

Appendix B

Secondary Containment

SECONDARY CONTAINMENT AREAS

Tank Farm Area A1

Tank Farm Area A1 is located in the southwest portion of the facility, just north of the storm water basin. Tank Farm Area A1 has a secondary containment system which includes only materials that are compatible with the contents of those Hazardous Waste Management Units located within Tank Farm Area A1 containment, and their associated tanks, process vessels, and ancillary equipment at any time during the treatment process.

Acids are not stored in Tank Farm Area A1. However, acid reagents and/or acidic waste may be pumped directly into Tank Farm Area A1 tanks/vessels from sources external to Area A1 containment, typically to neutralize caustic/alkaline wastes or adjust pH. Treatment is not allowed to drop below 4 pH at any time in Tank Farm Area A1. Tank Farm Area A1 secondary containment is concrete.

Wastes managed in Tank Farm Area A1 include: Oily wastes with solids; waste oil; waste oil and water mixtures and emulsions; fuel & water mixtures; waste glycols; contaminated petroleum products; wastewater and sludges with metals, salts, and caustics; water based and water soluble metal cutting and machining lubricants and cooling oils; oil and water based paints, inks, coatings, and adhesives; wastes from equipment and vehicle cleaning, maintenance, and various industrial activities; waste chemicals (aged, surplus, or off specification); waste from spill clean-ups, groundwater, stormwater, remediation, and pollution control devices; other emulsified industrial wastes.

RCRA Waste Codes Accepted

D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

F006, F007, F008, F009, F010, F011, F012

K002, K003, K004, K005, K006, K007, K008, K048, K049, K050, K051, K052, K061, K062, K069, K071, K084, K086, K088, K106

P010, P011, P012, P013, P021, P029, P030, P063, P074, P076, P078, P098, P099, P104, P106, P113, P114, P115, P119, P120, P121

U032, U134, U135, U144, U145, U146, U151, U204, U205, U214, U215, U216, U217

California Waste Codes Accepted

121, 122, 123, 131, 132, 133, 134, 135, 141, 161, 162, 171, 172, 181, 212, 213, 214, 221, 222, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 491, 521, 541, 551, 561, 581, 612, 711, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751

Tank Farm Area A1 containment volume calculations can be found at the end of this document.

Tank Farm Area A1 containment includes the following Hazardous Waste Management Units and primary equipment:

A Portion of the Storage and Treatment Tank Unit, which consists of:

Tank 309
Tank 310
Tank 311
Tank 312

The soil samples collected within Tank Farm Area A1 Containment will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; EPA Method 9010B – Total and Amenable Cyanides; EPA Method 9045C – pH Solid; EPA Method 8082 – PCBs; EPA Method 8015M – TPH; and EPA Method 8081A- Organo-Chlorine Pesticides. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.

Containment Area A2

Containment Area A2 is located on the west side of the facility between Tank Farm Area A1 and Tank Farm Area B and Tank Farm Area C. Containment Area A2 has a secondary containment system which includes only materials that are compatible with the contents of those Hazardous Waste Management Units located within Tank Farm Area B, Tank Farm Area C, and Tank Farm Area D containment, and their associated tanks, process vessels, and ancillary equipment at any time during the treatment process.

Acids are not stored in Containment Area A2.

Treatment in Containment Area A2 is not allowed to drop below 4 pH at any time.

Wastes managed in Containment Area A2 include: Pumpable aqueous liquids, solutions, slurries, and sludges-corrosives and wastes with metals, salts, and reactive anions-sulfide, cyanide, etc. (no D003), including: Waste corrosives from industrial activities. Metal bearing wastes from the metal plating, metal finishing,

and electronics industries. Scale and rust removal wastes from boilers, heat exchangers, radiator shops, and various industrial activities, stormwater and groundwater contaminated with metals, salts, corrosives, and/or reactive anions –sulfide, cyanide, etc. (no D003). Wastes from equipment cleaning and maintenance activities including tank and container cleaning, that result in wastes with corrosives, metals, salts, and/or reactive anions-sulfide, cyanide, etc. (no D003). Waste chemicals (aged, surplus, or off-specification), which contain corrosives, metals, salts, and/or reactive anions-sulfide, cyanide, etc. (no D003). Alum, gypsum, lime, phosphate, and similar sludges. Photochemicals and photo processing wastes. Waste Oils. Wastes from pollution control devices. Spill clean-ups

Pumpable wastes with solids. These wastes include metal and salt bearing wastes from the metal plating, finishing, and electronics industries; wastes from equipment cleaning and descaling activities, including tanks, containers, heat exchangers, vessels, etc.; from various maintenance and industrial activities; wastes from contaminated stormwater, groundwater, spill clean-ups, remediation, and pollution control devices; alum, gypsum, lime and phosphate sludges; photochemical and photo processing wastes; waste chemicals (aged, surplus, or off-specification) which contain solids.

RCRA Waste Codes Accepted

D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

F006, F007, F008, F009, F010, F011, F012

K002, K003, K004, K005, K006, K007, K008, K048, K049, K050, K051, K052, K061, K062, K069, K071, K084, K086, K088, K106

P010, P011, P012, P013, P021, P029, P030, P063, P074, P076, P078, P098, P099, P104, P106, P113, P114, P115, P119, P120, P121

U032, U134, U135, U144, U145, U146, U151, U204, U205, U214, U215, U216, U217

California Waste Codes Accepted

121, 122, 123, 131, 132, 133, 134, 135, 141, 161, 162, 171, 172, 181, 212, 213, 214, 221, 222, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 491, 521, 541, 551, 561, 581, 612, 711, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751

Containment Area A2 containment is concrete.

Containment Area A2 containment volume calculations can be found at the end of this document.

Containment Area A2 containment includes the following Hazardous Waste Management Units and primary equipment:

The F-502 Treatment Unit, which consists of:
F-502 Filter press

For the purpose of this closure plan, the wash down area calculation has been included with Containment Area A-2 decontamination calculations, located in Table III of this Closure Plan.

The soil samples collected within Containment Area A-2 containment will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; EPA Method 9010B – Total and Amenable Cyanides; EPA Method 9045C – pH Solid; EPA Method 8082 – PCBs; EPA Method 8015M – TPH; and EPA Method 8081A- Organo-Chlorine Pesticides. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.

Tank Farm Area B and C

Tank Farm Area B and C are located on the west side of the facility between Tank Farm Area D and Containment Area A2. Tank Farm Area B and C has a secondary containment system which includes only materials that are compatible with the contents of those Hazardous Waste Management Units located within Tank Farm Area B and C containment, and their associated tanks, process vessels, and ancillary equipment at any time during the treatment process.

Acids are not stored in Tank Farm Area B and C. However, acid reagents and/or waste may be pumped directly into Tank Farm Area B and C tanks/vessels from sources external to Tank Farm Area B and C containment, typically to neutralize caustic/alkaline wastes or adjust pH.

Treatment in Tank Farm Area B and C is not allowed to drop below 4 pH at any time.

Wastes managed Tank Farm Area B include: Oily wastes with solids; waste oil; waste oil and water mixtures and emulsions; fuel & water mixtures; waste glycols; contaminated petroleum products; wastewater and sludges with metals, salts, and caustics; water based and water soluble metal cutting and machining lubricants and cooling oils; oil and water based paints, inks, coatings, and adhesives; wastes from equipment and vehicle cleaning, maintenance, and various industrial activities; waste chemicals (aged, surplus, or off specification);

waste from spill clean-ups, groundwater, stormwater, remediation, and pollution control devices; other emulsified industrial wastes.

Pumpable aqueous liquids, solutions, slurries, and sludges-corrosives and wastes with metals, salts, and reactive anions-sulfide, cyanide, etc. (no D003), including: Waste corrosives from industrial activities. Metal bearing wastes from the metal plating, metal finishing, and electronics industries. Scale and rust removal wastes from boilers, heat exchangers, radiator shops, and various industrial activities, stormwater and groundwater contaminated with metals, salts, corrosives, and/or reactive anions –sulfide, cyanide, etc. (no D003). Wastes from equipment cleaning and maintenance activities including tank and container cleaning, that result in wastes with corrosives, metals, salts, and/or reactive anions-sulfide, cyanide, etc. (no D003). Waste chemicals (aged, surplus, or off-specification), which contain corrosives, metals, salts, and/or reactive anions-sulfide, cyanide, etc. (no D003). Alum, gypsum, lime, phosphate, and similar sludges. Photochemicals and photo processing wastes. Waste Oils. Wastes from pollution control devices. Spill clean-ups

Pumpable wastes with solids. These wastes include metal and salt bearing wastes from the metal plating, finishing, and electronics industries; wastes from equipment cleaning and descaling activities, including tanks, containers, heat exchangers, vessels, etc.; from various maintenance and industrial activities; wastes from contaminated stormwater, groundwater, spill clean-ups, remediation, and pollution control devices; alum, gypsum, lime and phosphate sludges; photochemical and photo processing wastes; waste chemicals (aged, surplus, or off-specification) which contain solids.

RCRA Waste Codes Accepted

D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

F006, F007, F008, F009, F010, F011, F012

K002, K003, K004, K005, K006, K007, K008, K048, K049, K050, K051, K052, K061, K062, K069, K071, K084, K086, K088, K106

P010, P011, P012, P013, P021, P029, P030, P063, P074, P076, P078, P098, P099, P104, P106, P113, P114, P115, P119, P120, P121

U032, U134, U135, U144, U145, U146, U151, U204, U205, U214, U215, U216, U217

California Waste Codes Accepted

121, 122, 123, 131, 132, 133, 134, 135, 141, 161, 162, 171, 172, 181, 212, 213,

214, 221, 222, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 491, 521, 541, 551, 561, 581, 612, 711, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751

Containers on pallets that are to be transferred into SWST, and STT, hazardous waste management units, or that have been filled with waste transferred from the WPS, WPU, SWST, and STT waste management units, may be staged within the Tank Farm Area B containment for a maximum of 24 hours.

Wastes are pumped back and forth between the containers staged in Tank Farm Area B and C containment and the above referenced units using hoses and portable pumps connected to piping running from within Tank Farm Area B and C containment to those units.

A maximum of 20 pallets may be staged in Tank Farm Area B and C containment; each pallet containing a 275-gallon tote or their equivalent volume 5,500 gallons in any mixture of container sizes of up to 550 gallons each. Containers are on pallets except for those containers that are designed to be picked up directly by forklift trucks. Pallets may be arranged throughout Tank Farm Area B and C containment as long as the pallets are arranged in parallel rows with aisles at a minimum of 2.5 feet wide to allow for inspection and emergency equipment access. Containers on pallets that are transferred into Tank Farm Area B and C may be staged within Tank Farm Area B and C containment for a maximum of 24 hours.

Each container or pallet is labeled with the date and time that waste is placed into the staging area, so that operations personnel can ensure that waste is transferred within 24 hours.

Tank Farm Area B and C containment is concrete.

Tank Farm Area B and C containment volume calculations can be found at the end of this document.

Tank Farm Area B containment includes the following Hazardous Waste Management Units and primary equipment:

Staging of 80 drums or 20 pallets holding a combination of various sized containers.

The Wastewater Physical Separation Unit, which consists of:

- E-400 – Corrugated Plate Interceptor separator
- T-401– Effluent Receiver
- T-725 – pH adjustment
- T-728 - Equalizing Drum
- T-402 -Oil Receiver
- E-430 – Corrugated Plate Interceptor separator

T-702 - Effluent Receiver
T-705 - Effluent Receiver
D-401 – Air dissolver drum
D-402 – DAF float receiver
E-450 – Dissolved Air Flotation (DAF) separator
T-760 – City water
T-761A
T-761B
T-762
CF-1

The Wastewater Polishing Unit, which consists of:

CA-401 – Carbon Adsorber
CA-402 – Carbon Adsorber
CA-1 – Carbon Adsorber
CA-2 – Carbon Adsorber
KS-1 – Carbon Adsorber
KS-2 – Carbon Adsorber

Organic Caustic Scrubber System:

C-711
Blower
D- 707
D-709
Thermal Oxidizer
Sump 2
Sump 3

Reagent Tanks:

T-726 – Aluminum Sulfate
T-727 – Aluminum Sulfate
T-741- Sodium Hydroxide
T-742 – Sodium Hydroxide
Reagent Totes

Tank farm Area B also contains the former wastewater pond or waste disposal pit utilized by Vulcan Detinning/Proler International prior to 1983.

Prior to DKE, Chem-Tech Systems, and Triple J Pacification Treatment Center, the site was a detinning facility operated by Vulcan Materials Company. Little information is available on this facility however detinning plants, in general, use a process that is made up of a series of chemical and electrical steps that separate, purify, and recover the steel and tin from cans. In the batch process of detinning, the cans first are loaded into perforated steel drums and dipped into a caustic chemical solution that dissolves the tin from the steel. The detinned steel cans are drained, rinsed, and baled. The steel bales are sold to steel mills.

The liquid with the tin is a salt solution called sodium stannate. The solution is filtered to remove scraps of paper and other materials. Then it's chemically treated to eliminate other metals. Finally, the solution is transferred to an electrolysis bath where an electric current is applied and the tin plates out. After the plate is covered, the tin is melted off and cast into ingots. The ingots are at least 99.98 percent pure tin and are used in the chemical and pharmaceutical industries.

The details of how and where each process line operated are unknown for this facility. However, a 1968 map from The Sanborn Library shows the general facility layout as of August 1966. This map is included as Figure 3.

The soil samples collected within Tank Farm Area B containment will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; EPA Method 9010B – Total and Amenable Cyanides; EPA Method 9045C – pH Solid; EPA Method 8082 – PCBs; EPA Method 8015M – TPH; and EPA Method 8081A- Organo-Chlorine Pesticides. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.

Tank Farm Area C containment includes the following Hazardous Waste Management Units and primary equipment:

The Solvent Wastewater Storage & Treatment Unit, which consists of:

Tank T-103
Tank T-104

The Storage and Treatment Tank Unit, which consists of:

Tank T-001
Tank T-101
Tank T-102
Tank T-201
Tank T-202
Tank T-780
Sump –10 / PP-010

Sump 4

The soil samples collected within Tank Farm C containment will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; EPA Method 9045C – pH Solid; EPA Method 8082 – PCBs; EPA Method 8015M – TPH; and EPA Method 8081A- Organo-Chlorine Pesticides. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.

Tank Farm Tank Farm Area D

Tank Farm Area D is located on the west side of the facility between Tank Farm Area F and Tank Farm Area B and C. Tank Farm Area D has a secondary containment system which includes only materials that are compatible with the contents of those Hazardous Waste Management Units located within Tank Farm Area D containment, and their associated tanks, process vessels, and ancillary equipment at any time during the treatment process.

