount of material is placed in a paint filter. If any portion of the material passes through and drops from the filter within the 5 minute test period, the material is deemed to contain free liquid.

.0 Interferences

3.1 Filter media was observed to separate from the filter cone on exposure to alkaline materials. This development causes no problem if the sample is not disturbed.

.0 Apparatus and Materials

- Conical paint filter mesh number 60. Available at local paint stores such as Sherwin-Williams and Glidden for an approximate cost of \$0.07 each.
- 4.2 Glass Funnel (If the paint filter, with the waste, cannot sustain its weight on the ring stand, then a fluted glass funnel or glass funnel with a mouth large enough to allow at least one inch of filter mesh to protrude should be used to support the filter. The funnel is to be fluted or have a large open mount in order to support the paint filter yet not interfere with the movement, to the graduated cylinder, of the material that passes through the filter mesh.)
 - 4.3 Ring Stand and Ring, or Tripod.

4.4 Beaker or Graduated Cylinder, 100 ml.

:0 Reagents

5.1 None.

Revised 3/35

Attachment B (cont) Page 2 of 2

9095/2

6.0 Sample Collection, Preservation, and Handling

- 6.1 All samples must be collected according to the directions in Section One of U.S. Environmental Protection Agency guidance document SW-846.
- 6.2 A 100 ml or 100g representative sample is required for the test. (If it is not possible to obtain a sample of 100 ml or 100g that is sufficiently representative of the waste, the analyst may use larger size samples in multiples of 100 ml or 100g, i.e., 200, 300, 400 ml or g. However, when larger samples are used, analysts shall divide the sample into 100 ml or 100g portions and test each portion separately. If any portion contains free liquid the entire sample is considered to have free liquid. If the percent of free liquid in the sample needs to be determined, it shall be the average of the subsamples tested.)

7.0 Procedure

- 7.1 Assemble test appartus.
- 7.2 Place sample in the filter. A funnel may be used to provide support for the paint filter.
- 7.3 Allow sample to drain for 5 minutes into the graduated cylinder.
- 7.4 If any portion of the test material collects in the graduated cylinder in the 5 minute period, then the material is deemed to contain free liquid for purposes of Prohibition B.3. of Order No. 85-80.

8.0 Quality Control

8.1 Duplicate samples should be analyzed on a routine basis.

Revised 3/85

Attachment B (cont) Page 2 of 2

0 Sample Collection, Preservation, and Handling

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Procedure

- Assemble test appartus.
- 7.2 Place sample in the filter. A funnel may be used to provide support for the paint filter.
 - 7.3 Allow sample to drain for 5 minutes into the graduated cylinder.
- 7.4 If any portion of the test material collects in the graduated cylinder in the 5 minute pariod, then the material is deemed to contain free liquid for purposes of Prohibition B.3. of Order No. 85-80.

0 Quality Control

Dublicate samples should be analyzed on a routine basis.

Revised 3/85

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD **COLORADO RIVER BASIN REGION**

MONITORING AND REPORTING PROGRAM NO. 85-80 (Rev. 11/20/85) FOR IT CORPORATION IMPERIAL VALLEY CLASS I SOLID WASTE MANAGEMENT UNIT Imperial County

Site Location: Section 16, T13S, R12E, SBB&M

MONITORING

IT Corporation shall report monitoring data to the Regional Board in accordance with the following schedule:

Waste Monitoring A.

- 1. The following information shall be reported monthly to the Regional Board concerning each load of waste accepted for disposal into the SWMU:
 - a. Quantity of each waste received in gallons, tons, or cubic yards.
 - b. Type of waste received classified by the general categories of wastes which have been approved for disposal into the SWMU.
 - Manifest number of the waste. c.
 - d. Date of receipt of the waste.
- 2. The discharger shall annually submit a report concerning each approved waste other than emergency discharges which the discharger plans to continue to accept for disposal into the SWMU. Said report shall contain the following information:
 - An analysis of each waste not in excess of 60 days old. If no waste a. of a specific type has been received during the last 60 days of the calendar year, the discharger shall submit the latest available analysis.
 - A statement concerning the maximum anticipated concentrations of b. hazardous constituents in the waste.
 - Anticipated maximum quantity of material to be discharged on a c. Jugerceded 25-80, 12-22-87 quarterly basis.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

MONIFORING AND REPORTING PROGRAM NO. 85-80 (Rev. 11/20/85) Por It Corporation MPERIAL VALLEY CLASS I SOLID WASTE MANAGEMENT UNIT

Imperial County 2

Site Location: Section 16, T13S, R12F, SBH&M

MONITORING

T Corporation shall report monitoring data to the Regional Board in accordance with the following schedule:

- . Wasto Monitoring
- The following information shall be reported monthly to the Regional Board concerning each load of waste accepted for disposal into the SW-IU:
 - a. Quantity of each waste received in rallons, tons, or cubic varias.
 - Type of waste received classified by the general categories of wastes which have been approved for disposal into the SWHU.
 - c. Manifest number of the waste.
 - d. Date of receipt of the waste.
- The discharger shall annually submit a report concerning each approved waste other than emergency discharges which the discharger plans to continue to accept for disposal into the SWAIU. Said report shall contain the following information:
 - An analysis of each waste not in excess of 60 days old, if no waste of a specific type has been received during the last 60 days of the calendar year, the discharger shall submit the latest available analysis.
 - A statement concerning the maximum anticipated concentrations of hazardous constituents in the waste.
 - Anticipated maximum quantity of material to be discharged on a quarterly basis.

B. Solid Waste Management Unit Monitoring

- 1. The discharger shall inspect the SWMU containment structure weekly and report the results of the inspections monthly. The report shall contain the following information:
 - a. Detection of liquid and quantity thereof within the leachate collection system, and disposition of any leachate recovered.
 - b. Detection of liquid and quantity thereof within the leak detection system, and disposition of any leachate recovered.
 - c. Any apparent seepage from the SWMU structure.
 - d. General condition of the berms.
 - e. Steps taken to correct any problems found during inspection, and when taken.
 - f. A map showing the location and depth of waste placed within the SWMU since the last report, at five (5) foot depth intervals.
 - g. Physical tests (subject to approval by the Executive Officer) performed at five (5) foot depth intervals, by certified personnel, on the waste to demonstrate the stability of the fill with respect to final closure.
- 2. On an annual basis the leak detection system and leachate collection and removal system shall be tested to ensure they are operating properly. The discharger shall report the results of this testing in the annual report.

C. Ground Water Monitoring

1. Upon completion of each approved ground water monitoring well, the discharger shall obtain four (4) consecutive quarterly samples and analyze for the following constituents:

Constituent

Unit

*pH *Specific Conductance	pH Units micromhos/cm
Total Dissolved Solids (TDS)	mg/l
*Total Organic Carbon (TOC)	mg/l
Chemical Oxygen Demand (COD)	mg/l
*Total Organic Halogen	mg/l
Total Hardness	mg/l
Total Alkalinity	mg/l
Calcium (Ca)	mg/l
Sodium (Na)	mg/l
Lithium (Li)	mg/l

*Four replicate analyses to be performed on each sample.

Solid Waste Management Unit Monitoring

- The discharger shall inspect the SWAU containment structure weekly and report the results of the inspections monthly. The report shall contain the following information:
 - Detection of liquid and quantity thereof within the leachate collection system, and disposition of any leachate recovered.
 - Detection of liquid and quantity thereof within the leak detection system, and disposition of any leachate recovered.
 - . Any apparent scepage from the SWMU structure.
 - d. General condition of the berms.
 - Steps taken to correct any problems found during inspection, and when taken.
- A map showing the location and depth of waste placed within the SWMU since the last report, at five (5) fool depth intervals.
- Physical tests (subject to approval by the Executive Officer) performed at five (5) foot depth intervals, by certified personnel, on the waste to demonstrate the stability of the fill with respect to final closure.
- On an annual basis the leak detection system and leachate collection and removal system shall be tested to ensure they are operating properly. The discharger shall report the results of this testing in the annual report

Ground Nater Monitoring

Upon completion of each approved ground water monitoring well, the discharger shall obtain four (4) consecutive quarterly samples and analyze for the following constituents:

Unit	
pH Units micromhos/o mg/l mg/l mg/l mg/l	
I\gm I\gm I\gm I\gm I\gm I\gm	

rour replicate analyses to be performed on each sample.

Constituent	Unit
Potassium (K)	mg/l
Chloride (Cl)	mg/l
Fluoride (F)	mg/1
Nitrate (NO ₃ as N)	mg/l
Nitrite (NO ₂ as N)	mg/l
Phosphate, Total (P)	mg/l
Sulfate (SO ₄)	mg/1
Sulfide (S)	mg/l
Oil and Grease	mg/1
Total Phenols	mg/l
Radium	pCi/l
Gross Alpha	pCi/l
Gross Beta	mrem/year
Coliform Bacteria (Total)	MPN/100 ml
Arsenic (As)	mg/l
Barium (Ba)	mg/l
Cadmium (Cd)	mg/l
Chromium (Cr)	mg/l
Copper (Cu)	mg/l
Iron (Fe)	mg/l
Lead (Pb)	mg/l
Manganese (Mn)	mg/l
Mercury (Hg)	mg/l
Nickel (Ni)	mg/l
Selenium (Se)	mg/l
Silver (Ag)	mg/l
Zinc (Zn)	mg/1
Endrin	mg/l
Lindane	mg/l
Methoxychlor	mg/l
Toxaphene	mg/l
2,4-D	mg/l
2,4,5-TP Silvex	mg/l

2. Upon completion of the sampling program described in Section C.1., representative samples of ground water shall be obtained from each ground water monitoring well and analyzed for the following constituents:

Constituent	Unit	Frequency
Total Dissolved Solids	mg/l	Quarterly
Specific Conductance	micromhos/cm	Quarterly
pH	pH Units	Quarterly
Total Organic Carbon	mg/l	Quarterly
Total Organic Halogen	mg/l	Quarterly
Total Alkalinity as CaCO ₃	mg/l	Quarterly
Phosphate, Total (P)	mg/l	Quarterly
Calcium (Ca)	mg/l	Quarterly
Sodium (Na)	mg/l	Quarterly
Potassium (K)	mg/l	Quarterly
Magnesium (Mg)	mg/l	Quarterly

	Phosphate, Total (P)
f\gm	Sulfate (SOA)
	Cotal Phenols
NiDa	
	Dross Alpha
nrem/ve	
	Coliform Bacteria (Total)
	(muimond)
	Manganago (Mn)
	Selenium (Se)
	(pA) nevii
	Reventance

Upon completion of the sampling program described in Section C.I., representative samples of ground water shall be obtained from each ground water monitoring well and analyzed for the following constituents:

requency	JINU	Constituent
Quarterly Quarterly Ounterly		Total Dissolved Solids Specific Conductance off
Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly	mg/1 mg/1 mg/1 mg/1 mg/1 mg/1 mg/1 mg/1	Total Organic Carbon Total Organic Halogen Total Alkalinity as CaCO3 Phosphate, Total (P) Calcium (Ca) Sodium (Na) Hotussitum (R)

-8-
Constituent	Unit	Frequency
Manganese (Mn)	mg/l	Quarterly
Iron (Fe)	mg/l	Quarterly
Lithium (Li)	mg/l	Quarterly
Chloride (Cl)	mg/l	Quarterly
Fluoride (F)	mg/l	Quarterly
Sulfate (SO ₄)	mg/l	Quarterly
Nitrate (NO ₃ as N)	mg/l	Quarterly
Nitrite (NO ₂ as N)	mg/l	Quarterly
Total Phenols	mg/l	Quarterly

- 3. The following additional information shall be reported for each sampling of the ground water monitoring wells:
 - a. Date of Sampling.

- b. Date well purged prior to sampling.
- c. Estimate of volume of water purged from each well prior to sampling.
- d. Static water level in well prior to pumping (MSL Elevation).
- e. Date static water level measurement taken.
- f. Temperature
- 4. The velocity and direction of the uppermost aquifer shall be determined quarterly, and submitted as part of the quarterly ground water monitoring report outlined in Section C.2.

D. Vadose Zone Monitoring

Vadose zone monitoring samples shall be obtained from each lysimeter and analyzed for the following constituents:

Constituent	Unit	Frequency
Sodium (Na)	mg/l	Quarterly
Potassium (K)	mg/l	Quarterly
Lithium (Li)	mg/l	Quarterly
Arsenic (As)	mg/l	Quarterly
Chromium (Cr)	mg/l	Quarterly
Chloride (Cl)	mg/l	Quarterly
Fluoride (F)	mg/l	Quarterly
Total Dissolved Solids	mg/l	Quartelry
pH	pH Units	Quarterly

-4-

E. Flood Protection Facilities

The discharger shall inspect the SWMU and all internal and external flood protection facilities at least quarterly and following each storm which generates any stormwater flow through the diversion channels. The results of inspections shall be reported quarterly to the Regional Board. If significant damage to the flood protection facilities are found, the discharger shall report immediately to the Regional Board by telephone and transmit by letter the following information:

- 1. Location and extent of damage.
- 2. Type and quantity of wastes threatened, if any.
- 3. Interim measures to be taken to assure that no wastes are discharged from the SWMU.
- 4. Time schedule for repairs.
- F. The discharge of any waste other than those allowed in the specifications, or any other noncompliance with the operations plan, shall be reported to the Board immediately upon the discharger becoming aware that said violation(s) occurred, along with an explanation of how the correction of said violation(s) will be accomplished expeditiously.
- G. A report shall be submitted annually summarizing progress and compliance, and including any noncompliance, with the operations plan.

REPORTING

Monitoring reports shall be submitted to the Regional Board as follows:

Monthly reports - by the 15th day of the following month. Quarterly reports - by January 15, April 15, July 15, and October 15 of each year. Annual reports - by January 15 of each year.

Forward monitoring reports to:

California Regional Water Quality Control Board Colorado River Basin Region 73-271 Highway 111, Suite 21 Palm Desert, CA 92260

Executive f/ficer

November 20, 1985 Date

Flood Protection Facilities

The discharger shall inspect the SWMU and all internal and external flood protection facilities at least quarterly and following each storm which generates any stormwater flow through the diversion channels. The results of inspections shall be reported quarterly to the Regional Board. If significant damage to the flood protection facilities are form 1, the discharger shall report immediately to the Regional Board by telephone and transmit, by letter the following information:

Location and extant of damage.

2. Type and quantity of wastes threatened, if any,

 Interim measures to be taken to assure that no wastes are discharged from the SWALU.

L. Time schedule for repairs.

The discharge of any waste other than those allowed in the specifications, or any other noncompliance with the operations plan, shall be reported to the Board immediately upon the discharger becoming aware that said violation(s) occurred, along with an explanation of how the correction of said violation(s) will be accomplished expeditionally.

A report shall be submitted annually summarizing progress and compliance, and including any noncompliance, with the operations plan.

REPORTING

Monitoring reports shall be submitted to the Regional Board as follows:

Monthly reports - by the 15th day of the following nonth. Quarterly reports - by January 15, April 16, July 15, and October 15 of each

Innual reports - by January 15 of each year.

Forward monitoring reports to:

California Regional Water Quality Control Board Colorado River Basin Region 73-271 Highway 111, Suite 21 Palm Desert CA 92200

Brecutive Officer

November 20, 1985

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

BOARD MEETING OF NOVEMBER 20, 1985 EL CENTRO

ERRATA SHEET FOR AGENDA ITEM 15 - IT CORPORATION

ORDER NO. 85-80

Description

4 Finding No. 5(t), Line 1, should read:

5

Page

"...other solid wastes and quantities thereof ... "

4 Finding No. 7, Line 4, should read:

"The SWMU is lined with a two-foot compacted clay liner which was tested by laboratory and field methods for its permeability and was found to have a permeability of less than 1×10^{-7} cm/sec., and a double synthetic liner system..."

4 Finding No. 7(g), Line 3, should read:

"of two (2) feet, and which was tested by laboratory and field methods for its permeability."

5 Finding No. 10, Line 5, should read:

"soils, underlain by interbedded clays, silts, and silty sands. These materials are overconsolidated, and the SWMU is immediately underlain by at least 10 to 12 feet of clay. The SWMU is set back 200 feet..."

6 Add new Finding No. 14, as follows:

"The discharger reports the following as its Wind Dispersal of Wastes Prevention Program:

In order to prevent the wind dispersal of wastes from the landfill, the following procedure is to be implemented for receipt of solid wastes.

As part of the truck receiving analysis, each load of waste to be placed into the landfill will be evaluated by truck receiving personnel as to the potential for the wastes to be dispersed by the wind. If in the judgment of the receiving personnel the waste could be dispersed by the wind, this information will be noted on the disposal location form. Upon arrival at the landfill, the driver will deliver the disposal location form to the landfill operator. On a windy day (if the wind speed is greater than 20 mph as measured by the anemometer located at the office trailer), the waste will be immediately sprayed with a polymer type material upon disposition onto the working face of the landfill.

During landfill operations, if the landfill operator notes areas of powdery wastes or sees the movement of wastes by the wind, these areas will immediately be sprayed with the polymer material. Following the placement of the last load of wastes into the landfill (end of day), the working face of the landfill will be sprayed to prevent wind dispersal of wastes over night.

An adequate supply of polymer and application equipment will be maintained at the facility."

6 & 7 Renumber Findings No. 14 thru 23, to read "15 thru 24".