Acids are not stored in Tank Farm Area D. However, acid reagents and/or waste may be pumped directly into Area D tanks/vessels from sources external to Area D containment, typically to neutralize caustic/alkaline wastes or adjust pH.

Treatment in Area D is not allowed to drop below 4 pH at any time.

Wastes managed in Area D include: Pumpable aqueous liquids, solutions, slurries, and sludges-corrosives and wastes with metals, salts, and reactive anions-sulfide, cyanide, etc. (no D003), including: Waste corrosives from industrial activities. Metal bearing wastes from the metal plating, metal finishing, and electronics industries. Scale and rust removal wastes from boilers, heat exchangers, radiator shops, and various industrial activities, stormwater and groundwater contaminated with metals, salts, corrosives, and/or reactive anions-sulfide, cyanide, etc. (no D003). Wastes from equipment cleaning and maintenance activities including tank and container cleaning, that result in wastes with corrosives, metals, salts, and/or reactive anions-sulfide, cyanide, etc. (no D003). Waste chemicals (aged, surplus, or off-specification) which contain corrosives, metals, salts, and/or reactive anions-sulfide, cyanide, etc. (no D003). Alum, gypsum, lime, phosphate, and similar sludges. Photochemicals and photo processing wastes. Waste Oils. Wastes from pollution control devices. Spill clean-ups

Pumpable wastes with solids. These wastes include metal and salt bearing wastes from the metal plating, finishing, and electronics industries; wastes from equipment cleaning and descaling activities, including tanks, containers, heat exchangers, vessels, etc.; from various maintenance and industrial activities; wastes from contaminated stormwater, groundwater, spill clean-ups, remediation, and pollution control devices; alum, gypsum, lime and phosphate sludges; photochemical and photo processing wastes; waste chemicals (aged, surplus, or off-specification) which contain solids.

RCRA Waste Codes Accepted

D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

F006, F007, F008, F009, F010, F011, F012

K002, K003, K004, K005, K006, K007, K008, K048, K049, K050, K051, K052, K061, K062, K069, K071, K084, K086, K088, K106

P010, P011, P012, P013, P021, P029, P030, P063, P074, P076, P078, P098, P099, P104, P106, P113, P114, P115, P119, P120, P121

U032, U134, U135, U144, U145, U146, U151, U204, U205, U214, U215, U216, U217

California Waste Codes Accepted

121, 122, 123, 131, 132, 133, 134, 135, 141, 161, 162, 171, 172, 181, 212, 213, 214, 221, 222, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 491, 521, 541, 551, 561, 581, 612, 711, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751

Containers on pallets that are to be transferred into the M-11, F-501, and STT hazardous waste management units, or that have been filled with waste transferred from the M-11, F-501, and STT waste management units, may be staged within Tank Farm Area D containment for a maximum of 24 hours.

Wastes are pumped back and forth between the containers staged in Tank Farm Area D containment and the above referenced units using hoses and portable connected to piping running from within Tank Farm Area D containment to those units.

A maximum of 20 pallets may be staged in Tank Farm Area D containment; each pallet containing a 275-gallon tote or their equivalent volume 5,500 gallons in any mixture of container sizes of up to 550 gallons each. Containers are on pallets except for those containers that are designed to be picked up directly by forklift trucks. Pallets may be arranged throughout Tank Farm Area D containment as long as the pallets are arranged in parallel rows with aisles at a minimum of 2.5 feet wide to allow for inspection and emergency equipment access. Containers on pallets that are transferred into Tank Farm Area D may be staged within Tank Farm Area D containment for a maximum of 24 hours.

Each container or pallet is labeled with the date and time that waste is placed into the staging area, so that operations personnel can ensure that waste is transferred within 24 hours.

Tank Farm Area D containment is concrete.

Tank Farm Area D containment volume calculations can be found at the end of this document.

Tank Farm Area D containment includes the following Hazardous Waste Management Units and primary equipment:

Staging of 80 drums or 20 pallets holding a combination of various sized containers.

The M-11 Treatment Unit, which consists of:
Tank M-11

The F-501 Treatment Unit, which consists of:
F-501 Filter press

The Storage and Treatment Tank Unit, which consists of:
Tank T-302
Tank T-307
Tank T-308
Tank T-720
Tank T-720A
Tank T-721
Tank T-203
Tank T-204
Tank T-210

Sump 1
Sump 11 / PP-012

Inorganic Caustic Scrubber System
C-710
Blower
D- 706
D-708

The soil samples collected within Tank Farm Area D containment will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; EPA Method 9010B – Total and Amenable Cyanides; EPA Method 9045C – pH Solid; and EPA Method 8081A- Organo-Chlorine Pesticides. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.

AREA E – (Container Storage Unit West (CSUW)) Acids and Non-Acid

The Container Storage Unit West is located inside the main building in its north section. This unit stores containers received from off-site generators or containers of byproducts generated on-site for up to one year. Containers

received from off-site are sampled and inspected in this unit.

This unit has two separate secondary containments to allow for segregation of incompatibles. The acid containment is located at the north end. The non-acid containment area is located immediately south of the acid containment and stores all other compatible wastes except acids.

The Bulk Acid Loading & Unloading Rack is located to the east of the acid containment.

The acid secondary containment is coated with an epoxy coating that can withstand acids, caustics, petroleum, and solvents.

Secondary containment for the non-acid containment is concrete.

Secondary containment details can be found at the end of this document.

RCRA Waste Codes Accepted

D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

F001, F002, F003, F004, F005, F006, F007, F008, F009, F010, F011, F012

K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K013, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K038, K039, K040, K041, K042, K043, K044, K045, K046, K047, K048, K049, K050, K051, K052, K060, K061, K062, K069, K071, K073, K083, K084, K085, K086, K087, K088, K093, K094, K095, K096, K097, K098, K099, K101, K102, K103, K104, K105, K106, K171, K172

P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, P013, P014, P015, P016, P017, P018, P020, P021, P022, P023, P024, P026, P027, P028, P029, P030, P031, P033, P034, P036, P037, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P054, P056, P057, P058, P059, P060, P062, P063, P064, P065, P066, P067, P068, P069, P070, P071, P072, P073, P074, P075, P076, P077, P078, P081, P082, P084, P085, P087, P088, P089, P092, P093, P094, P095, P096, P097, P098, P099, P101, P102, P103, P104, P105, P106, P108, P109, P110, P111, P112, P113, P114, P115, P116, P118, P119, P120, P121, P122

U001, U002, U003, U004, U005, U006, U007, U008, U009, U010, U011, U012, U014, U015, U016, U017, U018, U019, U020, U021, U022, U023, U024, U025, U026, U027, U028, U029, U030, U031, U032, U033, U034, U035, U036, U037, U038, U039, U041, U042, U043, U044, U045, U046, U047, U048, U049, U050,

U051, U052, U053, U055, U056, U057, U058, U059, U060, U061, U062, U063, U064, U066, U067, U068, U069, U070, U071, U072, U073, U074, U075, U076, U077, U078, U079, U080, U081, U082, U083, U084, U085, U086, U087, U088, U089, U090, U091, U092, U093, U094, U095, U096, U097, U098, U099, U101, U102, U103, U105, U106, U107, U108, U109, U110, U111, U112, U113, U114, U115, U116, U117, U118, U119, U120, U121, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U133, U134, U135, U136, U137, U138, U140, U141, U142, U143, U144, U145, U146, U147, U148, U149, U150, U151, U152, U153, U154, U155, U156, U157, U158, U159, U160, U161, U162, U163, U164, U165, U166, U167, U168, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U186, U187, U188, U189, U190, U191, U192, U193, U194, U196, U197, U200, U201, U202, U203, U204, U205, U206, U207, U208, U209, U210, U211, U213, U214, U215, U216, U217, U218, U219, U220, U221, U222, U223, U225, U226, U227, U228, U234, U235, U236, U237, U238, U239, U240, U243, U244, U246, U247, U248, U249

California Waste Codes Accepted

121, 122, 123, 131, 132, 133, 134, 135, 141, 151, 161, 162, 171, 172, 181, 211, 212, 213, 214, 221, 222, 223, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 481, 491, 511, 512, 513, 521, 541, 551, 561, 571, 581, 591, 611, 612, 711, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751, 791, 792

Area E Non-Acids containment includes the following Hazardous Waste Management Units and primary equipment:

Sump 6
Sump 7
Sump 8
Sump 9

The soil samples collected within Area E – (Container Storage Unit West (CSUW)) Non-Acid containment will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; EPA Method 9010B – Total and Amenable Cyanides; EPA Method 9045C – pH Solid; EPA Method 8082 – PCBs; EPA Method 8015M – TPH; and EPA Method 8081A- Organo-Chlorine Pesticides. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site’s activities.

The soil samples collected within Area E – (Container Storage Unit West (CSUW)) Acids containment will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 9010B – Total and Amenable Cyanides; and EPA Method 9045C – pH Solid; The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site’s activities.

Tank Farm Area F

Tank Farm Area F is located at the northwest corner of the facility. Tank Farm Area F has a secondary containment system which includes only materials that are compatible with the contents of those Hazardous Waste Management Units located within Tank Farm Area F containment, and their associated tanks process vessels, and ancillary equipment at any time during the treatment process. Unlined carbon steel drums are not stored in this containment.

Caustics are not stored in Tank Farm Area F containment. However, caustic reagents and/or waste may be pumped directly into Tank Farm Area F tanks/vessels from sources external to Area F containment, typically to neutralize acidic wastes, or adjust pH.

Tank Farm Area F containment is coated with an epoxy coating that can withstand acids, caustics, petroleum, and solvents. Treatment in Tank Farm Area F is not allowed to rise above 10 pH at any time.

Wastes managed in Tank Farm Area F include: Pumpable aqueous liquids, solutions, slurries, and sludges-corrosives and wastes with metals, salts, and reactive anions-sulfide, cyanide, etc. (no D003), including: Waste corrosives from industrial activities. Metal bearing wastes from the metal plating, metal finishing, and electronics industries. Scale and rust removal wastes from boilers, heat exchangers, radiator shops, and various industrial activities, stormwater and groundwater contaminated with metals, salts, corrosives, and/or reactive anions –sulfide, cyanide, etc. (no D003). Wastes from equipment cleaning and maintenance activities including tank and container cleaning, that result in wastes with corrosives, metals, salts, and/or reactive anions-sulfide, cyanide, etc. (no D003). Waste chemicals (aged, surplus, or off-specification), which contain corrosives, metals, salts, and/or reactive anions-sulfide, cyanide, etc. (no D003). Alum, gypsum, lime, phosphate, and similar sludges. Photochemical and photo processing wastes. Wastes from pollution control devices. Spill clean-ups. Oil and water emulsions - typically mixtures of oil, water, soaps (alkaline salts of organic acids), caustics, and surfactants, and, in some cases, containing corrosives and/or metals, including: Wastes from industrial equipment cleaning and maintenance activities using soaps and/or caustics. Waste Oils. Water based and water soluble metal cutting and machining lubricating and cooling oils. Oils contaminated with corrosives. Waste chemicals (aged, surplus, or off-specification), which contain emulsified oil, soaps, surfactants, and/or caustics. Other emulsified industrial aqueous wastes.

RCRA Waste Codes Accepted

D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

F006, F007, F008, F009, F010, F011, F012

K002, K003, K004, K005, K006, K007, K008, K048, K049, K050, K051, K052, K061, K062, K069, K071, K084, K086, K088, K106

P010, P011, P012, P013, P021, P029, P030, P063, P074, P076, P078, P098, P099, P104, P106, P113, P114, P115, P119, P120, P121

U032, U134, U135, U144, U145, U146, U151, U204, U205, U214, U215, U216, U217

California Waste Codes Accepted

121, 122, 123, 131, 132, 133, 134, 135, 141, 162, 171, 172, 181, 221, 222, 223, 241, 291, 311, 331, 341, 342, 343, 411, 421, 431, 441, 451, 491, 521, 541, 551, 561, 581, 612, 711, 721, 722, 723, 724, 725, 726, 727, 728, 791, 792

Tank Farm Area F containment volume calculations details can be found at the end of this document.

Tank Farm Area F containment includes the following Hazardous Waste Management Units and primary equipment:

The M-1 Treatment Unit, which consists of:
Tank M-1.

The M-2 Treatment Unit, which consists of:
Tank M-2.

The Acid Bulk Receiving & Storage Unit, which consists of:
Tank M-3,
Tank M-4,
Tank M-5, and
Tank M-6.

The soil samples collected within Tank Farm F containment will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; EPA Method 9010B – Total and Amenable Cyanides; and EPA Method 9045C – pH Solid. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.

The Container Receiving & Inspection Unit

The Container Receiving & Inspection Unit is located in the northeast portion of

the facility. This unit stages containers received from off-site generators for up to ten days. Containers received from off-site are sampled and inspected in this unit.

The former, Triple J Pacification, truck wash sump area is also located within the Container Receiving and Inspection Unit boundary.

This unit is concrete.