9 Specification No. 4(o) (top of page), add a fourth line, to read:

"(Sludge from the treatment of liquid hazardous waste must be approved by the Executive Officer for disposal prior to discharge)"

10 Specification No. 11, line 2, should read:

"through the active operational and post-closure periods; and to accomplish this shall use at least the procedures described in Finding No. 14, above."

10 Specification No. 12 should read:

"the SWMU shall be designed and constructed specifically as described in Finding No. 7, above; and construction shall be in accordance with the current..."

10 Delete Specification No. 13.

1. ···

- 11 Revise Specifications No. 14 thru 20, to read "13 thru 19".
- 11 (New) Specification No. 17 (formally 18), should read:

"Upon closure, the completed SWMU shall be covered, graded, and maintained in conformance with the approved closure plan."

11 Delete (New) Specification No. 19 (formally 20)

Upon arrival at the landful, the driver will defiver the disposal location form to the landful operator. On a windy day (if the wind speed is greater, than 20 mph as measured by the anonometar located at the office trailer), the waste will be immediately sprayed with a polymer type material upon disposition onto the working face of the landful.

During landfill operations, if the landfill operator notes areas of powdery works or sees the movement of wastes by the wind, these areas will immediately be sprayed with the polymer material. Following the placement of the last load of wastes into the landfill (and of day), the working face of the landfill will be sprayed to provent wind dispersal of wastes over night.

An adequate supply of polymer and application equipment will be maintained at the facility."

Renumber Findings No. 14 thru 23, to read "15 thru 24".

Specification No. 1(o) (top of page), add a fourth line, to read:

"(Studge from the treatment of liquid hazardous waste must be approved by the Executive Officer for disposal prior to discharge)"

Specification No. 11, line 2, should read:

"through the active operational and post-closure periods; and to accomplish this shall use at least the procedures described in Pinding No. 14, above."

Specification No. 12 should read:

"the SWMU shall be designed and constructed specifically as described in Pinding Not 7, above; and construction shall be in accordance with the current..."

Delete Specification No. 13.

Revise Specifications No. 14 thru 20, to read "13 thru 19".

(New) Specification No. 17 (formally 13), should read:

Upon closure, the completed SWMU shall be covered, graded, and haintained in conformance with the approved closure plan."

Delete (New) Specification No. 19 (formally 20)

11 Add (New) Specification No. 19, to read:

"The discharger shall establish an irrevocable closure fund, or provide other acceptable means, to ensure closure and post-closure maintenance of the SWMU."

12 Add New Provision No. 9 as follows:

"At least ten (10) days prior to discharge of any wastes into the SWMU, the discharger shall submit to the Regional Board a technical report showing the construction of the SWMU, and a certificate signed by a California Registered Civil Engineer or a certified Engineering Geologist stating that the SWMU is constructed to meet the requirements of this Order."

12 Add New Provision No. 10 as follows:

"Prior to any change of ownership of these facilities/operations, the discharger shall transmit a copy of this Order to the succeeding owner/operator, and forward a copy of the transmittal letter to this Board."

12

10

Renumber Provisions No. 9 and 10, to read "11 and 12".

MONITORING AND REPORTING PROGRAM NO. 85-80 (Rev.11/8/85)

4

Add new Section C.4., as follows:

"The velocity and direction of the uppermost aquifer shall be determined quarterly, and the information shall be submitted as part of the quarterly ground water monitoring report outlined in Section C.2.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 85-80 (Rev. 12-22-87) FOR IT CORPORATION IMPERIAL VALLEY CLASS I SOLID WASTE MANAGEMENT UNIT Imperial County

Site Location: Section 16, T13S, R12E, SBB&M

MONITORING

IT Corporation shall report monitoring data to the Regional Board in accordance with the following schedule:

A. Waste Monitoring

- 1. The following information shall be reported monthly to the Regional Board concerning each load of waste accepted for disposal into the SWMU:
 - a. Quantity of each waste received in gallons, tons, or cubic yards.
 - b. Type of waste received classified by the general categories of wastes which have been approved for disposal into the SWMU.
 - c. Manifest number of the waste.
 - d. Date of receipt of the waste.
- 2. The discharger shall annually submit a report concerning each approved waste other than emergency discharges which the discharger plans to continue to accept for disposal into the SWMU. Said report shall contain the following information:
 - a. An analysis of each waste not in excess of 60 days old. If no waste of a specific type has been received during the last 60 days of the calendar year, the discharger shall submit the latest available analysis.
 - b. A statement concerning the maximum anticipated concentrations of hazardous constituents in the waste.
 - c. Anticipated maximum quantity of material to be discharged on a quarterly basis.

B. Solid Waste Management Unit Monitoring

19

- 1. The discharger shall inspect the SWMU containment structure weekly and report the results of the inspections monthly. The report shall contain the following information:
 - a. Detection of liquid and quantity thereof within the leachate collection system, and disposition of any leachate recovered.
 - b. Detection of liquid and quantity thereof within the leak detection system, and disposition of any leachate recovered.
 - c. Any apparent seepage from the SWMU structure.
 - d. General condition of the berms.
 - e. Steps taken to correct any problems found during inspection, and when taken.
 - f. A map showing the location and depth of waste placed within the SWMU since the last report, at five (5) foot depth intervals.
 - g. Physical tests (subject to approval by the Executive Officer) performed at five (5) foot depth intervals, by certified personnel, on the waste to demonstrate the stability of the fill with respect to final closure.
- 2. On an annual basis the leak detection system and leachate collection and removal system shall be tested to ensure they are operating properly. The discharger shall report the results of this testing in the annual report.

C. Ground Water Monitoring

1. Upon completion of each approved ground water monitoring well, the discharger shall obtain four (4) consecutive quarterly samples and analyze for the following constituents:

Constituent

Unit

*pH	oH Units
*Specific Conductance	micromhos/cm
Total Dissolved Solids (TDS)	mg/1
*Total Organic Carbon (TOC)	mg/l
Chemical Oxygen Demand (COD)	mg/l
*Total Organic Halogen	mg/l
Total Hardness	mg/l
Total Alkalinity	mg/l
Calcium (Ca)	mg/l
Sodium (Na)	mg/l
Lithium (Li)	mg/l

*Four replicate analyses to be performed on each sample.

Constituent	Unit
Potassium (K)	mg/1
Chloride (Cl)	mg/l
Fluoride (F)	mg/l
Nitrate (NO3 as N)	mg/l
Nitrite $(NO_2 \text{ as } N)$	mg/l
Phosphate, Total (P)	mg/l
Sulfate (SO ₄)	mg/l
Sulfide (S)	mg/l
Oil and Grease	mg/l
Total Phenols	mg/l
Radium	pCi/l
Gross Alpha	pCi/l
Gross Beta	mrem/year
Coliform Bacteria (Total)	MPN/100 ml
Arsenic (As)	mg/1
Barium (Ba)	mg/l
Cadmium (Cd)	mg/1
Chromium (Cr)	mg/l
Copper (Cu)	mg/1
Iron (Fe)	mg/l
Lead (Pb)	mg/l
Manganese (Mn)	mg/l
Mercury (Hg)	mg/l
NICKEI (NI)	mg/1
Selenium (Se)	mg/l
Suver (Ag)	mg/l
ZINC (ZN)	mg/l
Lindene	mg/l
Lindane	mg/l
Toxochono	mg/l
	mg/l
2,45 TD Silver	mg/l
2,3,0-IF SHVEX	mg/l

2. Upon completion of the sampling program described in Section C.1., representative samples of ground water shall be obtained from each ground water monitoring well and analyzed for the following constituents:

Constituent	Unit	Frequency
Total Dissolved Solids	mg/l	Quarterly
pH	oH Units	Quarterly
Total Organic Carbon	mg/l	Quarterly
Total Organic Halogen	mg/l	Quarterly
Phosphate, Total (P)	mg/l	Quarterly
Calcium (Ca)	mg/l	Quarterly
Sodium (Na)	mg/l	Quarterly
Magnesium (Mg)	mg/l	Quarterly
	mg/1	Quarterly

Constituent	Unit	Frequency		
Manganese (Mn) Iron (Fe) Lithium (Li) Chloride (Cl) Fluoride (F) Sulfate (SO ₄) Nitrate (NO ₃ as N) Nitrite (NO ₂ as N) Total Phenols	mg/l mg/l mg/l mg/l mg/l mg/l mg/l	Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly		

- 3. The following additional information shall be reported for each sampling of the ground water monitoring wells:
 - a. Date of Sampling.
 - b. Date well purged prior to sampling.
 - c. Estimate of volume of water purged from each well prior to sampling.
 - d. Static water level in well prior to pumping (MSL Elevation).
 - e. Date static water level measurement taken.
 - f. Temperature
- 4. The velocity and direction of the uppermost aquifer shall be determined quarterly, and submitted as part of the quarterly ground water monitoring report outlined in Section C.2.

D. Vadose Zone Monitoring

- 1. Vadose zone monitoring shall be conducted quarterly using a neutron probe. Measurements shall be obtained from a minimum of four neutron probe access tube locations (subject to approval by the Executive Officer). Quarterly vadose zone monitoring reports shall include the following information:
 - a. Moisture measurements from each access tube presented separately in graphic form for the current quarter.
 - b. Raw data collected from each access tube and copies of all field notes for current guarter.
 - c. A single graphic display for each access tube showing all previous moisture measurements, including measurements from current quarter.
 - d. Location map showing all access tube locations.

E. Flood Protection Facilities

The discharger shall inspect the SWMU and all internal and external flood protection facilities at least quarterly and following each storm which generates any stormwater flow through the diversion channels. The results of inspections shall be reported quarterly to the Regional Board. If significant damage to the flood protection facilities are found, the discharger shall report immediately to the Regional Board by telephone and transmit by letter the following information:

- 1. Location and extent of damage.
- 2. Type and quantity of wastes threatened, if any.
- 3. Interim measures to be taken to assure that no wastes are discharged from the SWMU.
- 4. Time schedule for repairs.
- F. The discharge of any waste other than those allowed in the specifications, or any other noncompliance with the operations plan, shall be reported to the Board immediately upon the discharger becoming aware that said violation(s) occurred, along with an explanation of how the correction of said violation(s) will be accomplished expeditiously.
- G. A report shall be submitted annually summarizing progress and compliance, and including any noncompliance, with the operations plan.

REPORTING

Monitoring reports shall be submitted to the Regional Board as follows:

Monthly reports - by the 15th day of the following month. Quarterly reports - by January 15, April 15, July 15, and October 15 of each year. Annual reports - by January 15 of each year.

Forward monitoring reports to:

California Regional Water Quality Control Board Colorado River Basin Region 73-271 Highway 111, Suite 21 Palm Desert, CA 92260

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Executive Officer

December 22, 1987 Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

ORDER NO. 85-80

WASTE DISCHARGE REQUIREMENTS FOR IT CORPORATION IMPERIAL VALLEY CLASS I SOLID WASTE MANAGEMENT UNIT Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

- 1. IT Corporation (hereinafter also referred to as the discharger), 23456 Hawthorne Boulevard, Suite 220, Torrance, California, 90505, submitted a Report of Waste Discharge dated May 28, 1985, with subsequent additions.
- 2. The discharger's operations are contained in its privately owned 640-acre tract comprising Section 16, T13S, R12E, SBB&M. A site plan of said Section 16 is shown in Attachment "A" appended hereto as a part of this Order. Approximately 300 to 400 acres of this section appear to be developable for industrial waste disposal areas with a total capacity expectancy of 30 to 50 years beginning from about the year 1980.
- 3. The discharger is currently discharging industrial waste to surface impoundments No. 3, 5, 8, and 9 under Order No. 84-111 adopted by the Regional Board on November 14, 1984. These impoundments are located in the E 1/2, SE 1/4 of said Section 16. The discharger is also proposing to construct and operate a solid waste management unit (SWMU) for hazardous waste on approximately seven (7) acres in the E 1/2, NE 1/4 of said Section 16. For purposes of this Order, solid waste will be defined as waste that contains no free liquid as prescribed in Prohibition B.3. of this Order. The additional findings, and the waste discharge requirements contained herein are designed to control waste discharges into said SWMU leaving intact Order No. 84-111 as to the discharges of wastes specified therein.
- 4. The SWMU is located at the former site of the geothermal brine surface impoundments (MS-1 and MS-2), which were used for storage of geothermal brines transported from Imperial Thermal Products' basins adjacent to Salton Sea. The site has been totally redesigned, and as such constitutes a new waste management unit which is subject to the prescriptive standards and regulations prescribed in Subchapter 15, Chapter 3, Title 23 of the California Administrative Code.
- 5. Solid wastes requested to be discharged to said SWMU are categorized below, showing also the Department of Health Services (DHS) waste categorization numbers from Table III of the National Uniform Hazardous Waste Manifest. Since each DHS shipping number includes broad categories of wastes within which are included the specific wastes allowed to be discharged under this Order, the DHS numbers are to be considered as a reference only. The wastes are further defined by University of California at Davis (UCD) numbers as set forth in its publication titled "Hazardous Wastes Generation and Off-Site Disposal patterns', dated 1981.

Rylackel by 5-80 (11/20/85

- a. Solid Residue from Geothermal Drilling Muds (DHS 521) (UCD 515)
- b. Solid Residue from Geothermal Workover and Cleanout Fluids (DHS 135) (UCD 144)
- c. Solid Residue from Geothermal Testing Fluids (DHS 135) (UCD 144)
- d. Solid Residue from Geothermal Brines and Residue which includes:

Brine (DHS 135) (UCD 145) Inorganic Solids (DHS 181) (UCD 151) Filter Press Cake/Sludge (DHS 491) (UCD 412)

- e. Solid Residue from Geothermal Cooling Water Pretreatment Sludge (DHS 491) (UCD 456)
- f. Solid Residue from Pretreatment Sludge (other than from geothermal sources) from Cooling Water Makeup (DHS 491) (UCD 456)
- g. Solid Residue from Geothermal Cooling Tower and Boiler Blowdown Sludge (DHS 491) (UCD 456)
- h. Solid Residue from Cooling Tower and Boiler Blowdown Sludge (other than from geothermal sources) (DHS 491) (UCD 456)
- i. Solid Residue from Pesticide Container Rinsewater (DHS 231) (UCD 511)
- j. Solid Residue from Outdated Pesticide Stock which includes:

Pesticide and Wastes (DHS 232) (UCD 241) Organic Solid With Halogens (DHS 351) (UCD 231) Organic Solid Without Halogens (DHS 352) (UCD 232)

k. Solid Residue from Pesticide Containers which includes:

Contaminated Equipment, Container (DHS 511/513) (UCD 532) Contaminated Rags, Pallets (DHS 512) (UCD 521)

1. Solid Residue from Fluids Coincidental to Gas/Oil Exploration and Production which includes:

Brine (DHS 135) (UCD 145) Mixture of Oil, Mud/Sediment and Water (DHS 223) (UCD 283) Mixture of Oil, Gas with Water (DHS 223) (UCD 289) Drilling Mud (DHS 521) (UCD 515)

m. Solid Residue from Ballast Water after Oil Removal and Recycle which includes:

Aqueous Solution with Less than 10% Organic Residue (DHS 134) (UCD 225)

- . Solid Residue from Geothermal Drilling Muds (DHS 521) (UCD 515)
- Solid Residue from Geothermal Workover and Cleanout Fluids (DHS 135) (UCD 144)
 - :. Solid Residue from Geothermal Testing Fluids (DHS 135) (UCD 144)
 - 1. Solid Residue from Geothermal Brines and Residue which includes:

Brine (DHS 135) (UCD 145) Inorganic Solids (DHS 181) (UCD 151) Filter Press Cake/Sludge (DHS 491) (UCD 412)

- e. Solid Residue from Geothermal Cooling Water Pretreatment Sludge (DBS 491) (UCD 456)
- . Solid Residue from Pretreatment Sludge (other than from geothermal sources) from Cooling Water Makeup (DHS 491) (UCD 455)
- . Solid Residue from Geothermal Cooling Tower and Boller Blowdown Sludge (DHS 491) (UCD 456)
- Solid Residue from Cooling Tower and Boiler Blowdown Sludge (other than from geothermal sources) (DHS 491) (UCD 456)
- Solid Residue from Pesticide Container Rinsewater (DHS 231) (UCD 511)
 - Solid Residue from Outdated Pesticide Stock which includes:

Pesticide and Wastes (DHS 232) (UCD 241) Organic Solid With Halogens (DHS 351) (UCD 231) Organic Solid Without Halogens (DHS 352) (UCD 232)

. Solid Residue from Pesticide Containets which includes:

Contaminated Equipment, Container (DHS 511/513) (UCD 532) Contaminated Racs, Pallets (DHS 512) (UCD 521)

. Solid Residue from Fluids Coincidental to Gas/Oil Exploration and Production which includes:

Brine (DHS 135) (UCD 145) Mixture of Oil, Mud/Sediment and Water (DHS 223) (UCD 283) Mixture of Oil, Gas with Water (DHS 223) (UCD 289) Drilling Mud (DHS 521) (UCD 515)

m. Solid Residue from Ballast Water after Oil Removal and Recycle which includes:

Aqueous Solution with Less than 10% Organic Residue (DHS 134) (UCD 225)

n. Solid Residue from Neutralized Aqueous Solutions of Acidic or Alkaline Origin which includes:

Acidic Solution with Heavy Metals (DHS 111) (UCD 111) Acidic Solution with Other Metals and Non-Metals (DHS 112) (UCD 112)

Other Acidic Solutions (DHS 113) (UCD 113) Alkaline Solution with Heavy Metals (DHS 121) (UCD 121) Alkaline Solution with Other Metals and Non-Metals (DHS 122) (UCD 122)

Other Alkaline Solutions (DHS 123) (UCD 123) Spent Etching/Plating Solution, Acidic (DHS 132) (UCD 131) Spent Etching/Plating Solution, Alkaline (DHS 132) (UCD 132) Aqueous Solution with Heavy Metals (DHS 132) (UCD 141) Aqueous Solution with Other Metals (DHS 132) (UCD 141) Rinsewater and Wastewater (DHS 135) (UCD 511) Mud/Sediment and Water (DHS 491) (UCD 527)

o. Solid Residue from Wastewater Treatment Solids which includes:

Polymeric Resin Wastes (DHS 272) (UCD 261) Latex and Wastes (DHS 291) (UCD 262) Other Polymeric Materials and Wastes (DHS 272) (UCD 263) Other Biological Wastes (DHS 322) (UCD 272) API Separator Sludge (DHS 222) (UCD 286) Other Wastewater Treatment Sludge (DHS 491) (UCD 456)

p. Solid Residue from Stormwater Runoff from Areas on this Site used to Handle Wastes which includes:

Rinsewater and Wastewater (DHS 135) (UCD 511) Mud/Sediment and Water (DHS 491) (UCD 527)

q. Solid Residue from Tank Bottom Sediments and Cleaning Solutions which includes:

Aqueous Solution with Less than 10% Organic Residue (DHS 134) (UCD 225)
Aqueous Solution with Greater than 10% Organic Residue (DHS 133) (UCD 227)
Oily Tank Bottoms (DHS 241) (UCD 282)
Bottom Sediments (DHS 241) (UCD 523)

r. Soil Contaminated with Petroleum Products (DHS 611), provided that the volatile organic concentrations do not exceed Imperial Air Pollution Control District or California Department of Health Services permit limits, and provided that the wastes are not flammable solids, or oxidizers (as defined in 49 CFR 173.150 and .151) or reactive, as defined in Section 66705, Title 22, of the California Administrative Code. . Solid Residue from Neutralized Aqueous Solutions of Acidic or Alkaine Origin which includes:

> Acidic Solution with Heavy Vistals (DHS 111) (UCD 111) Acidic Solution with Other Metals and Non-Metals (DHS 113) (IRCD 113)

Other Acidic Solutions (DHS 113) (UCD 113) Alkaline Solution with Heavy Metals (DHS 121) (UCD 121) Alkaline Solution with Other Metals and Non-Metals

Other Alkaline Solutions (DHS 123) (UCD 123) Spent Etching/Plating Solution, Acidic (DHS 132) (UCD 131) Spent Etching/Plating Solution, Alkaline (DHS 132) (UCD 132) Aqueous Solution with Heavy Metals (DHS 132) (UCD 141) Aqueous Solution with Other Metals (DHS 132) (UCD 142) Rinsewater and Wastewater (DHS 135) (UCD 511) Mud/Sediment and Wastewater (DHS 431) (UCD 527)

Solid Residue from Wastewater Treatment Solids which includes:

Polymeric Resin Wastes (DHS 272) (UOD 261) Latex and Wastes (DHS 291) (UCD 262) Other Polymeric Materials and Wastes (DHS 272) (UCD 263) Other Biological Wastes (DHS 322) (UCD 272) API Separator Sludge (DHS 222) (UCD 286) Other Wastewater Treatment Sludge (DHS 491) (UCD 456)

. Solid Residue from Stormwater Runoff from Areas on this Site used to Handle Wastes which includes:

> Rinsewater and Wastewater (DHS 135) (UCD 511) Mud/Scdiment and Water (DHS 491) (UCD 527)

g. Solid Residue from Tank Bottom Sediments and Cleaning Solutions which includes:

> (queous Solution with Less than 10% Organic Residue (DHS 134) (UCD 225)

Aqueous Solution with Greater than 10% Organic Residue (DHS 133) (UCD 227)

Oily Tank Bottoms (DHS 241) (UCD 282) Bottom Sediments (DHS 241) (UCD 523)

Soil Contaminated with Petroleum Products (DHS 611), provided that the volatile organic concentrations do not exceed Imperial Air Pollution Control District or California Department of Health Services permit limits, and provided that the wastes are not flammable solids, or oxidizers (as defined in 49 CPR 173,150 and .151) or reactive, as defined in Section 65705. Title 22, of the California Administrative Code. s. Soils contaminated with inorganic or organic compounds where the concentration of the contaminating material does not exceed ten (10) times the total threshold limit concentrations (TTLC) listed in Sections 66699 (b) and (c), Title 22, of the California Administrative Code.

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- t. Other wastes and quantities thereof, specifically approved by the Regional Board or, if of an emergency discharge nature, by the Executive Officer.
- 6. Manifests are to be utilized for hauling and disposal of all hazardous wastes, wherein the waste producer, hauler, and discharger will certify compliance with State regulations by documenting their proper handling of the wastes.
- 7. The discharger reports as follows: the SWMU is excavated thirty-three feet below existing grade. The excavated earth has been used to construct a levee or berm ten to twenty feet above existing ground surface around the SWMU. The SWMU is lined with a two-foot compacted clay liner having a permeability 1 x 10^{-7} cm/sec. or less and a double synthetic liner system together with a leak detection system and a leachate collection and removal system. Each synthetic liner membrane will have a minimum thickness of 40 mils. The capacity of the SWMU is expected to be sufficient for four to six years. The SWMU will be constructed as follows in descending order over the entire unit, except as explained in items (a) and (c) below:
 - (a) <u>Protective Soil Cover</u>: A minimum 12-inch thick protective soil cover will be provided over SWMU bottom only.
 - (b) Geotextile: Mirafi 140N nonwoven needle-punched polypropylene fabric 60 mil thick and weight of 4.5 oz/yd², heat treated on one side. A continuous layer will be placed over the leachate collection system prior to placement of the soil cover. It will be placed with the heat treated side against the drainage net. A continuous geotextile layer will be used as a wrap around the drain rock and slotted pipe sections in the leachate collection and leak detection system.
 - (c) Leachate Collection System: A continuous Gundnet G-3 MDPE drainage net will be placed atop the completed 80 mil synthetic lining on the SWMU bottom only.
 - (d) <u>Primary Synthetic Liner</u>: A Gundle synthetic lining of 80 mil high density polyethylene (HDPE).
 - (e) <u>Leak Detection System</u>: A continuous Gundnet G-3 MDPE drainage net will be placed atop the completed 40 mil synthetic lining.
 - (f) Secondary Synthetic Liner: A Gundle synthetic lining of 40 mil HDPE.
 - (g) <u>Clay Liner</u>: A clay lining underneath the entire SWMU constructed in maximum compacted lifts of eight (8) inches to a total minimum thickness of two (2) feet with a permeability of 1×10^{-7} cm/sec. or less.

(h) Underlying Natural Clay: Natural clays underlie the entire SWMU.

- 8. The SWMU is designed to contain approximately 200,000 cubic yards of solid waste.
- 9. The completed SWMU, upon termination of use, shall be approximately 25 feet above the existing grade. The capped SWMU shall be graded to drain with a slope of about five (5) percent. The final cover shall be constructed as follows in descending order:
 - a. <u>Soil Cover</u>: A two-foot minimum thickness of soil cover as approved by the Executive Officer.
 - b. <u>Geotextile:</u> A 60 mil nonwoven needle-punched polypropylene geotextile with a weight of 4.5 oz/yd^2 to facilitate drainage and to help maintain the soil cover on slope.
 - c. Synthetic Cover Liner: A Gundle 40 mil HDPE synthetic liner.
 - d. <u>Clay Cover</u>: A one-foot minimum thickness of compacted clay with permeability of 1 x 10^{-7} cm/sec. or less.
 - e. Foundation: Compacted waste.