RCRA Waste Codes Accepted

D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

F001, F002, F003, F004, F005, F006, F007, F008, F009, F010, F011, F012

K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K013, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K038, K039, K040, K041, K042, K043, K044, K045, K046, K047, K048, K049, K050, K051, K052, K060, K061, K062, K069, K071, K073, K083, K084, K085, K086, K087, K088, K093, K094, K095, K096, K097, K098, K099, K101, K102, K103, K104, K105, K106, K171, K172

P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, P013, P014, P015, P016, P017, P018, P020, P021, P022, P023, P024, P026, P027, P028, P029, P030, P031, P033, P034, P036, P037, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P054, P056, P057, P058, P059, P060, P062, P063, P064, P065, P066, P067, P068, P069, P070, P071, P072, P073, P074, P075, P076, P077, P078, P081, P082, P084, P085, P087, P088, P089, P092, P093, P094, P095, P096, P097, P098, P099, P101, P102, P103, P104, P105, P106, P108, P109, P110, P111, P112, P113, P114, P115, P116, P118, P119, P120, P121, P122

U001, U002, U003, U004, U005, U006, U007, U008, U009, U010, U011, U012, U014, U015, U016, U017, U018, U019, U020, U021, U022, U023, U024, U025, U026, U027, U028, U029, U030, U031, U032, U033, U034, U035, U036, U037, U038, U039, U041, U042, U043, U044, U045, U046, U047, U048, U049, U050, U051, U052, U053, U055, U056, U057, U058, U059, U060, U061, U062, U063, U064, U066, U067, U068, U069, U070, U071, U072, U073, U074, U075, U076, U077, U078, U079, U080, U081, U082, U083, U084, U085, U086, U087, U088, U089, U090, U091, U092, U093, U094, U095, U096, U097, U098, U099, U101, U102, U103, U105, U106, U107, U108, U109, U110, U111, U112, U113, U114, U115, U116, U117, U118, U119, U120, U121, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U133, U134, U135, U136, U137, U138, U140, U141, U142, U143, U144, U145, U146, U147, U148, U149, U150, U151,

U152, U153, U154, U155, U156, U157, U158, U159, U160, U161, U162, U163, U164, U165, U166, U167, U168, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U186, U187, U188, U189, U190, U191, U192, U193, U194, U196, U197, U200, U201, U202, U203, U204, U205, U206, U207, U208, U209, U210, U211, U213, U214, U215, U216, U217, U218, U219, U220, U221, U222, U223, U225, U226, U227, U228, U234, U235, U236, U237, U238, U239, U240, U243, U244, U246, U247, U248, U249

California Waste Codes Accepted

121, 122, 123, 131, 132, 133, 134, 135, 141, 151, 161, 162, 171, 172, 181, 211, 212, 213, 214, 221, 222, 223, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 481, 491, 511, 512, 513, 521, 541, 551, 561, 571, 581, 591, 611, 612, 711, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751, 791, 792

Several phases of investigation have been conducted beneath the Container Receiving and Inspection Unit (CRIU). On January 31, 2005, soil vapor samples, identified as SVS-1 through SVS-7 were taken beneath the CRIU and on February 7, 2005, soil samples and soil vapor samples, identified as B-12 through B-17 were taken beneath the CRIU utilizing a work plan that was approved by the Department of Toxic Substances Control (DTSC). Appendix H contains the letter from DTSC dated January 28, 2005 providing conditional approval of the Closure Sampling Plan for the CRIU. Appendix H1 contains the Closure Sampling Plan that was utilized to obtain the CRIU soil samples. The location of the soil samples is located in Figures, Figure 1, Proposed Boring, Soil and Vapor Sample Points map.

The Consolidation of Solids & Sludges Unit

Bulk Solids Storage Unit

Railcar Loading & Unloading Unit

The Consolidation of Solids & Sludges Unit, the Bulk Solids Storage Unit, and the Railcar Loading & Unloading Unit are located east of Tank Farm Area A1 and Tank Farm Area C. Portions of the Consolidation of Solids & Sludges Unit is also located in common with the Bulk Solids Storage Unit and the Railcar Loading & Unloading Unit, since all consolidation of solids takes place in roll-off bins, end dump trailers, other DOT containers, or railcars within those units.

Wastes managed in the Consolidation of Solids & Sludges Unit, the Bulk Solids Storage Unit, and the Railcar Loading & Unloading Unit include: Filter cake from the F-501 and F-502 treatment units; the solids/sludge phase from the Centrifuge Unit; bottom solids and sludge from other on-site units; wastes from on-site maintenance activities; solids, sludges, and wastes with free liquids from off-site generators, including metal bearing wastes from the metal plating, finishing, and electronics industries; scale and rust removal wastes from boilers, heat exchangers, radiator shops, and various industrial activities; contaminated soil;

wastes from equipment cleaning and maintenance activities including tank and container cleaning; oily absorbents; sump cleanout wastes; spent catalysts; debris; waste chemicals (aged, surplus, or off-specification); spill cleanups; latex and silicone wastes; resins; adhesives; asphalt; tar; paints and coatings; inks; salt and brine waste; bilge cleanout; ash; sandblast grit; polymers; spent PPE; carbon; industrial trash; asbestos waste (if friable, consolidation of sealed packages and containers only); photochemical / photo processing wastes; rags; cans; crushed and uncrushed containers and tanks; filtercake; filters; concrete; rocks; grinding / polishing / machining wastes; soaps/detergents/cleaners; alum, gypsum, lime, and phosphate sludges; wastes from pollution control devices.

RCRA Waste Codes Accepted

D002, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

F001, F002, F003, F004, F005, F006, F007, F008, F009, F010, F011, F012

K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K013, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K038, K040, K041, K042, K043, K046, K048, K049, K050, K051, K052, K060, K061, K062, K069, K071, K073, K083, K084, K085, K086, K087, K088, K093, K094, K095, K096, K097, K098, K099, K101, K102, K103, K104, K105, K106, K171, K172

P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, P013, P014, P015, P016, P017, P018, P021, P022, P023, P024, P026, P027, P028, P029, P030, P031, P033, P034, P036, P037, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P054, P056, P057, P058, P059, P060, P062, P063, P064, P065, P066, P067, P068, P069, P070, P071, P072, P073, P074, P075, P076, P077, P078, P081, P082, P084, P085, P087, P088, P089, P092, P093, P094, P095, P096, P097, P098, P099, P101, P102, P103, P104, P105, P106, P108, P109, P110, P111, P112, P113, P114, P115, P116, P118, P119, P120, P121

U001, U002, U003, U004, U005, U006, U007, U008, U009, U010, U011, U012, U014, U015, U016, U017, U018, U019, U020, U021, U022, U023, U024, U025, U026, U027, U028, U029, U030, U031, U032, U033, U034, U035, U036, U037, U038, U039, U041, U042, U043, U044, U045, U046, U047, U048, U049, U050, U051, U052, U053, U055, U056, U057, U058, U059, U060, U061, U062, U063, U064, U066, U067, U068, U069, U070, U071, U072, U073, U074, U075, U076, U077, U078, U079, U080, U081, U082, U083, U084, U085, U086, U087, U088, U089, U090, U091, U092, U093, U094, U095, U096, U097, U098, U099, U101, U102, U103, U105, U106, U107, U108, U109, U110, U111, U112, U113, U114, U115, U116, U117, U118, U119, U120, U121, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U133, U134, U135, U136, U137, U138,

U140, U141, U142, U143, U144, U145, U146, U147, U148, U149, U150, U151, U152, U153, U154, U155, U157, U158, U159, U161, U162, U163, U164, U165, U166, U167, U168, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U186, U187, U188, U190, U191, U192, U193, U194, U196, U197, U200, U201, U202, U203, U204, U205, U206, U207, U208, U209, U210, U211, U213, U214, U215, U216, U217, U218, U219, U220, U221, U222, U223, U225, U226, U227, U228, U235, U236, U237, U238, U239, U240, U243, U244, U246, U247, U248

California Waste Codes Accepted

121, 122, 123, 131, 132, 133, 134, 135, 141, 151, 161, 162, 171, 172, 181, 211, 212, 213, 214, 221, 222, 223, 231, 232, 241, 251, 252, 271, 272, 281, 291, 311, 331, 341, 342, 343, 351, 352, 411, 421, 431, 441, 451, 461, 471, 481, 491, 511, 512, 513, 521, 541, 551, 561, 571, 581, 591, 611, 612, 711, 721, 722, 723, 724, 725, 726, 727, 728, 741, 751

A maximum of 20 pallets may be stage at the Consolidation of Solids & Sludges Unit; each pallet containing a 275-gallon tote or their equivalent volume 5,500 gallons in any mixture of container sizes of up to 550 gallons each staged in the Consolidation of Solids & Sludges Unit containment area. Containers are on pallets except for those containers that are designed to be picked up directly by forklift trucks. The pallets are arranged with aisles at a minimum of 2.5 feet wide to allow for inspection and emergency equipment access. Containers on pallets that are transferred into the Consolidation of Solids & Sludges Unit may be staged within the Consolidation of Solids & Sludges Unit for a maximum of 24 hours. Each container or pallet is labeled with the date and time that waste is placed into the staging area, so that operations personnel can ensure that waste is transferred within 24 hours.

Containment is concrete.

The location and the boundary of the Consolidation of Solids and Sludges waste management unit are shown in Appendix A(O) - Figure IV-17 (initial),

The location and the boundary of the Bulk Solid Storage waste management unit are shown in Appendix A(P) - Figure IV-18 (initial).

The location and the boundary of the Railcar Loading & Unloading waste management unit are shown in Appendix A(Q) -Figure IV-19 (initial).

The Consolidation of Solids & Sludges Unit containment includes the following Hazardous Waste Management Units and primary equipment:

MX-601 -Cement mixer

DCU-601 – A drum crusher

S-600 – A silo for reagent storage - AKP Absorbent

The soil samples collected within the Consolidation of Solids and Sludges Unit Area will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; EPA Method 9010B – Total and Amenable Cyanides; EPA Method 9045C – pH Solid; EPA Method 8082 – PCBs; and EPA Method 8015M – TPH. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.

The Bulk Solids Storage Unit includes the following Hazardous Waste Management Units and primary equipment:

Roll- off bins of various sizes (i.e. 20 cuyd, 30 cuyd)

For the purpose of this closure plan, the loading and unloading area, and the driveway area calculations have been included with the BSSU containment decontamination calculations, located in Table III of this closure plan.

The soil samples collected within the Bulk Solid Storage Unit Area will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; EPA Method 9010B – Total and Amenable Cyanides; EPA Method 9045C – pH Solid; EPA Method 8015M – TPH; and EPA Method 8081A- Organo-Chlorine Pesticides. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.

The Railcar Loading & Unloading Unit includes the following Hazardous Waste Management Units and primary equipment:

Tank Rail Cars
Gondola Rail Cars

Waste is not held in railcars in excess of ten days.

The soil samples collected within the Railcar Loading and Unloading area will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; EPA Method 9045C – pH Solid; EPA Method 8082 – PCBs; EPA Method 8015M – TPH; and EPA Method 8081A- Organo-Chlorine Pesticides. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.

Batch Discharge Tank

The Batch Discharge Tanks are used to accumulate pretreated wastewater from

DKE's various treatment units prior to testing and discharge to the LACSD POTW. The discharge of pretreated wastewater from the batch discharge tanks is by LACSD Permit No. 14633.

The Batch Discharge Tank unit consists of the following tanks:

Tank 320
Tank 321

The Batch Discharge Tank unit is located South of Tank Farm Area A1. The location and boundary of this waste management unit are shown in Appendix A(I) - Figure IV-11 (initial).

The soil samples collected within the Batch Discharge Tank Farm Area will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; and EPA Method 9045C – pH Solid. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.

Non-Hazardous Waste Tanks

The Non-Hazardous Water Tank Unit is not a DTSC Permitted Hazardous Waste Management Unit.

Trucks unloaded directly to tanks T-319, T-322, and T323, or unloaded through basket strainers into tanks T-319, T-322, and T-323.

This unit does not store RCRA or Non-RCRA waste.

The Non Hazardous Waste Tank Unit consists of the following tanks:

Tank 319
Tank 322
Tank 323

Tanks T-319 through T-323 are located South of Tank Farm Area A1. The location and boundary of this waste management unit are shown in Appendix A(F) - Figure IV- 21(initial).

The soil samples collected within the Non-Hazardous Waste Tank Unit Area will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; and EPA Method 9045C – pH Solid. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.

The Storm Water Basin

The Storm water basin is not a DTSC Permitted Hazardous Waste Management Unit.

This unit does not store RCRA or Non-RCRA waste.

The Storm water basin consists of the following:

Storm water basin

For the purpose of this closure plan, the Batch Discharge Tank, Non-Hazardous Waste Tank area and the Storm Water basin calculations have been included in Containment Area BDT & Non-Haz decontamination calculations, located in Table III of this closure plan.

The soil samples collected within the Storm Water Basin Area will be analyzed for the following: EPA Method 6010 – CAM Metals; EPA Method 8260 -Volatile (Purgeable Organics); EPA Method 8270- Semi Volatile Organics; and EPA Method 9045C – pH Solid. The analyses are based on the history of the wastes and chemicals that were shipped, received, treated, stored, or managed within these areas as well as the overall history of the site's activities.



Gekko Engineering

July 19, 2005

Letter: 0413

Ms. Rosemary Domino
D/K Environmental
3650 East 26th Street
Los Angeles, CA 90023-4504

Subject: Existing Containment System Certification

Dear Ms. Domino:

I have personally reviewed the containment system at the D/K Environmental facility located at 3650 East 26th Street in Los Angeles, and hereby certify that the system as proposed is suitably designed to achieve the requirements of CCR Title 22, Division 4.5, Chapter 14, Article 9, Section 66264.175.

My analysis included containment calculations for each of the containment areas in accordance with Section 66264.175. The results of those calculations are enclosed along with drawings indicating the equipment in each of the areas.

This is a revised submittal; the original was April 29, 2004. For this submittal two contiguous areas were combined and one area added. The 24 hr rainfall has been amended to reflect the rainfall per NOAA isopluvials. The area drawings have been revised to include perimeter dimensions for reference. Because of the irregular shapes, the square footage used in the containment calculation is taken from the more precise AutoCAD area calculation.

Sincerely,

//original signed by//

Kevin Kayse



enclosure



Containment System Calculation Result Summary

<u>Area</u>	<u>Actual Wall Height</u>	<u>Percent Over</u>
Area A1	24	6
Area A2	15	
Areas B and C	24	
Area D	24	
Area E Non-Acid	9	
Area E Acid	16	
Area F	26	15

As stated in the cover letter, the containment systems meet the requirements of CCR Title 22, Division 4.5, Chapter 14, Article 9, Section 66264.175.

Calculation notes and basis for the calculations are summarized on the following page. The calculations were performed and organized by system. A drawing of each system and the details of the calculations follow the notes page. They include container listings, sizes, volumes, and the containment wall calculation summary.



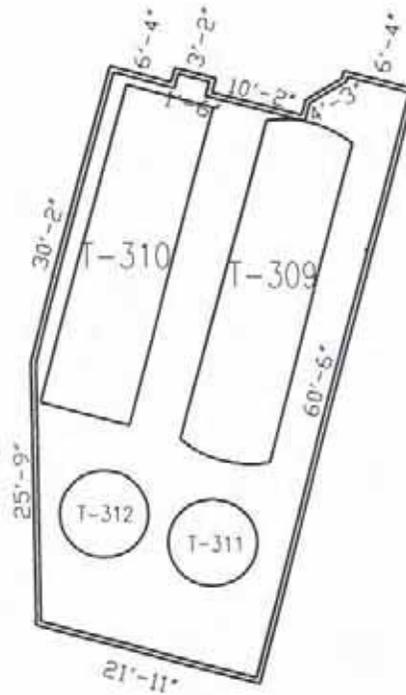
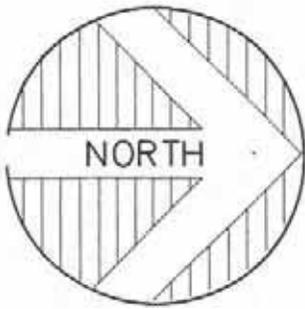
Calculation Notes and Basis

1. The containment system shall have sufficient capacity to contain precipitation from a 24-hour, 25-year storm (6.0 inches accumulation) plus 10% of the aggregate volume of all containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.