- 10. The area outside of and immediately adjacent to the one (1) square mile site is vacant, uncultivated desert, sparsely vegetated, and sloping gently downward towards the northeast. The nearest dwelling is a farmhouse, approximately one mile to the east. The desert land at the site consists of shallow alluvial soils, underlain by partially indurated clayey silts and silty sands. The SWMU is set back 200 feet from all identified on-site geologic fault traces. Two (2) ground water aquifers have been identified at the site: a shallow, perched aquifer between 40 and 60 feet depth with a total dissolved solids concentration between 2400 and 3200 mg/l; and a deeper, confined aquifer between 70 to 85 feet depth, with a total dissolved solids concentration from 4800 to 5200 mg/l.
- 11. The May 1985 Design Report states as follows: the average annual rainfall is approximately three (3) inches, based on Crawford Ranch Station precipitation data. The estimated maximum annual precipitation is seven (7) inches based on historic data from the Brawley 2 SW Station. The average annual evaporation is approximately one hundred inches. The average evaporation is approximately 11.41 inches/month as measured on site using an evaporative pan with canal water and a stilling well recorder.
- 12. The principal drainage channel, which approximately bisects the site has been improved and is maintained to accommodate a projected Probable Maximum Precipitation Event (PMP) from upslope areas. The SWMU is to be set back 100 feet from the channel banks. Perimeter drainage is provided for a 100year flood. Drainage not in contact with waste material is being directed off-site. Potentially contaminated drainage will remain on-site.
- 13. Any leachate produced from the wastes discharged to the SWMU will be collected in lined sumps at the north and south ends of the landfill. The sumps are incorporated into the double lined SWMU design. The two (2)

synthetic liners will be separated by the leak detection system. The leachate will be pumped out, tested and discharged to appropriate on-site impoundments which are subject to waste discharge requirements in Regional Board Order No. 84-111.

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- 14. The site has not been demonstrated to meet the Class I siting criteria. In May 1985 an interagency field inspection of the excavated proposed SWMU was conducted. Due to secondary permeabilities that may be greater than 1×10^{-7} cm/sec. within the underlying clay formations, the interagency staff and IT Corporation concluded it has not been conclusively demonstrated that the site meets the geologic siting criteria prescribed in Subsection 2531(b)(1) of Subchapter 15, Chapter 3, Title 23 of the California Administrative Code.
- 15. The Regional Board considered the possibility of reworking the underlying clays to attain the prescriptive standards of Subsection 2531(b)(1) and found that it is:
 - (a) Unreasonably and unnecessarily burdensome and will cost substantially more than alternatives which meet the criteria in Subsection (b), and
 - (b) Impractical and will not promote attainment of applicable performance standards.
- 16. Although the site has not been demonstrated to meet the prescribed standards as stated in Subsection 2531(b)(1) of said Subchapter 15, the overconsolidated underlying clays provide a very suitable foundation upon which to develop a specific engineered alternative to the prescribed standard that would afford equivalent protection against water quality impairment, as is allowable under Subsections 2510(b) and (c) of said Subchapter 15.
- 17. The Regional Board has reviewed the specific engineered alternative submitted by the discharger as described in Finding No. 7 and finds that said alternative affords protection against water quality impairment equivalent to that which is required under Subsection 2531(b)(1); and in fact the engineered alternative includes three engineered liners instead of the minimum requirement of two liners.
- 18. The Water Quality Control Plan for the Colorado River Basin Region of California was adopted by the Regional Board on November 14, 1984. The Basin Plan contains water quality objectives for Imperial Hydrologic Unit.
- 19. The discharger has filed an operation and closure plan, and plans for financing site closure and long-term maintenance.
- 20. On August 13, 1980, Imperial County Planning Department adopted Environmental Impact Report No. 226-79 for this disposal site. Said EIR was updated on December 6, 1983, as "Final EIR for Amended CUP 457-80" (SCH #79090501(a)).
- 21. The Board has notified the discharger and interested agencies and persons of its intent to review and possibly adopt discharge requirements for the proposed discharges into said SWMU.

- 22. The Board in a public meeting heard and considered all comments pertaining to the discharge.
- 23. The IT Corporation representative stated at the Regional Board's regular meeting on November 12, 1980, that, in accordance with the letter of the Department of Health Services dated October 10, 1980, extremely hazardous wastes, and wastes containing volatile toxic substances in excess of ten (10) percent by weight, will not be accepted for disposal.
- IT IS HEREBY ORDERED, IT Corporation shall comply with the following:
- A. Discharge Specifications

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- 1. Neither the treatment nor the discharge of wastes shall create a pollution or a nuisance as defined in Division 7 of the California Water Code.
- 2. Waste materials shall not be discharged outside the proposed new SWMU shown on Attachment "A".
- 3. The SWMU shall be protected from any washout or erosion of wastes or covering material, and from inundation, which could occur as a result of floods having a predicted frequency of a 100-year return period as set forth in the current edition of the California Administrative Code, Title 23, Chapter 3, Subchapter 15.
- 4. Only the following wastes may be discharged at this site without further approval of the Regional Board or the Executive Officer provided such discharge does not violate any other Discharge Specification, Prohibition, or Provision of this Order.
 - (a) Solid Residue from Geothermal Drilling Muds (DHS 521) (UCD 515)
 - (b) Solid Residue from Geothermal Workover and Cleanout Fluids (DHS 135) (UCD 144)
 - (c) Solid Residue from Geothermal Testing Fluids (DHS 135) (UCD 144)
 - (d) Solid Residue from Geothermal Brines and Residue which includes:

Brine (DHS 135) (UCD 145) Inorganic Solids (DHS 181) (UCD 151) Filter Press Cake/Sludge (DHS 491) (UCD 412)

- (e) Solid Residue from Geothermal Cooling Water Pretreatment Sludge (DHS 491) (UCD 456)
- (f) Solid Residue from Pretreatment Sludge (other than from geothermal sources) from Cooling Water Makeup (DHS 491) (UCD 456)
- (g) Solid Residue from Geothermal Cooling Tower and Boiler Blowdown Sludge (DHS 491) (UCD 456)

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(h) Solid Residue from Cooling Tower and Boiler Blowdown Sludge (other than from geothermal sources) (DHS 491) (UCD 456)

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- (i) Solid Residue from Pesticide Container Rinsewater (DHS 231) (UCD 511)
- (j) Solid Residue from Outdated Pesticide Stock which includes:

Pesticide and Wastes (DHS 232) (UCD 241) Organic Solid with Halogens (DHS 351) (UCD 231) Organic Solid without Halogens (DHS 352) (UCD 232)

(k) Solid Residue from Pesticide Containers which includes:

Contaminated Equipment, Container (DHS 511/513) (UCD 532) Contaminated Rags, Pallets (DHS 512) (UCD 521)

(1) Solid Residue from Fluids Coincidental to Gas/Oil Exploration and Production which includes:

Brine (DHS 135) (UCD 145) Mixture of Oil, Mud/Sediment and Water (DHS 223) (UCD 283) Mixture of Oil, Gas with Water (DHS 223) (UCD 289) Drilling Mud (DHS 521) (UCD 515)

(m) Solid Residue from Ballast Water after Oil Removal and Recycle which includes:

Aqueous Solution with Less than 10% Organic Residue (DHS 134) (UCD 225)

(n) Solid Residue from Neutralized Aqueous Solutions of Acidic or Alkaline Origin which includes:

> Acidic Solution with Heavy Metals (DHS 111) (UCD 111) Acidic Solution with Other Metals and Non-Metals (DHS 112) (UCD 112)

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Other Alkaline Solutions (DHS 123) (UCD 123) Spent Etching/Plating Solution, Acidic (DHS 132) (UCD 131) Spent Etching/Plating Solution, Alkaline (DHS 132) (UCD 132) Aqueous Solution with Heavy Metals (DHS 132) (UCD 141) Aqueous Solution Other Metals (DHS 132) (UCD 142) Rinsewater and Wastewater (DHS 135) (UCD 511) Mud/Sediment and Water (DHS 491) (UCD 527)

(o) Solid Residue from Wastewater Treatment Solids which includes:

Polymeric Resin Wastes (DHS 272) (UCD 261) Latex and Wastes (DHS 291) (UCD 262) Other Polymeric Materials and Wastes (DHS 272) (UCD 263) Other Biological Wastes (DHS 322) (UCD 272) API Separator Sludge (DHS 222) (UCD 286) Other Wastewater Treatment Sludge (DHS 491) (UCD 456)

(p) Solid Residue from Stormwater Runoff from Areas on this Site Used to Handle Wastes which includes:

Rinsewater and Wastewater (DHS 135) (UCD 511) Mud/Sediment and Water (DHS 491) (UCD 527)

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(q) Solid Residue from Tank Bottom Sediments and Cleaning Solutions which includes:

Aqueous Solution with Less than 10% Organic Residue (DHS 134) (UCD 225)
Aqueous Solution with Greater than 10% Organic Residue (DHS 133) (UCD 227)
Oily Tank Bottoms (DHS 241) (UCD 282)
Bottom Sediments (DHS 241) (UCD 523)

- (r) Soils Contaminated with Petroleum Products (DHS 611).
- (s) Soils contaminated with inorganic or organic compounds where the concentration of the contaminating material does not exceed ten (10) times the total threshold limit concentrations (TTLC) listed in Sections 66699(b) and (c), Title 22 of the California Administrative Code.
- (t) Other wastes and quantities thereof, which are not in conflict with the approved Environmental Impact Report or Amendments thereto, and which are specifically approved by the Regional Board or, if of an emergency discharge nature, by the Executive Officer, in accordance with the following procedure:

Prior to authorization and discharge, a completed request for authorization to discharge a specific waste shall be received in the office of the Regional Board, and shall include at least the following information:

- 1. Type and quantity of waste.
- 2. Description of processes generating waste material.
- 3. Chemical analysis of representative samples of the material, as requested by the Executive Officer provided:

The chemical analyses submitted to the Regional Board for approval of a specific nonemergency type waste shall not be in excess of 60 days old. Updated analyses of each approved waste shall be submitted to the Board annually for review. 4. Information concerning the maximum concentrations of hazardous material in the waste, within at least a ten percent (10%) accuracy.

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- 5. Other pertinent information concerning the waste, or as requested by the Executive Officer.
- 5. Authorization for discharge of a specific nonemergency type waste, not included in Specification No. 4a thrus, above may permit additional discharges of said waste without further approval unless subsequently rescinded by the Regional Board, or temporarily by the Executive Officer with subsequent submission for consideration by the Regional Board provided:
 - a. The Board authorization allows such additional discharges.
 - b. The concentration of any single hazardous constituent in a waste does not exceed the authorized concentrations by more than ten percent (10%) in any single load.

Authorization for the discharge of these wastes is conditional and may be withdrawn at any time by the Regional Board or Executive Officer.

- 6. Waste material, and any water that has contacted the waste materials, shall be contained in those areas designated for the particular wastes.
- 7. Waste confinement barriers shall be protected and maintained to ensure their effectiveness.
- 8. All site facilities shall be designed and constructed to minimize damage to the graded foundation or to the structures which control leachate, surface drainage, erosion, and gas due to the maximum credible earthquake which appears to be reasonably expectable within a 100-year period.
- 9. There shall be no seepage or overflow from the SWMU.
- 10. Any ponded liquids observed in the SWMU or liquid observed in the sumps shall be removed immediately, analysed, and discharged to appropriate facilities.
- 11. The discharger shall prevent any transport of waste by wind from the SWMU through the active operational and post-closure periods.
- 12. The SWMU shall be designed and constructed in accordance with the current edition of the California Administrative Code, Title 23, Chapter 3, Subchapter 15, and shall be operated in accordance with future editions of said Subchapter 15.
- 13. The discharger shall perform such testing as is determined to be required pursuant to the policy of the State Water Resources Control Board with regard to Sections 2541(c) and 2595(g)(2) of the California Administrative Code, Title 23, Chapter 3, Subchapter 15 prior to the completion of the facility or deposition of wastes.

- 14. The discharger shall place the waste in such a manner as to facilitate and maximize evaporative loss.
- 15. The discharger shall perform waste compatibility testing on all liner components. The data shall be submitted and approved by the Executive Officer prior to discharge of any wastes.
- 16. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.
- 17. Final disposition of any leachate produced from the wastes discharged to the SWMU shall conform to the specifications set forth in Finding No. 13 of this Order.
- 18. Upon closure, the final composite cover shall not be less than three (3) feet thick and shall conform to specifications submitted and approved by the Executive Officer.
- 19. The SWMU shall receive a final inspection of construction by Regional Board staff, and approval by the Executive Officer, prior to discharge of wastes.
- 20. The completed SWMU shall be covered, graded, and maintained in conformance with the closure plan approved by the Regional Board.
- **B.** Prohibitions
 - 1. The discharge of waste to surface drainage courses or to ground water is prohibited.
 - 2. Waste shall not be accepted for disposal if it contains a substance which is all of the following:
 - a. A material that has toxicity upon inhalation that causes it to be toxic as defined by criteria adopted by the California Department of Health Services, or as listed in Section 66680, Title 22, of the California Administrative Code with an indication that it is toxic; and
 - b. A substance with a vapor pressure exceeding one (1) mm mercury at 20°C; and
 - c. Present in the waste in a concentration greater than ten (10) percent by weight.
 - 3. The placement of bulk liquid hazardous wastes or free liquid contained in hazardous wastes (whether or not absorbents have been added) in the SWMU is prohibited. The procedure for determination of free liquid in a hazardous waste shall be the standard EPA approved method contained in Attachment "B", appended hereto as a part of this Order.
- C. Provisions
 - 1. The discharger shall maintain a copy of this Order at the site to be available at all times to site operating personnel.

2. Wastes which conform to the definition of extremely hazardous waste in Section 25115 of the Health and Safety Code, such as waste which contains a substance listed in Section 66685, Title 22, of the California Administrative Code shall not be accepted for disposal unless specifically approved by a written permit from the California Department of Health Services, and a written approval from the Regional Board.

- 3. The discharger shall maintain a legible record using a reporting form approved by the Executive Officer, of the volume and type of each waste received at the site and the manner and location of disposal. The record shall be maintained for a period of not less than ten (10) years, with the records to be forwarded to the Board when disposal operations cease.
- 4. The discharger shall update the operation plan when material changes in operations are made; and a letter shall be submitted to the Regional Board annually indicating compliance or noncompliance with said plan. The plan shall conform to future editions of Title 23, Chapter 3, Subchapter 15, of the California Administrative Code.
- 5. The discharger shall comply with "Monitoring and Reporting Program No. 85-80" and future revisions thereto, as specified by the Executive Officer.
- 6. This Board Order is specifically in regards to discharges into the above specified waste management unit. Prior to the beginning of construction of any additional waste management unit for discharge of the above listed wastes, the discharger shall submit a completed report of proposed discharge and receive an adopted Order by the Regional Board.
- 7. A detailed ground water and vadose zone detection monitoring program shall be submitted and approved by the Executive Officer. The monitoring program shall include specifications of well placement, screening, procedures for well development, as well as a detailed sampling and analyses plan. The monitoring program shall also be in full compliance with Article 5 of Subchapter 15, Chapter 3, Title 23 of the California Administrative Code and shall be implemented and operating prior to deposition of wastes.
- 8. As the ground water and vadose zone detection monitoring data becomes available, the Regional Board directs the Executive Officer to submit water quality protection standards for consideration by the Regional Board, as per Subsection 2552(a) of Subchapter 15, Chapter 3, Title 23 of the California Administrative Code.
- 9. This Order does not authorize violation of any federal, state, or local laws or regulations.
- 10. The discharger shall maintain an impermeable road surface on the Garvey Road bridge at the Westside Main Canal to prevent any materials on the bridge from entering the canal. The discharger shall maintain a surface water drainage system to prevent lateral runoff from the bridge or its approaches from entering the Westside Main Canal.

I, Arthur Swajian, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on October 2, 1985.

Executive Officer

ATTACHMENT A

TO ORDER NO. 85-80 OF THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION ADOPTED OCTOBER 2, 1985



SITE PLAN



IT CORPORATION IMPERIAL VALLEY FACILITY

* Added by Regional Board staff to clarify Site Plan which is a copy from the Design Report, May 1985.

						HAZARDOUS WASTE LANDFELL				
						LOCATION MAP & SITE PLAN				
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		-					1012 1-0-05	-	1017 3-4-85	1.
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Attachment B Order No. 85-80 Page 1 of 2

ATTACHMENT B

U. S. ENVIRONMENTAL PROTECTION AGENCY METHOD 9095

PAINT FILTER LIQUIDS TEST

1.0 Scope and Application

- 1.1 This method is used to determine the presence of free liquid in a representative sample of waste.
- 1.2 The method is used to determine compliance with Prohibition B.3. of Order No. 85-80.
- 2.0 Summary of Method
 - 2.1 A predetermined amount of material is placed in a paint filter. If any portion of the material passes through and drops from the filter within the 5 minute test period, the material is deemed to contain free liquid.
- 3.0 Interferences
 - 3.1 Filter media was observed to separate from the filter cone on exposure to alkaline materials. This development causes no problem if the sample is not disturbed.

4.0 Apparatus and Materials

- 4.1 Conical paint filter mesh number 60. Available at local paint stores such as Sherwin-Williams and Glidden for an approximate cost of \$0.07 each.
- 4.2 Glass Funnel (If the paint filter, with the waste, cannot sustain its weight on the ring stand, then a fluted glass funnel or glass funnel with a mouth large enough to allow at least one inch of filter mesh to protrude should be used to support the filter. The funnel is to be fluted or have a large open mount in order to support the paint filter yet not interfere with the movement, to the graduated cylinder, of the material that passes through the filter mesh.)
- 4.3 Ring Stand and Ring, or Tripod.
- 4.4 Beaker or Graduated Cylinder, 100 ml.