Note: The rainfall was taken from Figure 41, ISOPLUVIALS of 25-YR 24-HR Precipitation for southern half of California in tenths of an inch, NOAA ATLAS 2, Volume XI, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, Office of Hydrology.

2. Run-on into the containment system from adjacent areas is prevented.
3. A base shall underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.
4. Dimensions, including wall heights and physical size of containment areas, were field checked against existing plot plans for use in the calculations. AutoCAD 2002 software was used to calculate the areas. The AutoCAD calculations from the scaled drawings are precise. For reference, dimensions are shown on the individual drawings, but are not as precise as the software would calculate.
5. Tank sizes and volumes were taken from tables provided by D/K Environmental and spot checked for accuracy.
6. A thorough walkdown of the facility was made on three occasions – to gather data and to verify critical dimensions/data.
7. Several areas have the potential to store either drums or totes. The containment calculations were performed to allow for either, and the containment was determined to be adequate for either. These instances are detailed in the notes for each area as applicable.

Area A1



SURFACE AREA = 1557 S.F.

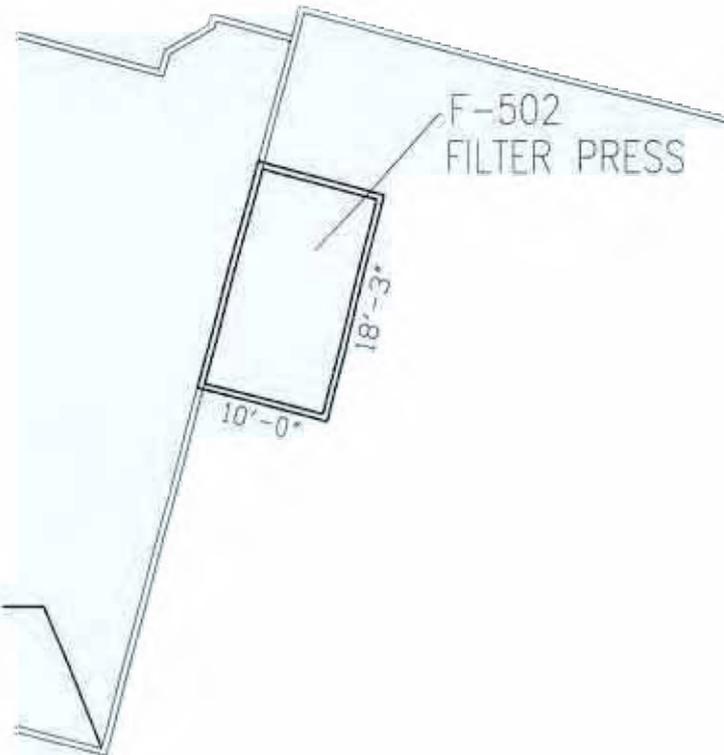
Area A1

Tank Number	Diameter (ft)	Height (ft)	Area (ft ²)	Volume (ft ³)	Displaced Area (ft ²)
T-310	9	30.5	275	1,945	4
T-309	9	30.5	275	1,945	4

Sum of Volumes	4,619 ft ³
10%	462 ft ³
Largest Tank Volume	1,945 ft ³
Governing Volume	,945 ft ³
Total Displaced Area	108 ft ²
Total Contained Area	,557 ft ²
Wall Height Required	22.6 in
Actual Wall Height	24 in
Percent Over	6%



Area A2



Area containment Wall (Reference)

SURFACE AREA = 182 S.F.

Area A2

Equipment Number	Width (ft)	Height (ft)	Length (ft)	Volume (ft ³)	Displaced Area (ft ²)
F-502	3.5	3.5	5	61	0

Sum of Volumes 61 ft³

10% 6 ft³

Largest Volume 61 ft³

Governing Volume 61 ft³

Total Displaced Area 0 ft²

Total Contained Area 182 ft²

Wall Height Required 10 in

Actual Wall Height 15 in

Percent Over 50%

Areas B and C

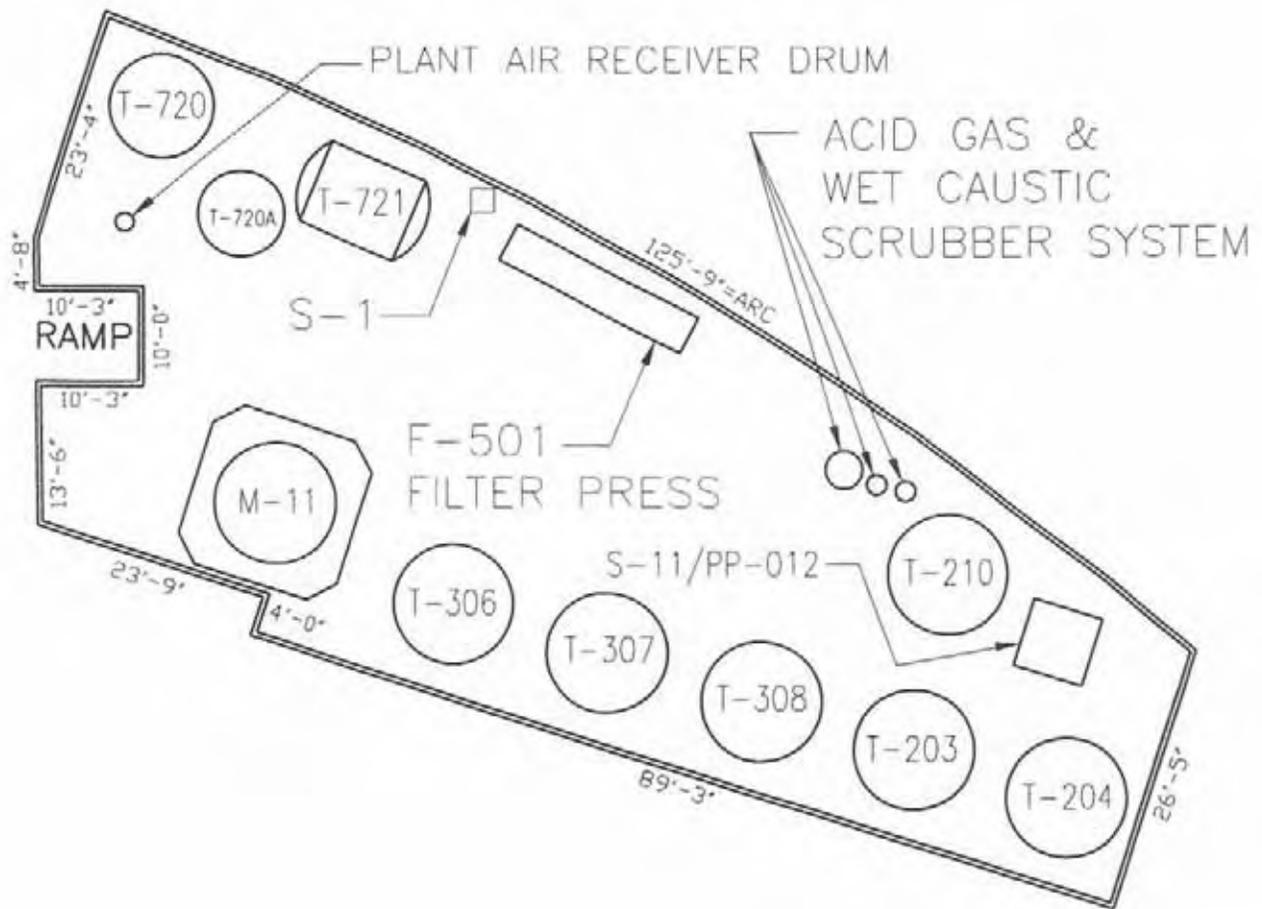
Ramps		330
4x10	80	

Sum of Volumes	22,509 ft ³
10%	2,251 ft ³
Largest Tank Volume	4,398 ft ³
Governing Volume	4,398 ft ³
Total Displaced Area	2,962 ft ²
Total Contained Area	9,983 ft ²
Wall Height Required	16 in
Actual Wall Height	24 in
Percent Over	50%

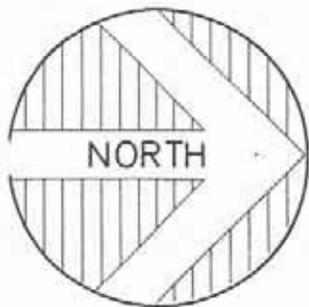
Notes:

Items with no volume shown are in non-hazardous service. The calculation was performed for 14 totes instead of 50 drums so that either could be stored. The required wall height is 16".

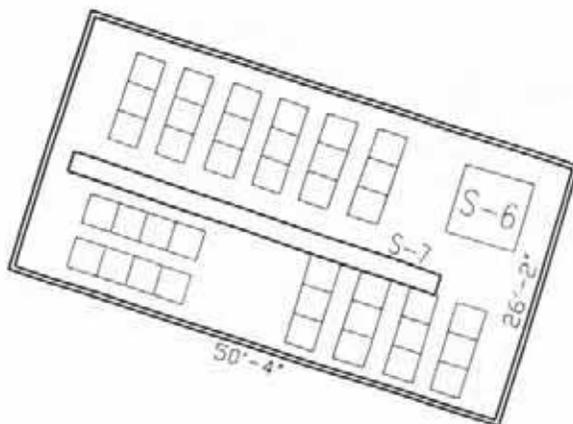
Area D



SURFACE AREA = 5032 S.F.



Area E Non-Acid



SURFACE AREA = 1317 S.F.

Area E Non-Acid

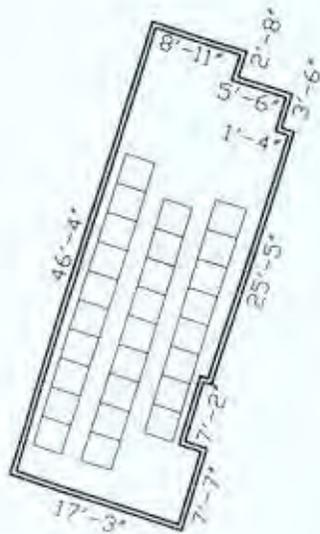
Drums	Diameter (ft)	Height (ft)	Area (ft ²)	Tank Volume (ft ³)	Displaced Area (ft ²)
304	1.9		3	2,235	439

Sum of Volumes	2,235 ft ³
10%	224 ft ³
Largest Tank Volume	7 ft ³
Governing Volume	224 ft ³
Total Displaced Area	439 ft ²
Total Contained Area	317 ft ²
Wall Height Required	3 in
Actual Wall Height	9 in
Percent Over	194%

Notes:

304 drum count based on 38 pallets double-stacked. A second calculation was also made for 76 totes at 275 gallons each so that either could be stored. The wall height required is 5 inches.

Area E Acid



SURFACE AREA = 711 S.F.

Area E Acid

Drums	Diameter (ft)	Height (ft)	Area (ft ²)	Tank Volume (ft ³)	Displaced Area (ft ²)
216	1.9		3	1,588	312

Sum of Volumes	1,588 ft ³
10%	159 ft ³
Largest Tank Volume	7 ft ³
Governing Volume	159 ft ³
Total Displaced Area	312 ft ²
Total Contained Area	711 ft ²
Wall Height Required	5 in
Actual Wall Height	16 in
Percent Over	235%

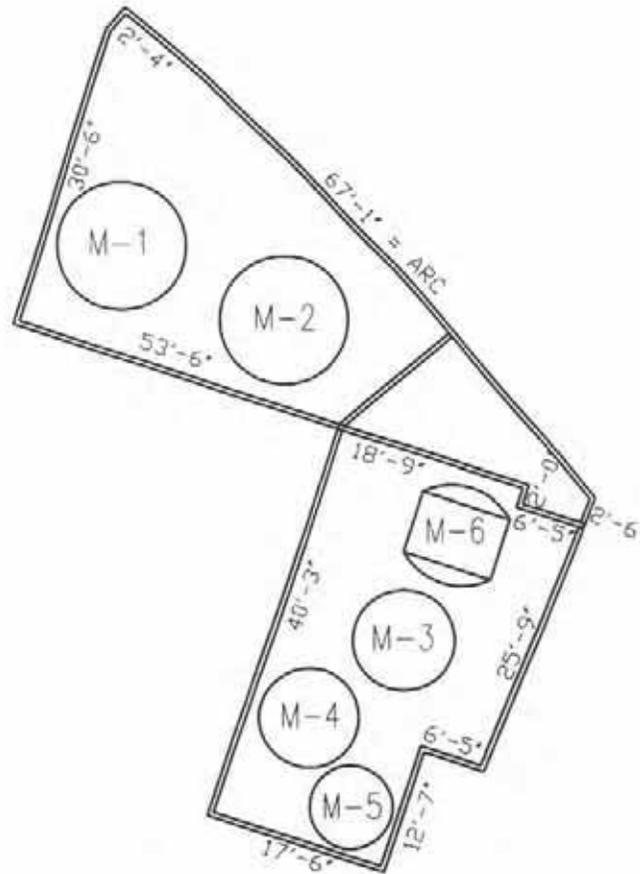
Notes:

216 drum count based on 27 pallets double-stacked. A second calculation was also made for 54 totes at 275 gallons each so that either could be stored. The wall height required is 9 inches.



Area F

NOTE:
THE TWO INTERNAL WALLS CONTAIN OPENINGS



SURFACE AREA = 1969 S.F.

Area F

Tank Number	Diameter (ft)	Height (ft)	Area (ft ²)	Volume (ft ³)	Displaced Area (ft ²)
M-1	12	15	113	2,028	4
M-2	12	23	113	2,601	113
M-3	10	15	79	1,178	95
M-4					

Sum of Volumes	8,210 ft ³
10%	821 ft ³
Largest Tank Volume	2,601 ft ³
Governing Volume	2,601 ft ³
Total Displaced Area	276 ft ²
Total Contained Area	1,969 ft ²
Wall Height Required	23 in
Actual Wall Height	26 in
Percent Over	15%

Notes:

A portion of this area is covered, and the rainfall coverage is adjusted accordingly.

Appendix C

Closure Sampling Plan

1.0 INTRODUCTION

The Closure Sampling Plan was prepared to address those sampling activities which are not part of routine operation at DKE.

2.0 SAMPLING OBJECTIVES

The wipe samples, chip samples, or rinseate samples for tanks, structures, equipment, and secondary containments are to demonstrate that the decontamination process has been sufficient that these items can either be sent offsite for disposal or recycle; left at the site after closure; or that further decontamination is required during the closure process.

The objective of the soil investigations is to identify the nature and extent, if any of soil contamination and to provide the data needed to determine if soil remediation is required during closure.