5.0 Reagents

5.1 None.

Attachment B (cont) Page 2 of 2

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6.0 Sample Collection, Preservation, and Handling

- 6.1 All samples must be collected according to the directions in Section One of U.S. Environmental Protection Agency guidance document SW-846.
- 6.2 A 100 ml or 100g representative sample is required for the test. (If it is not possible to obtain a sample of 100 ml or 100g that is sufficiently representative of the waste, the analyst may use larger size samples in multiples of 100 ml or 100g, i.e., 200, 300, 400 ml or g. However, when larger samples are used, analysts shall divide the sample into 100 ml or 100g portions and test each portion separately. If any portion contains free liquid the entire sample is considered to have free liquid. If the percent of free liquid in the sample needs to be determined, it shall be the average of the subsamples tested.)

7.0 Procedure

- 7.1 Assemble test appartus.
- 7.2 Place sample in the filter. A funnel may be used to provide support for the paint filter.
- 7.3 Allow sample to drain for 5 minutes into the graduated cylinder.
- 7.4 If any portion of the test material collects in the graduated cylinder in the 5 minute period, then the material is deemed to contain free liquid for purposes of Prohibition B.3. of Order No. 85-80.

8.0 Quality Control

8.1 Duplicate samples should be analyzed on a routine basis.

Revised 3/85

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 85-80 FOR IT CORPORATION IMPERIAL VALLEY CLASS I SOLID WASTE MANAGEMENT UNIT Imperial County

Site Location: Section 16, T13S, R12E, SBB&M

MONITORING

IT Corporation shall report monitoring data to the Regional Board in accordance with the following schedule:

A. Waste Monitoring

- 1. The following information shall be reported monthly to the Regional Board concerning each load of waste accepted for disposal into the SWMU:
 - a. Quantity of each waste received in gallons, tons, or cubic yards.
 - b. Type of waste received classified by the general categories of wastes which have been approved for disposal into the SWMU.
 - c. Manifest number of the waste.
 - d. Date of receipt of the waste.
- 2. IT Corporation shall annually submit a report concerning each approved waste other than emergency discharges which the Corporation plans to continue to accept for disposal into the SWMU. Said report shall contain the following information:
 - a. An analysis of each waste not in excess of 60 days old. If no waste of a specific type has been received during the last 60 days of the calendar year, the Corporation shall submit the latest available analysis.
 - b. A statement concerning the maximum anticipated concentrations of hazardous constituents in the waste.
 - c. Anticipated maximum quantity of material to be discharged on a guarterly basis.

CALIFORNIA REGIONAL WATER JUALITY CONTROL BOARD COLORADO RIV. BASIN REGION

MONITORING AND REFORMED PROGRAM NO. 85-80 FUR IT CORPORATION MPBRIAL VALLEY CLASS I SOLED WASTE MANAGEMENT UNIT Imperial County

Site Location: Section 16, T13S, 112E, SBB&M.

MONITORING

IT Corporation shall report monitoring data to the Regional Board in accordance with the following schedule:

- . Waste Monitoring
- . The following information shall be reported monthly to the Regional Board concerning each load of waste accepted for disposal into the SWMU:
 - . Quantity of each waste received in gallous, tons, or cubic yards.
 - Type of waste received classified by the general categories of wastes which have been approved for disposal into the SWMU.
 - e. Manifest number of the waste
 - d. Date of receipt of the waste,
- IT Corporation shall annually submit a report concerning each approved waste other than emergency discharges which the Corporation plans to continue to accept for disposal into the SWMU. Said report shall contain the following information:
 - a. An analysis of each waste not in excess of 60 days old. It no waste of a specific type has been received during the last 60 days of the calendar year, the Corporation shall submit the latest available analysis.
 - b. A statement concerning the maximum anticipated concentrations of bazardous constituents in the waste.
 - Anticipated maximum quantity of material to be discharged on a quarterly basis.

B. Solid Waste Management Unit Monitoring

- 1. The discharger shall inspect the SWMU containment structure weekly and report the results of the inspections monthly. The report shall contain the following information:
 - a. Detection of liquid and quantity thereof within the leachate collection system, and disposition of any leachate recovered.
 - b. Detection of liquid and quantity thereof within the leak detection system, and disposition of any leachate recovered.
 - c. Any apparent seepage from the SWMU structure.
 - d. General condition of the berms.
 - e. Steps taken to correct any problems found during inspection, and when taken.
 - f. A map showing the location and depth of waste placed within the SWMU since the last report, at five (5) foot depth intervals.
 - g. Physical tests (subject to approval by the Executive Officer) performed at five (5) foot depth intervals, by certified personnel, on the waste to demonstrate the stability of the fill with respect to final closure.
- 2. On an annual basis the leak detection system and leachate collection and removal system shall be tested to insure they are operating properly. The discharger shall report the results of this testing in the annual report.

C. Ground Water Monitoring

1. Upon completion of each approved ground water monitoring well, the discharger shall obtain four (4) consecutive quarterly samples and analyze for the following constituents:

Constituent

Unit

*pH	pH Units
*Specific Conductance	micromhos/cm
Total Dissolved Solids (TDS)	mg/l
*Total Organic Carbon (TOC)	mg/1
Chemical Oxygen Demand (COD)	mg/l
*Total Organic Halogen	mg/l
Total Hardness	mg/l
Total Alkalinity	mg/l
Calcium (Ca)	mg/l
Sodium (Na)	mg/l
Lithium (Li)	mg/l

*Four replicate analyses to be performed on each sample.

Constituent	Unit
Potassium (K)	mg /]
Chloride (Cl)	mg/l
Fluoride (F)	mg/l
Nitrate (NO ₂ as N)	mg/l
Nitrite (NO ₂ as N)	mg/l
Phosphate, Total (P)	mg/l
Sulfate (SO_A)	mg/1
Sulfide (S)	mg/l
Oil and Grease	mg/l
Phenols	mg/1
Radium	pCi/l
Gross Alpha	pCi/l
Gross Beta	mrem/vear
Coliform Bacteria (Total)	MPN/100 ml
Arsenic (As)	mg/l
Barium (Ba)	mg/l
Cadmium (Cd)	mg/l
Chromium (Cr)	mg/1
Copper (Cu)	mg/l
Iron (Fe)	mg/l
Lead (Pb)	mg/l
Manganese (Mn)	mg/l
Mercury (Hg)	mg/l
Nickel (Ni)	mg/l
Selenium (Se)	mg/l
Silver (Ag)	mg/l
Zine (Zn)	mg/l
Endrin	mg/l
Lindane	mg/l
Methoxychlor	mg/l
Toxaphene	mg/l
2,4-D	mg/l
2,4,5-TP Silvex	mg/l

2. Upon completion of the sampling program described in Section C.1., representative samples of ground water shall be obtained from each ground water monitoring well and analyzed for the following constituents:

Constituent	Unit	Frequency
Total Dissolved Solids pH Specific Conductance Total Organic Carbon Total Organic Halogen	mg/l pH Units micromhos/cm mg/l mg/l	Quarterly Quarterly Quarterly Quarterly Quarterly
Chloride (Cl)	mg/l	Quarterly
Iron (Fe)	mg/l	Quarterly
Manganese (Mn)	mg/l	Quarterly
Phenoks	mg/l	Quarterly
Sodium (Na)	mg/l	Quarterly
Sulfate (SO ₄₎	mg/l	Quarterly

- 3. The following additional information shall be reported for each sampling of the ground water monitoring wells:
 - a. Date of Sampling.
 - b. Date well purged prior to sampling.
 - c. Estimate of volume of water purged from each well prior to sampling.
 - d. Static water level in well prior to pumping (MSL Elevation).
 - e. Date static water level measurement taken.

D. Flood Protection Facilities

The discharger shall inspect the SWMU and all internal and external flood protection facilities at least quarterly and following each storm which generates any stormwater flow through the diversion channels. The results of inspections shall be reported quarterly to the Regional Board. If significant damage to the flood protection facilities are found, the discharger shall report immediately to the Regional Board by telephone and transmit by letter the following information:

- 1. Location and extent of damage.
- 2. Type and quantity of wastes threatened, if any.
- 3. Interim measures to be taken to assure that no wastes are discharged from the SWMU.
- 4. Time schedule for repairs.
- E. The discharge of any waste other than those allowed in the specifications, or any other noncompliance with the operations plan, shall be reported to the Board immediately upon the discharger becoming aware that said violation(s) occurred, along with an explanation of how the correction of said violation(s) will be accomplished expeditiously.
- F. A report shall be submitted annually summarizing progress and compliance, and including any noncompliance, with the operations plan.

REPORTING

Monitoring reports shall be submitted to the Regional Board as follows:

Monthly reports - by the 15th day of the following month. Quarterly reports - by January 15, April 15, July 15, and October 15 of each year. Annual reports - by January 15 of each year.

Forward monitoring reports to:

California Regional Water Quality Control Board Colorado River Basin Region 73-271 Highway 111, Suite 21 Palm Desert, CA 92260

ova Executive Officer

October 2, 1985 Date