3.0 SAMPLE COLLECTION

This section discusses the field methodology to be used in collection of each type of sample including: wipe samples, chip samples, rinseate samples, soil boring samples, and soil vapor samples to be collected to confirm the removal of contamination.

3.1 WIPE SAMPLING

Wipe samples will be used for evaluation of non-porous surfaces such as tank and other equipment interiors as well as epoxy coated concrete. Samples will be taken using sterile gauze or ash-less analytical filter paper moistened with distilled water or pre-moistened sampling wipes. The size of sampling wipes must be reviewed with the laboratory to ensure that samples will contain a high enough concentration for detection of contaminants.

Each wipe sample must represent 100 cm² of surface area. A template with a 100 cm² opening shall be placed at the sampling location surface. The templates used can be of varying shapes (i.e., square, rectangle, etc) depending on the need. Each template must either be new or decontaminated before use to prevent cross contamination. New disposable gloves or decontaminated stainless steel forceps shall be used to hold each wipe as the entire surface within the template is wiped with firm strokes, first in a vertical then horizontal motion. The wipe sample will then immediately be placed into a small vial or bottle and sealed with a Teflon-lined cap. The sample shall be properly labeled then placed into a cooler and chilled to 4°C for transport to the laboratory.

One wipe blank sample shall be prepared each day of sampling. In the case of

remoistened wipes, the wipe will be removed from its wrapper then immediately placed into the sample container. In the case of other wipes, they will be wetted with distilled water prior to being placed into the sample container.

3.2 CHIP SAMPLING

Chip sampling shall be used for all coated and uncoated (non-epoxy coated) concrete surfaces which are porous to some chemicals.

Samples will consist of the top one-inch of a 100 cm² area (i.e., 10 cm by 10 cm) which should be marked out prior to sampling with a template. The sample shall be chipped out of the surface using a new or decontaminated chisel or other appropriate equipment. The material will be placed into a sample container and sealed with a Teflon-lined cap. The sample shall be properly labeled then placed into a cooler and chilled to 4°C for transport to the laboratory.

Chip samples shall be taken from locations of potential contamination (former staining or cracks in concrete surfaces) with one or more samples taken from each containment area. The number of samples will be based on 50-foot centers (each sample representing 2,500 square feet of surface). However, the number of samples may be modified depending on conditions observed during the closure process.

3.3 RINSEATE SAMPLING

The use of rinseate samples for confirmation of decontamination shall be used for equipment that has interior surfaces that are not accessible such as piping and pumps. For such equipment, once decontamination (steaming or water flush) is complete fresh clean water is flushed through the equipment (final rinse) and a sample of this water is taken. The water is collected into laboratory-supplied containers (with appropriate preservatives) including zero headspace VOA bottles (for VOCs).

3.4 SOIL VAPOR SAMPLING

This section discusses the soil vapor sampling methodology to be used at the site.

The soil vapor sampling program will follow the January 13, 2003 Advisory issued or the most current Advisory issued by the Los Angeles Regional Water Control Board and the Department of Toxic Substances Control. The protocol is provided as an attachment under the heading of SOP #1. Soil vapor samples will be collected from two levels of depth, 7- and 14 feet bgs, at each location. If it is suspected that contaminants maybe at a greater depth, additional soil vapor samples will be taken accordingly.

A mobile laboratory will be used to analyze the vapor samples for VOCs by EPA

Method 8260B. Quality control samples for the mobile lab will be collected at a 5% frequency. Therefore, every 20th sample will have a duplicate sample collected and analyzed by EPA Method 8260B. Summa canister samples will be collected at locations where mobile lab analyses show the presence of VOCs, and especially where the highest and lowest concentrations of chlorinated hydrocarbons are detected. Five percent of the samples, collected in a Summa canister, will be submitted to a fixed based State-certified laboratory for TO-14 analysis with tentatively identified compounds (TICs).

The vapor probe locations will be abandoned using a bentonite or slurry backfill according to local requirements.

3.5 SOIL SAMPLING

This section discusses the soil sampling methodology to be used at the site. Detailed SOPs for sample collection using hand auger, hollow stem auger and Direct Push Technology are provided in the Appendix under SOPs # 2, 3 and 4, respectively.

For each boring location, separate soil samples will be taken at the soil surface, at a 3 foot depth, at a 5 foot depth, at a 10 foot depth, and every additional five feet to a total depth of 20 feet to allow partial delineation of contamination which may be present. Additional samples will be collected at any major lithologic breaks. A two inch concrete core shall be drilled at these locations to provide access to the underlying soil surface.

Only samples from the top 10 feet will be initially analyzed. However, if the 15 or the 20 foot samples, or samples collected at major lithologic breaks are fine grained, have obvious staining, odors, or elevated PID readings, those soil samples will also be analyzed by the laboratory regardless of the results from the top 10 feet. The site geologist will examine the samples and select a portion to be sent to the lab for analysis, based upon lithology, color, odor, etc.

The remaining samples shall be held by the lab at 4°C until the results of the initial samples are obtained. If the results of the 10 foot sample yields values above the industrial PRGs (or background as appropriate), then the deeper samples will be analyzed. Holding times shall not be exceeded pending determination of analyses. Extraction of samples may be required. If the 20 foot sample yields results above industrial PRGs, a determination to return to the boring location and take deeper samples shall be made based on either DTSC direction or the result of a preliminary risk assessment.

The choice of specific soil sampling method, either hand auger, hollow stem drilling and Direct Push Technology shall be made at the time of closure based on access and soil conditions (i.e., hand auger shall be used if soils permit).

At a minimum, one equipment blank will be prepared each day of soil sampling. One trip blank will be used for shipping containers containing samples to be analyzed for VOCs. Duplicate samples will be collected at the rate of 1 duplicate for every twenty samples collected (i.e., 5%).

4.0 SAMPLE MANAGEMENT

Sections 4.1, 4.2, 4.3, and 4.4 respectively present the methodology for QA/QC Sample Generation; Sampling Logs and Labeling; and Disposal of Sampling- Derived Wastes.

4.1 QA/QC SAMPLE COLLECTION

One trip blank (TB) will be used for shipping containers containing samples to be analyzed for VOCs and one equipment blank (EB) will be prepared or collected for each day of sampling. The TB will be generated by the laboratory using deionized water before the sample containers are sent to the field. The trip blank will be sealed, placed in the cooler, and accompany the empty sample containers to the field. It will not be opened in the field, but just kept with the other samples and transported back to the laboratory in the cooler. The trip blank checks for contamination from inadequate sample container cleaning and from cross-contamination from the other containers and the cooler.

The EB will be prepared by sampling personnel by pouring deionized water over sampling equipment after the standard cleaning procedure is followed. The EB checks the thoroughness of the cleaning procedure and the extent of cross-contamination between samples

Field duplicate (FD) samples will be collected at the rate of 1 FD per 20 soil samples collected (i.e. 5%).

4.2 SAMPLING LOGS AND LABELING

Field Log Book: A geologist will be on site at all times throughout the course of investigation. The geologist will record general information about each sampling event and specific information about each sample in a field logbook at the time of sampling. All entries will be made using permanent ink. Errors will be corrected by drawing a line through the entry and entering the correct information. Any changes will be initialed and no entries will be completely covered so they are unreadable.

General sampling information will be recorded in sufficient detail so that such information can be reconstructed at a later time. On a facility map, all sample locations will be noted showing linear dimensions between all sample locations and surface landmarks. Where applicable, the following general sampling information about each sampling event will be recorded in the field log book:

- Facility name
- Purpose of sampling
- Location at sampling site
- Field contact
- Field sample log
- Description of sampling procedures
- Date and time of collection
- Weather and other pertinent conditions at time of sample collection
- Sample types (wipe, rinseate, chip, vapor, soil)
- Soil classification (when applicable)
- Field measurements and relevant observations
- Photos, if any
- Sampling personnel present
- Level of personal protective equipment
- Signature of person responsible for sampling

Field Sample Log: The field sample log in the field logbook, which serves as a record of specific sample information, will include the following:

- Sample Number
- Sample Location
- Depth (soil)
- Date
- Time
- Sample Description (wipe, rinseate, chip, soil vapor, or soil)
- Monitoring Data (OVA reading odor, appearance)

Sample Labels and Seals: All sample containers shall be sealed and labeled with the following information:

- Sample Number
- Sample Date
- Sample Location
- Depth (for soils)
- Project Number
- Time
- Sample Type (wipe, rinseate, chip, vapor, soil)
- Handling Precautions
- Analytes
- Laboratory
- Initials of Sampling Personnel

Sample Custody: Sample containers (bottles, bags, or sleeves) will be labeled and

placed in a cooler with ice or frozen cooler packs (e.g., Blue Ice). In accordance with "Test Methods for Evaluating Solid Waste, Physical Chemical Methods," SW-846, 3rd edition, USEPA, 1987 (SW-846), a Chain of Custody (COC) will be filled out to document sample possession from the time of collection until the samples are analyzed. The record also serves as a sample inventory and analysis order form. When the samples are transferred from sampling personnel to a courier, the COC will be signed by both parties. The COC will be included with the analytical data in an appendix to the report.

4.3 DISPOSAL OF SAMPLE DERIVED WASTES

The disposal of investigation-derived materials will be conducted in accordance with applicable California and Federal regulations. It is anticipated that both liquid and solid materials will be produced. Liquids will be produced by equipment decontamination. They will be shipped off-site. Soil boring will generate soil cuttings, which will be containerized or placed on plastic and covered. The field sample results will be evaluated to determine if the cuttings meet hazardous waste criteria. If the soil meets the hazardous waste criteria, it will be transferred to roll-off bins or railcar gondolas and shipped off-site to an appropriate hazardous waste treatment or disposal facility.

5.0 SAMPLING SPECIFICS

5.1. SAMPLE LOCATIONS

5.1.1 Tanks and Other Equipment

Tank and Large Equipment wipe samples will be taken from the center of the bottom and on the north side of the shell or side, approximately one third of the height of the shell above the shell - bottom seam.

Two wipe samples will be taken from the interior of each of the process equipment item. These locations shall include the bottom and one side surface, except for F-501 and F-502, which will be wipe sampled on the third plate from each end.

5.1.2 Sumps, Secondary Containments, Pads, and Soil

Since tanks are located on an above-ground, raised, concrete pedestal which themselves sit on top of an additional 12-24 inches of concrete, samples will be taken adjacent to the tanks and major equipment items located within their containment areas after their removal as well as areas of obvious surface contamination. Remaining sample locations (if needed) will be chosen by DKE, the independent Professional Engineer providing certification of the closure, and DTSC personnel (if available).

For each sump boring location, separate soil samples will be taken at the soil surface, at a 3 foot depth, at a 5 foot depth, at a 10 foot depth, and every additional five feet to a total depth of 20 feet.

Since Sump 2 and 9 are filled with concrete, the boring location will be located adjacent to those Sumps.

If the sumps have inlet and outlet piping, soil samples will be collected beneath the inlet and outlet piping connection to the sumps.

Sample locations will be measured in the field and noted on a scaled map of the area.

5.2 SAMPLE DEPTHS

Soil samples will be taken for each boring at the following depths:

- Immediately below the concrete and soil interface
- 3 feet below the interface
- 5 feet below the interface
- Every five feet or major lithologic break to a total depth of 20 feet.

Only samples from the top 10 feet will be initially analyzed. However, if the 15 or the 20 foot samples, or samples collected at major lithologic breaks are fine grained, have obvious staining, odors, or elevated PID readings, those soil samples will also be analyzed by the laboratory regardless of the results from the top 10 feet. The remaining samples shall be held by the lab at 4°C until the results of the initial samples are obtained. If the result of the 10 foot sample yields values above the industrial PRGs (or background as appropriate), then the deeper samples will be analyzed for those analytes. Holding times shall not be exceeded pending determination of analyses. Extraction of samples may be required. If the 20 foot sample yields results above industrial PRGs, a determination to take deeper samples shall be made based on either DTSC direction or the result of a preliminary risk assessment.

5.3 ANALYTICAL METHODS

The analytical methods and associated analytes/properties to be used for evaluation of each type of sample are presented in Table 4. The following sections describe the basis for selection of analytes for each type.

5.3.1 Wipe Samples

Wipe samples are appropriate for non-volatile contaminants only. Therefore, these samples will be analyzed for those constituents common with the waste managed within the various hazardous waste management units. Table 4 references the

analytical methods used for wipe samples.

5.3.2 Chip Samples

Table 4 references the analytical methods used for chip samples. Chip samples will be analyzed for total (TTLC) metals or RCRA metals as appropriate, semi-volatile organics, and TPH. For all sumps and containment areas being removed, Organochlorine Pesticides, PCB analysis shall also be included.

5.3.3 Rinseate

Table 4 references the analytical methods used for rinseate samples. Rinseate samples shall be analyzed for those constituents common with the waste managed within the various hazardous waste management units.

5.3.4 Soil Samples

Table 4 references the analytical methods used for soil samples. Soil samples shall be analyzed for those constituents common with the waste managed within the various hazardous waste management units.

5.3.5 Soil Vapor Samples

A mobile laboratory will be used to analyze the vapor samples for VOCs by EPA Method 8260B. Quality control samples will be collected at a 5% frequency. Therefore, every 20th sample will have a duplicate sample collected and analyzed by EPA Method 8260B at the mobile lab. Summa canister samples will be collected at locations where mobile lab analyses show the presence of VOCs, and especially where the mid and lowest concentrations of chlorinated hydrocarbons are detected. Five percent of the samples, collected in a Summa canister, will be submitted to a fixed based State-certified laboratory for TO-14 analysis with tentatively identified compounds (TICs).

5.4 CERTIFIED LABORATORY

The laboratory or laboratories chosen for all analysis shall be certified by ELAP of the California Department of Health Services for all required analytical methods.

SOP #1 Soil Vapor Sampling Protocol

Geoprobe[®], Strata probe[®], or a similar direct-push sampling technology is the technology of choice used for soil vapor sampling. Standard operating procedures for direct-push soil vapor survey below. Direct-push rigs may be truck/van mounted, track-mounted, or mounted on limited access platforms (electric carts, ATVs), etc. Push rigs depend upon the static weight of whatever they are mounted on to push/hammer pipe into the ground. A cart-mounted rig obviously has less pushing power than a truck-mounted rig because it weighs less. Some cart or hand-truck-mounted push rigs are bolted to the ground or floor to increase their depth rating. The total depth (TD) attainable by push rigs is dependent upon many other factors, not the least of which is the grain size of the soil being penetrated. Gravel, pebbles, and cobbles generally result in "refusal". Ironically, very fine dry silt-sized sand particles (called "desert flour") will often result in "refusal". The size of the hammer (measured in foot-pounds) has an effect upon drilling depth, with the larger hammer resulting in a greater the depth of penetration (generally). Hammer power ranges of 90-, 150-, 250-, and 450- foot-pounds are common. The arrangement of the hydraulic rams (the ones that move the hammer up and down and pull the pipe out of the ground) is critical to depth rating. Hydraulic rams push better than they pull. On some rigs the rams are built upside down so that their pull power is greater than their push power. The pullback force to extract the pipe from the ground can exceed 30,000 foot- pounds.

Direct-push rigs typically push a hollow steel rod 1 7/8-inches in outer-diameter (called "A-rod") with a hydraulic oil-actuated hammer. Hydraulic hammer systems are capable of directional drilling into the subsurface at up to 37.5 degrees. Hand-held systems are capable of horizontal drilling. Most truck- or cart-mounted systems utilize standard 48-inch-long (4 feet) pipe and/or tools. Hydraulic hammer systems mounted on hollow-stem auger rigs are capable of advancing longer tools into the subsurface. Some hollow-stem systems have up to a 12-foot-long stroke.

Soil vapor sampling systems range from simple to complex. Simple, real time measurements with a photo ionization detector (PID) are acquired by driving a steel rod into the ground with a roto-hammer. The bottom of the rod is perforated to allow soil vapor to enter the pipe. A PID is attached to the pipe via Teflon[®] tubing. The pump in the PID draws vapor into the machine via the tubing, an analysis is made, and a reading is recorded by the technician. The pipe is pulled from the ground with an automobile bumper jack. This type of soil vapor sampling is common at landfills.

At sites where deeper samples are required, multiple depths are needed, or RWQCB/DTSC protocols are required (January 13, 2003 Advisory), some version of a proprietary system developed by Geoprobe[®] using driven steel rods is employed. This system has a retractable screen located behind the drive tip. When the target depth is reached, the push rods are pulled up about 2 inches, exposing

the screen to the subsurface. Teflon™ tubing is threaded down the push rods. A special threaded fitting at the end of the tubing is screwed into the top of the screen. Hydrated bentonite is placed around the rod where it exits the ground to seal the annular space between the rod and the ground and to minimize the risk of ambient air diluting the soil vapor sample. Similarly, bentonite is placed at the top of the rod around the Teflon™ tube where it exits the rod. A pump is used to purge ambient air out of the Teflon™ tubing. Three initial samples are collected using three different purge volumes and the results of each compared. The purge volume resulting in the highest concentration levels of VOCs is then used for the site. Samples are collected in glass cylinders wrapped in aluminum foil to minimize volatilization by direct sunlight. Samples are analyzed within 30 minutes of collection in a mobile laboratory on site. Summa canisters are used when the sample is submitted to a fixed-base laboratory.

The RWQCB/DTSC January 13, 2003 Advisory on soil vapor sampling addresses the quality of the sample collected. Sample "quality" includes the seal between the probe piping and the soil (a good seal prevents ambient air from diluting the sample), the quality of the sample container (preferably glass and Teflon™), the holding time in the syringe (the sample should be analyzed immediately), and the amount of soil moisture that is present during sampling (too much moisture precludes the collection of an adequate sample), and the proper purging of the Teflon™ sampling tube to acquire a representative sample and to prevent residual cross-contamination.

Soil vapor sampling and analysis will detect volatile organic compounds and is especially effective in detecting halogenated (chlorinated) compounds. It is not effective in detecting metals, pesticides, or very long-chain hydrocarbons.

SOP #2 Hand Auger Sampling Protocols

Introduction

Hand auger sampling equipment consists of a hand-auger system and a slide-hammer sampler (colloquially called a "slam-hammer"). The hand-auger system typically consists of an auger barrel (or "bucket"), rod and extensions, and a T-handle. Rod/rod and rod/bucket connections may either be threaded or "quick-disconnect". The T-handle may be ratcheted. Auger barrels are available that are specifically designed for use in clay, sand, and mixed lithology terrains. Hand auger rods and related equipment is typically formed of stainless steel, in 4-foot lengths. Sample barrels are 18-inch long, and 2-inches or greater in diameter. The barrels have two cutting tabs at the bottom of the bucket. A drive sampler consists of a heavy handle that slides up and down on a steel rod. The other end of the steel rod has a threaded fitting that accepts a single-sleeve sampling barrel.

The appropriate bucket is attached to the hand auger handle. The handle is turned in a clockwise direction (especially if the handle is ratcheted) until the bucket is filled. The bucket should be emptied onto plastic sheeting (if being returned to the borehole as backfill) or into an approved container. The bucket may be tapped lightly to help dislodge the cuttings but should not be **POUNDED** on. Pounding distorts the shape of the barrel and results in the barrel sticking in the borehole. The hand auger may be turned upside-down to empty the barrel, however the practice of slamming the T-handle onto the ground is discouraged. This results in a damaged handle.

Once the sample depth is reached, the drive sampler is fitted with the appropriate number of extensions with the sampler at the bottom. The sampler is placed at the bottom of the borehole. A crayon mark or piece of tape should be put on the extension rod about 6-inches above the ground level. This marks the minimum distance the sampler should be driven into the ground to fill up the sample sleeve. The handle is raised, and then dropped, repeatedly until the sampler has been driven down the appropriate distance. It is important not to wiggle the slam hammer excessively while hammering for two reasons: the sample may fall out of the sampler and/or the connection between the rod and sampler may break. On occasion (e.g., excessively dry sands), samples may fall out of the drive sample bucket. When this occurs, soil samples may be collected by driving a sample sleeve directly into the full auger barrel, or by emptying the barrel contents into a sampling jar. This technique may also be used if the analytes of concern are not volatile organic compounds (VOCs).

SOP #3 Hollow STEM AUGER (HSA) DRILLING AND Soil Sampling Protocols

Hollow stem auger (HSA) drilling rigs are generally truck-mounted and diesel-powered. Each 5-foot-long auger flight consists of a hollow center pipe wrapped with cutting blades in a "corkscrew" fashion (hence the name "hollow stem"). The string of connected flights is rotated and pressed down by hydraulic rams to penetrate the subsurface. The bit is slightly larger than the diameter of the drill string and is armed with peg-like "teeth" that grind the soil into soil cuttings. The spinning auger flight moves drill cuttings upwards to the surface, which clears the soil cuttings from the borehole. A California modified split-spoon sampler or solid barrel sampler is generally utilized for soil sample collection. Augers will be sized to accommodate the well casing diameter, if a well is to be installed in the borehole. A center plug is used to prevent super-saturated sands (called "heaving sands") from entering the inside of the auger string as the borehole is advanced. No lubricants, circulating fluid, drilling moods, or other additives are used during drilling. Occasionally water is introduced down the center of the drill string to cool off the drill bit, to loosen a sticking drill bit, or to facilitate the cutting action of the drill bit.

Preparation Duties:

Final soil boring locations will be marked or staked in the field based upon phase-specific approved sampling locations, as directed by the Field Team Leader. Utility clearance will be required for each drilling location to identify any subsurface utilities prior to drilling and sampling.

All drilling and sampling equipment will be decontaminated with a steam-cleaner prior to drilling. This equipment includes all drill pipe, auger flights, split-spoon samplers, brass sleeves, stainless steel bowls and spoons, tools, and unpackaged well screen and casing. Steam cleaning will be conducted after placing equipment, tools, and non-packaged screen and casing on racks, in tubs, on plastic, or otherwise out of contact with the ground surface. After steam cleaning is completed, cleaned equipment will be placed on plastic or otherwise segregated to prevent cross-contamination until used. Borings will be located according to the Work Plan. No borings will be drilled within 5 feet of marked underground utility lines or within 10 feet of active overhead power lines. Boring locations will be adjusted, as necessary.

Because of the number of analytical methods that will be performed on each sample, a fairly large sample volume will need to be collected. Therefore, two additional sample rings will be collected immediately adjacent to the location of the first sample ring. The three 6-inch sample rings represent a single sample. The middle ring will be immediately sampled for VOCs follow EPA 5035 protocol.

Two subsamples will be collected using an Encore[®] sampler or equivalent. Once collected, the steel ring will immediately be capped, labeled and placed in an iced cooler. Once the rings arrive at the analytical laboratory, the laboratory will homogenize material into a uniform single sample from which splits will be taken for each of the requisite analyses.

Once the soil sample has been acquired, it is necessary to handle it in such a way as to remain a representative sample, that is, to handle it in such a way as to retain all its chemical and physical attributes during its handling and transport to the laboratory for analysis. Therefore, it is necessary to get the sample "on ice" as soon as is possible and to disturb it as little as possible. The sampling person should be wearing a fresh pair of nitrile gloves. Sample sleeves should be full - air space at the end of the tubes may result in lost volatile chemical compounds. If there is an air space, it should be filled with cuttings from the same sampling horizon, or some inert soil, or, as a last resort, any available soil. This is said with the realization that in the lab, the soil from the sleeve will be extruded and sampled from the middle part of the tube.

Sleeved samples are to be capped by Teflon sheets and plastic end caps immediately after acquisition. The field name, date, time, and analyses should be written on both ends of the sample (on the end caps) in indelible ink. For orientation, an arrow may be written so as to indicate the top or bottom of the sample. Related samples should be "bagged" in large freezer bags, preferably the "Ziploc" variety to protect the ink on the sample identification label from running or blurring when placed in ice. For example if two or more samples are collected from the same sampling horizon, they may be bagged together. The bags are then placed in a cooler filled with ice. The "blue ice" that is available rarely keeps the cooler at 4°C as it should be.

All of the above should happen prior to any "paper work". Once the sample is in the cooler, then the chain-of-custody may be filled out. Any notes should then be written in the field book.

The above comments are made specifically for samples containing volatile or semi-volatile chemical compounds that are the analytes of concern. If, for example, heavy metals or general minerals (non-volatile) are of interest, the handling protocols are a bit more relaxed. Plastic bags or glass containers are appropriate as sample containers in these instances. It is important to match the containers to the sampled media. For example, it would not be prudent to collect a highly acidized soil sample in a plastic baggie.

The final step in the sampling process is the transferal of the sample to the laboratory using a completed COC. This shows that the sample has been under someone's control from the time it was sampled until delivery to the lab.

SOP #4 Direct Push Technology (OPT) and Soil Sampling Protocols

Direct-push technology (DPT) rigs may be truck/van mounted, track-mounted, or mounted on limited access platforms (electric carts, ATVs), etc. Push rigs depend upon the static weight of whatever they are mounted on to push/hammer pipe into the ground. A cart-mounted rig obviously has less pushing power than a truck-mounted rig because it weighs less. Some cart or hand-truck-mounted push rigs are bolted to the ground or floor to increase their depth rating. The total depth (TD) attainable by push rigs is dependent upon many other factors, not the least of which is the grain size of the soil being penetrated. Gravel, pebbles, and cobbles generally result in "refusal". Ironically, very- fine, dry, silt- sized sand particles (called "desert flour") will often result in "refusal" as well. The size of the hammer (measured in foot-pounds) has an effect upon drilling depth, with the larger hammer resulting in a greater the depth of penetration (generally). Hammer power ranges of 90-, 150-, 250-, and 450-foot-pounds are common. The arrangement of the hydraulic rams (the ones that move the hammer up and down and pull the pipe out of the ground) is critical to depth rating. Hydraulic rams push better than they pull. On some rigs the rams are built upside down so that their pull power is greater than their push power. The pullback force to extract the pipe from the ground can exceed 30,000 foot- pounds.

Direct-push rigs typically push a hollow steel rod 1 7/8-inches in outer-diameter (called "A-rod") with a hydraulic oil-actuated hammer. Hydraulic hammer systems are capable of directional drilling into the subsurface at up to 37.5 degrees. Most truck- or cart-mounted systems utilize standard 48-inch-long (4 feet) pipe and/or tools. Hydraulic hammer systems mounted on hollow-stem auger rigs are capable of advancing longer tools into the subsurface.

Some version of a proprietary system developed by Geoprobe[®] is used to collect soil samples with a DPT rig. If a continuous core is desired, the sampling barrel is lined with clear acetate, which fills up with soil as the barrel is driven into the ground. Coring barrels (and other samplers) are generally 1.5- to 3-feet in length and range from 1- to 3-inches in diameter. The coring barrel is retrieved and the acetate liner extruded. The site geologist examines the liner and selects a portion to be sent to the lab for analysis, based upon lithology, color, odor, etc. The remainder of the acetate liner is utilized for head-space analysis or for lithologic description (see below). The barrel is cleaned, reloaded with an acetate liner, and placed back into the borehole to be driven deeper into the ground. If depth discrete soil samples are required, a California modified split- spoon sampler or solid barrel sampler is driven into the ground to the required depth. In this case, the sampler is usually lined with brass or stainless steel sleeves. A drive point is attached to a rod, which threads through the hollow sampler and is locked into place by a steel pin. When the sampler is driven to the proper depth, the steel pin is unscrewed using thin rods, which are placed inside the A-rods. When the pin is removed, the drive tip will retract up inside the sampler as it is driven downwards,

allowing the sampler to fill with soil. The sampler is then retrieved and the sleeves extruded.

Preparation Duties:

Final soil boring locations will be marked or staked in the field based upon phase-specific approved sampling locations, as directed by the Field Team Leader. Utility clearance will be requested for each drilling location to identify any subsurface utilities prior to drilling and sampling.

All drilling and sampling equipment will be decontaminated prior to drilling. This equipment includes all drill pipe, split-spoon samplers, sleeves, and tools. After cleaning is completed, equipment will be placed on plastic or otherwise segregated to prevent cross-contamination until used. Borings will be located according to the Work Plan. No borings will be drilled within 5 feet of marked underground utility lines or within 10 feet of active overhead power lines. Boring locations will be adjusted, as necessary.

Because of the number of analytical methods usually performed on each sample, a fairly large sample volume needs to be collected. The three 6-inch sample rings are usually collected from each sampling level. If EPA 5035 sampling protocols are required, the middle ring will be immediately sampled using Encore[®] samplers. It is important to contact the laboratory to determine what it is that they require for sample size and handling. It is just as important to contact the lead regulatory agency to determine what it is that they require for sample size and handling. It is not always the same protocol for EPA 5035 sampling from site to site. For example, some regulators require that the Encore[®] samples be preserved with methanol and/or sodium bisulfate in the field. Some even require that the samples be weighed in the field. If these are required, there is a new level of preparedness required for the successful completion of the task. Once the Encore[®] samples have been collected, the remainder of that sample sleeve and at least one other (for analyses other than VOCs) will be capped, labeled and placed in an iced cooler.

Once the soil sample has been acquired, it is necessary to handle it in such a way as to remain a representative sample, that is, to handle it in such a way as to retain all its chemical and physical attributes during its handling and transport to the laboratory for analysis. Therefore, it is necessary to get the sample "on ice" as soon as is possible and to disturb it as little as possible. The sampling person should be wearing a fresh pair of nitrile gloves. Sample sleeves should be full - air space at the end of the tubes may result in lost volatile chemical compounds. If there is an air space, it should be filled with cuttings from the same sampling horizon, or some inert soil, or, as a last resort, any available soil. This is said with the realization that in the lab, the soil from the sleeve will be extruded and sampled from the middle part of the tube. Sleeved samples are to be capped by

Teflon sheets and plastic end caps immediately after acquisition. The field name, date, time, and analyses should be written on both ends of the sample (on the end caps) in indelible ink. For orientation, an arrow may be written so as to indicate the top or bottom of the sample. Related samples should be "bagged" in large freezer bags, preferably the "Ziploc" variety. For example if two or more samples are collected from the same sampling horizon, they may be bagged together. The bags are then placed in a cooler filled with ice. The "blue ice" that is available rarely keeps the cooler at 4°C as it should be.

All of the above should happen prior to any "paper work". Once the sample is in the cooler, then the chain-of-custody may be filled out. Any notes should then be written in the field book.

The above comments are made specifically for samples containing volatile or semi-volatile chemical compounds that are the analytes of concern. If, for example, heavy metals or general minerals (non-volatile) are of interest, the handling protocols are a bit more relaxed. Glass containers or sleeves are appropriate as sample containers in these instances. It is important to match the containers to the sampled media. For example, it would not be prudent to collect a highly acidized soil sample in a plastic baggie.

The final step in the sampling process is the transferal of the sample to the laboratory using a completed COC. This shows that the sample has been under someone's control from the time it was sampled until delivery to the lab.

Appendix D

Standard Work Procedure (DKE SWP-13101)

DKE – Operations
Standard Work Procedures (DKE SWP-13101)

**REMOVING WASTE MATERIAL FROM TANKS AND VESSELS
TO MAKE EMPTY**

Scope:

The purpose of this procedure is to define the necessary operator functions required to safely remove the contents from a tank or vessel to make it empty. This procedure will also detail the necessary steps to empty the tank or vessel regardless of its contents and to safely and efficiently complete the tasks.

Process Description:

Emptying a tank or vessel is a process in which the contents within that particular tank or vessel are completely evacuated using a process pump and/or a vacuum tanker truck to transfer the content to another tank or vessel or for transport off-site for safe management. The empty tank or vessel may then be cleaned, if necessary, with pressured water and detergent, to allow for entry to perform routine internal inspection – visual and or ultrasonic, and maintenance repairs. The empty tank or vessel may also be placed in service for use in the various on-site activities such as CWT subcategory treatment processes.

Process Safety:

DKE's primary consideration is the employee's health and safety. Personal Protective Equipment (PPE) (hardhat, safety goggles, half/full-face air purifying respirator, appropriate Tyvek suit, rubber boots, gloves, etc.) is required for this operation. However, DKE PPE policy and guidance manual shall be utilized at all times and PPE shall be selected based on the physical and chemical characteristics of the waste material in the tank or vessel being emptied.

Again, Please follow the DKE PPE policy and guidance manual for the correct PPE requirement to manage various waste types.

Prior to starting work, the job crew leader shall locate fire extinguishers, eyewash/shower unit, evacuation route, water supply, pumps, switches, and other necessary equipment to be used. The crew leader responsible for the particular job is required to conduct a safety tailgate meeting prior to starting work. The crew leader will discuss and inform all personnel assigned to the particular job of the required PPE and the location of all emergency safety equipment.

Firefighting equipment, eyewash/shower units and evacuation route must be kept unobstructed and available for use at all times. No open flame, ignition sources, smoking, eating, or drinking is allowed at any time on the job site during this process.

DKE – Operations Standard Work Procedures (DKE SWP-13101)

Tank or Vessel Contents:

To ensure that personnel are aware of the type of waste contained within the tank or vessel being emptied, the crew leader responsible for the particular job is required to review all data such as the tank or vessel consolidation log and any laboratory analysis associated with the content of that particular tank or vessel with all personnel on the Job. Moreover, personnel assigned to the job are personally responsible for reviewing the data on the content of the tank or vessel being worked on and understanding the information. The tank or vessel may contain liquid, sludge, solids, or a combination of liquid, sludge, and solids.

Equipment:

The type of equipment utilized for safely removing the contents of a particular tank or vessel is based on the material being evacuated. However, equipment such as portable pumps, transfer hoses, fixed piping, vacuum tank trucks, Guzzler trucks, shovels, buckets, pressure-washer, DOT containers, caution tape, and signs may be utilized.

Lock-out/Block-out Tank and/or Vessel:

- Before starting work on tank or vessel, verify that all valves on interconnecting piping are closed and tagged. Any open valve on the particular tank or vessel must be reported to and addressed by the Operations supervisor on shift before proceeding.
- Verify the level in the tank or vessel via the level instrument.

Emptying Tank or Vessel:

- Verify the level in the tank or vessel designated to receive the waste material being transferred to ensure there is adequate space to prevent overflow.
- Verify compatibility of the waste material being transferred with the content of the tank or vessel designated to receive the transferred waste material. This test should be performed in the lab in accordance with the procedure for compatibility tests.
- Start transfer using pump and hoses, or vacuum tank truck and hose, as determined by job-specific requirement.
- When the level in the tank or vessel has been lowered to below the manhole/cleanout flange, remove the cover from the manhole/cleanout flange.

DKE – Operations

Standard Work Procedures (DKE SWP-13101)

- Continue to remove content from the bottom of the tank or vessel through the manhole/cleanout flange. Pressured water may be used to assist in the removal of heavy solids.
- Manage cleanout of sludge/solids in accordance with job specific instructions for the particular waste solids.
- If confined space entry is required to complete removal of the content, prepare Confined Space Entry Permit.
- Notify the Vernon Fire Department by completing a Business Notification of Confined Space Entry form and “FAX” to the Battalion Chief on duty at (323) 581-1682.
- Enter the tank or vessel, in accordance with procedure for confined space, and complete removal of the content using shovel, pressured water, squeegee, and suction hose.
- When all waste material has been removed, the inside walls and the floor of the tank or vessel may be cleaned using detergent, if needed, and the pressure washer.
- Rinsate/washwater and equipment decon-water shall be removed for proper disposal in accordance with job specific requirements and instructions.
- Used PPE shall be managed and disposed of in accordance with job specific requirements and instructions.

Procedure for Tanks or Vessels Containing Liquids:

- Check with supervisor for designated tank, vessel, or DOT container to receive the contents of the tank or vessel.
- Verify the level in the tank, vessel, or DOT container designated to receive the waste material being transferred to ensure there is adequate space to prevent overflow.
- Verify compatibility of the waste material being transferred with the content of the tank or vessel designated to receive the transferred waste material. This test should be performed in the lab in accordance with the procedure for compatibility tests.
- Review tank or vessel log and any analytical representing the tank or vessel contents.
- Wear appropriate PPE.
- Install caution tape and/or warning signs such as “men working”.
- Verify that all other tanks or vessels connected to the transfer line (piping) are blocked in.
- Open appropriate valves on tank or vessel to be filled and open appropriate valves on tank or vessel to be emptied. Tanks or vessels may be emptied by gravity flow. The waste may be pumped to a designated tank or vessel by interconnection pipe or may be pumped from the top of the tank or

DKE – Operations

Standard Work Procedures (DKE SWP-13101)

vessel using a standby pump and hose into a DOT container such as totes or vacuum tank truck for off-site disposal.

- If hoses are used:
 - Hook discharge hose from the diaphragm pump to the vacuum truck
 - Hook suction line from diaphragm pump to the tank or vessel valve.
 - Open the valve on the pump
 - Open the valve on the tank or vessel to be emptied.
 - Slowly open air to diaphragm pump.
 - Verify that there are no leaking hose connections.
- When the level in the tank or vessel has been lowered to below the manhole/cleanout flange, prior to removal of the cover from the manhole/cleanout flange, implement Confined Space Procedures.
- Prepare Confined Space Entry Permit.
- Notify the Vernon Fire Department by completing a Business Notification of Confined Space Entry form and “FAX” to the Battalion Chief on duty at (323) 581-1682.
- Once the tank or vessel is certified for entry, enter the tank or vessel, in accordance with procedure for confined space, and complete removal of the content using shovel, pressured water, squeegee, and suction hose.
- Continue to remove contents from the bottom of the tank or vessel through the manhole/cleanout flange. Pressured water may be used to assist in the removal of heavy solids.
- Once emptied, the tank or vessel will be decontaminated - washed with water or appropriate solvent. Then the decon-water will be pumped out of the tank or vessel into a designated receiving tank, vessel, or DOT container.
- If hoses and pumps are used:
 - Flush hoses and pump with water or appropriate solvent into designated tank, vessel, or DOT container.
 - Unhook hoses and store in proper area.
 - Return pump to proper storage area.

Procedure for Tanks or Vessels Containing Pumpable Sludge:

If any liquids are contained within the tank or vessel, first follow the procedure for Tanks or Vessels Containing Liquids.

- When the liquid level in the tank or vessel has been lowered to maximum ability, prior to removal of the cover from the manhole/cleanout flange, implement Confined Space Procedures.
- Prepare Confined Space Entry Permit.
- Notify the Vernon Fire Department by completing a Business Notification of Confined Space Entry form and “FAX” to the Battalion Chief on duty at (323) 581-1682.

DKE – Operations

Standard Work Procedures (DKE SWP-13101)

- Once the tank or vessel is certified for entry, enter the tank or vessel, in accordance with procedure for confined space, and complete removal of the content using shovel, pressured water, squeegee, and suction hose.
- Continue to remove content from the bottom of the tank or vessel through the manhole/cleanout flange. Pressured water may be used to assist in the removal of heavy solids.
- Manage cleanout of sludge/solids in accordance with job specific instructions for the particular waste solids.
- Once emptied, the tank or vessel will be decontaminated - washed with water or appropriate solvent. Then the decon-water will be pumped out of the tank or vessel into a designated receiving tank, vessel, or DOT container.
- If hoses and pumps are used:
 - Flush hoses and pump with water or appropriate solvent into designated tank or vessel or DOT container.
 - Unhook hoses and store in proper area.
 - Return pump to proper storage area.

Tanks or Vessels Containing Non-Pumpable Sludge:

If any liquids are contained within the tank or vessel, first follow the procedure for Tanks or Vessels Containing Liquids.

- When the liquid level in the tank or vessel has been lowered to its ability, prior to removal of the cover from the manhole/cleanout flange, implement Confined Space Procedures.
- Prepare Confined Space Entry Permit.
- Notify the Vernon Fire Department by completing a Business Notification of Confined Space Entry form and “FAX” to the Battalion Chief on duty at (323) 581-1682.
- Once the tank or vessel is certified for entry, enter the tank or vessel, in accordance with procedure for confined space, and complete removal of the content using shovel, pressured water, squeegee, and suction hose.
- Continue to remove content from the bottom of the tank or vessel through the manhole/cleanout flange. Pressured water may be used to assist in the removal of heavy solids.
- Manage cleanout of sludge/solids in accordance with job specific instructions for the particular waste solids.
- Once emptied, the tank or vessel will be decontaminated - washed with water or appropriate solvent. Then the decon-water will be pumped out of the tank or vessel into a designated receiving tank or vessel or DOT container.

Appendix E

Financial Responsibility

FINANCIAL RESPONSIBILITY

A. FINANCIAL ASSURANCE MECHANISM for CLOSURE

D/K Environmental has chosen to post a Closure Letter of Credit as its financial assurance mechanism. A copy of the irrevocable standby letter of credit is included in Exhibit A.

B. FINANCIAL ASSURANCE MECHANISM for POST CLOSURE

The D/K Environmental Closure Plan is for a clean closure and no post closure activities are planned.

C. LIABILITY COVERAGE MECHANISM

D/K Environmental has liability insurance for sudden accidental occurrences in the amount of \$1 million per occurrence with an annual aggregate of \$2 million, exclusive of legal defense costs. A copy of this policy is enclosed as Exhibit B.

D/K Env. Does not have a surface impoundment, landfill, land treatment facility, or disposal miscellaneous unit. Therefore, liability insurance for non-sudden occurrences is not required.

Financial Responsibility

Exhibit – A

Financial Assurance Letter of Credit

Bank of America



BANK OF AMERICA - CONFIDENTIAL

PAGE: 1

DATE: APRIL 27, 2007

AMENDMENT TO IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER: 3009169

AMENDMENT NUMBER 13

ISSUING BANK
BANK OF AMERICA, N.A.
1000 W. TEMPLE STREET
7TH FLOOR, CA9-705-07-05
LOS ANGELES, CA 90012-1514

BENEFICIARY
DIRECTOR, DEPARTMENT OF TOXIC
SUBSTANCES CONTROL
FINANCIAL RESPONSIBILITY UNIT
8800 CAL CENTER DRIVE

APPLICANT
D/K ENVIRONMENTAL
3650 E. 26TH STREET
LOS ANGELES, CA 90023

SACRAMENTO, CA 95826

THIS AMENDMENT IS TO BE CONSIDERED AN INTEGRAL PART OF THE ABOVE CREDIT AND MUST BE ATTACHED THERETO.

THE ABOVE MENTIONED CREDIT IS AMENDED AS FOLLOWS:

THE AMOUNT OF THIS CREDIT HAS BEEN INCREASED BY USD 25,649.00
THE AGGREGATE AMOUNT OF THE CREDIT IS NOW USD 941,684.92

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

IF YOU REQUIRE ANY ASSISTANCE OR HAVE ANY QUESTIONS REGARDING THIS AMENDMENT, PLEASE CALL 213-481-7843.

//original signed by//

AUTHORIZED SIGNATURE

THIS DOCUMENT CONSTSTS OF 1 PAGE(S).

CHERYL JEFFERSON

ORIGINAL



Department of Toxic Substances Control



Maureen F. Gorsen, Director
1011 North Grandview Avenue
Glendale, California 91201

Arnold Schwarzenegger
Governor

Alan C. Lloyd, Ph.D.
Agency Secretary
Cal/EPA

CERTIFIED MAIL

April 25, 2006

Ms. Rosemary Domino
Director, Environmental Affairs
D/K Environmental
3650 East 26th Street
Los Angeles, California 90023

Dear Ms. Domino:

On April 19, 2006, the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) completed a review of the financial responsibility file for D/K Environmental facility located at 3650 East 26th Street, Los Angeles, California 90023. The enclosed report describes the findings of the review.

All pertinent information derived from the file review is included as attachments to the report. This report will become a public document; you may request that any trade secret or facility security information be withheld from public disclosure. (See Health and Safety Code, Section 25173).

If you wish to assert the trade secret privilege after you have reviewed the report, please provide specific answers to each of the following questions for each item:

- To what extent is there knowledge of the information conveyed by the photograph/document outside of your business.
- To what extent is there knowledge of the information conveyed by the photograph/document, by employees and others in your business.
- To what extent have measures been taken to guard the secrecy of the information.
- Is the information valuable to competitors? If so, why?
- Has there been substantial monetary expenditure in the development of the information?
- Could the information be easily and properly acquired or duplicated by others?

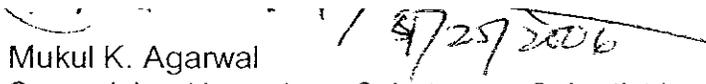
Ms. Rosemary Domino
April 25, 2006
Page 2

DTSC will review your response to these questions to determine if the information should be treated as trade secret and will notify you of its decision.

If you have any questions regarding this letter, or if you wish to meet with DTSC to discuss any questions or concern you have with the review findings, please contact Satish Gulati at (818) 551-2888.

Sincerely,

//original signed by//


Mukul K. Agarwal
Supervising Hazardous Substances Scientist I
Statewide Compliance Division
Glendale Office

Enclosure(s)

Certified Mail No.: 7005 1160 0003 8715 4435
Return Receipt Requested

cc: Ms. Ruth Williams-Morehead
Hazardous Substances Scientist
Statewide Compliance Division
Department of Toxic Substances Control
1011 North Grandview Avenue
Glendale, California 91201

Mr. Satish Gulati, AGPA
Statewide Compliance Division
Department of Toxic Substances Control
1011 North Grandview Avenue
Glendale, California 91201

FINANCIAL RESPONSIBILITY REVIEW FINDINGS

TO: *Ruth Williams-Morehead*

FROM: *Satish Gulati*

REGION: *3*

PHONE NO.: *(818) 551-2888*

For the purpose of the financial responsibility review, the results of the evaluation are good for sixty (60) days from the date of this review and are as follows:

FACILITY REVIEWED:

Facility Name: *D/K Environmental*

EPA ID No.:
CAT 080 033 681

Address: *3650 East 26th Street
Los Angeles, CA 90023*

FINANCIAL ASSURANCE FOR CLOSURE

Document Type:

Letter of Credit

Results: **(PASS)** FAIL

Document Amount Closure: *\$583,934.70*

Closure Cost Estimate: *\$571,029*

Deficiency Closure: *0*

VIOLATION:

FINANCIAL ASSURANCE FOR POSTCLOSURE

Document Type:

Results: PASS **FAIL**

Document Amount Post-closure:

Post-closure Cost Estimate:

Deficiency Post-closure:

VIOLATION:

SUDDEN LIABILITY COVERAGE

Document Type: *Liability Certificate
of Insurance*

Results: **(PASS)** FAIL

Document Amount Sudden: *\$1,000,000/\$2,000,000*

Deficiency Sudden:

VIOLATION:

See Comments

NON-SUDDEN LIABILITY COVERAGE

Document Type:

Results: PASS **FAIL**

Document Amount Non-Sudden:

Deficiency Non-Sudden:

VIOLATION:

COMMENTS

Based on the information available from the liability certificate of insurance, the facility meets the financial assurance requirements for liability.

The liability insurance policy has been requested and will be reviewed for compliance when received.

If warranted by the insurance policy review findings, this FR Review Findings Report may be amended.

//original signed//

//original signed by//

FR COORDINATOR

4/19/2006

DATE

SENORI, M J

DATE

4/19/06



Department of Toxic Substances Control



Alan C. Lloyd, Ph.D.
Agency Secretary
Cal/EPA

1011 North Grandview Avenue
Glendale, California 91201-2205

Arnold Schwarzenegger
Governor

FINANCIAL RESPONSIBILITY REVIEW FINDINGS

EPA ID NUMBER: CAT 080 033 681
FACILITY NAME: D/K Environmental
SITE LOCATION: 3650 East 26th Street
Los Angeles, CA 90023

WORK SHEET:

Closure Cost Estimate:

As per DTSC letter dated 10/2/97, the closure cost estimate was \$500,000.

3/98 = \$500,000 (The Letter of Credit established)

3/99 = \$500,000 x 1.010 = \$505,000

3/00 = \$505,000 x 1.015 = \$512,575

3/01 = \$512,575 x 1.015 = \$520,264

3/02 = \$520,264 x 1.021 = \$531,190

3/03 = \$531,190 x 1.022 = \$542,876

3/04 = \$542,876 x 1.015 = \$551,019

3/05 = \$551,019 x 1.015 = \$559,284

3/06 = \$559,284 x 1.021 = \$571,029

//original signed by//

Financial Responsibility Coordinator:

Date: 4/19/2006



Department of Toxic Substances Control



1011 North Grandview Avenue
Glendale, California 91201

Arnold Schwarzenegger
Governor



Alan C. Lloyd, Ph.D.
Agency Secretary
Cal/EPA

CERTIFIED MAIL

June 6, 2005

Ms. Rosemary Domino
Compliance Manager
D/K Environmental
3650 East 26th Street
Los Angeles, California 90023

Dear Ms. Domino:

On June 6, 2005, the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) completed a review of the financial responsibility file for D/K Environmental facility located at 3650 East 26th Street, Los Angeles, California 90023. The enclosed report describes the findings of this review.

All pertinent information derived from the file review, including documents, is included as attachments to the report. This report will become a public document; you may request that any trade secret or facility security information be withheld from public disclosure. (See Health and Safety Code, Section 25173).

If you have any questions regarding this letter, or if you wish to meet with DTSC to discuss any questions or concern you have with the review findings, please contact Satish Gulati, Associate Governmental Program Analyst, at (818) 551-2888.

Sincerely,

//original signed by//


Mukul K. Agarwal
Supervising Hazardous Substances Scientist I
Statewide Compliance Division
Glendale Office

See Next Page

Ms. Rosemary Domino
June 6, 2005
Page 2

Enclosure(s)

Certified Mail
No. 7004 2890 0000 0062 2947
Return Receipt Requested

cc: Ms. Ruth Williams-Morehead
Hazardous Substances Scientist
Statewide Compliance Division
Department of Toxic Substance Control
1011 North Grandview Avenue
Glendale, California 91201

Mr. Satish Gulati, AGPA
Statewide Compliance Division
Department of Toxic Substances Control
1011 North Grandview Avenue
Glendale, California 91201

FINANCIAL RESPONSIBILITY REVIEW FINDINGS

TO: *Ruth Williams - Morehead*

FROM: *Satish Gulati*

REGION: *3*

PHONE NO.: *(818) 551-2888*

For the purpose of the financial responsibility review, the results of the evaluation are good for sixty (60) days from the date of this review and are as follows:

FACILITY REVIEWED:

Facility Name: *D/K Environmental*

EPA ID No.:
CAT 080 033 681

Address: *3650 East 26th Street
Los Angeles, CA 90023*

FINANCIAL ASSURANCE FOR CLOSURE

Document Type:

Letter of Credit

Results: **PASS** FAIL

Document Amount Closure: *\$560,936.77*

Closure Cost Estimate: *\$559,284*

Deficiency Closure: *∅*

VIOLATION:

FINANCIAL ASSURANCE FOR POSTCLOSURE

Document Type:

Results: PASS FAIL

Document Amount Post-closure:

Post-closure Cost Estimate:

Deficiency Post-closure:

VIOLATION:

SUDDEN LIABILITY COVERAGE

Document Type:

Insurance

Results: **PASS** FAIL

Document Amount Sudden: *\$1 Million / \$2 Million*

Deficiency Sudden:

VIOLATION:

See Comments

NON-SUDDEN LIABILITY COVERAGE

Document Type:

Results: PASS FAIL

Document Amount Non-Sudden:

Deficiency Non-Sudden:

VIOLATION:

COMMENTS

Based on the information available from the liability certificate of insurance, the facility meets the financial assurance requirements for liability.

The liability insurance policy is currently under review.

If warranted by the insurance policy review findings, this FR Review findings report may be amended.

//original signed by//

FR COORDINATOR

6/6/05
DATE

//original signed by//

VI SENIOR
DATE

6/6/05
DATE



CORRECTED COPY



EPA

Department of
Toxic Substances
Control

October 2, 1997

Pete Wilson
Governor

1011 N. Grandview Avenue
Glendale, CA 91201

~~XXXXXXXXXX~~
Secretary for
Environmental
Protection

Mr. Bruce DeMenno
President
DeMenno/Kerdoon
2000 North Alameda Street
Compton, California 90222

Dear Mr. DeMenno:

FINANCIAL ASSURANCE REQUIREMENTS FOR INTERIM
OPERATIONS AT CHEM-TECH SYSTEMS, INC., 3650 EAST 26TH
STREET, LOS ANGELES, CALIFORNIA; EPA ID NO. CAT 080 033 681

This letter supersedes the letter of October 1, 1997; as minor corrections to that letter are made herein.

This letter is to respond to your request, made during a meeting with the Department of Toxic Substances Control (DTSC) on September 26, 1997, for clarification of financial assurance requirements for continued operation of the facility during the pending permit denial determination. During discussions with DTSC, you indicated that DeMenno/Kerdoon (D/K) has purchased a controlling interest of the stock of Chem-Tech Systems, Inc. (CTSI), and plan to change the business name of the facility. You have requested information regarding the financial assurance requirements at this time, knowing that the permit determination is not yet final.

Based on available information, past demands made to CTSI and information supplied by you during the meeting on September 26, 1997, it is DTSC's position that the minimum amount of financial assurance that must be demonstrated in accordance with the requirements of Title 22, California Code of Regulations is \$500,000.00. This amount is based on information currently available, and is applicable for the pendency of the permit denial proceedings. In the event a new permit determination is commenced, a new evaluation of financial assurance requirements would need to be made based on the information available in the record at that time, along with a thorough evaluation of the facility operations.



Printed on Recycled Paper

Mr. Bruce DeMenno

October 2, 1997

Page 2

If you plan to pursue funding of the financial assurance responsibility as stated above, DTSC will entertain your request provided that it is submitted no later than October 10, 1997. Please note that this communication is part of the public record and has no bearing on the final decision on the matter now pending before DTSC.

If you have any other requests for information, please contact Pete Peterson at (916) 323-8127.

Sincerely,

//original signed by//

Yojanda M. Garza
Unit Chief
Southern California Permitting Branch

Certified Mail
P 388 574 160
Return Receipt Requested

cc: Mr. Peter Weiner
Paul, Hastings, Janofsky & Walker LLP
345 California Street
San Francisco, California 94104-2635

Mr. Watson Gin HQ-10
Mr. Pete Peterson HQ-8
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

Mr. Jose Kou
Department of Toxic Substances Control
1011 North Grandview Avenue
Glendale, California 91201



Department of Toxic Substances Control



Terry Tamminen
Agency Secretary
Cal/EPA

1011 North Grandview Avenue
Glendale, California 91201-2205

Arnold Schwarzenegger
Governor

FINANCIAL RESPONSIBILITY REVIEW FINDINGS

EPA ID NUMBER: CAT 080 033 681
FACILITY NAME: D/K Environmental
SITE LOCATION: 3650 East 26th Street
Los Angeles, CA 90023

WORK SHEET:

Closure Cost Estimate:

As per DTSC letter dated 10/2/97, the closure cost estimate for the facility was \$500,000.

3/98 = \$500,000 (The Letter of Credit established)
3/99 = \$500,000 x 1.010 = \$505,000
3/00 = \$505,000 x 1.015 = \$512,575
3/01 = \$512,575 x 1.015 = \$520,264
3/02 = \$520,264 x 1.021 = \$531,190
3/03 = \$531,190 x 1.022 = \$542,876
3/04 = \$542,876 x 1.015 = \$551,019
3/05 = \$551,019 x 1.015 = \$559,284

Financial Responsibility Coordinator:

//original signed by//

Date:

6/6/05



07-02-2004 RCVD

PAGE: 1

DATE: JULY 1, 2004

AMENDMENT TO IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER: 3009169

AMENDMENT NUMBER 9

BENEFICIARY
DIRECTOR, DEPARTMENT OF TOXIC
SUBSTANCES CONTROL
FINANCIAL RESPONSIBILITY UNIT
8800 CAL CENTER DRIVE

SACRAMENTO, CA 95826

APPLICANT
D/K ENVIRONMENTAL
3650 E. 26TH STREET
LOS ANGELES, CA 90023

THIS AMENDMENT IS TO BE CONSIDERED AN INTEGRAL PART OF THE ABOVE CREDIT AND MUST BE ATTACHED THERETO.

THE ABOVE MENTIONED CREDIT IS AMENDED AS FOLLOWS:

THE AMOUNT OF THIS CREDIT HAS BEEN INCREASED BY USD 8,143.13
THE AGGREGATE AMOUNT OF THE CREDIT IS NOW USD 551,018.45

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

IF YOU REQUIRE ANY ASSISTANCE OR HAVE ANY QUESTIONS REGARDING THIS AMENDMENT, PLEASE CALL 213-345-0042.

//original signed by//

//original signed by//

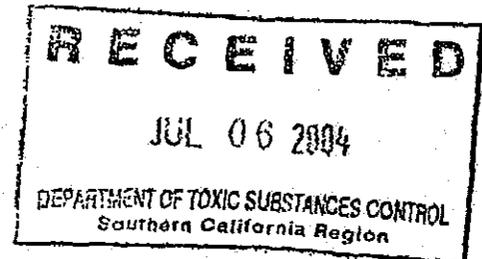
AUTHORIZED SIGNATURE

AUTHORIZED SIGNATURE

THIS DOCUMENT CONSISTS OF 1 PAGE(S).

Monique Lopez

LAWRENCE BANALES



May 14, 1998



Cal/EPA

Department of
Toxic Substances
Control

1011 N. Grandview Ave.
Glendale, CA 91201

CERTIFIED MAIL

Mr. Gordon E. Hart
Paul, Hastings, Janofsky & Walker LLP
345 California Street
San Francisco, California 94104-2635

Pete Wils
Governor

Peter M. Roon
Secretary
for Environmental
Protection

Dear Mr. Hart:

**ACKNOWLEDGMENT OF THE CLASS I PERMIT MODIFICATION
FOR FACILITY NAME CHANGE AND FINANCIAL ASSURANCE
MECHANISM FOR D/K ENVIRONMENTAL (FORMERLY
CHEM-TECH SYSTEMS, INC.), EPA ID CAT 080 033 681**

The Department of Toxic Substances Control (DTSC) has reviewed your November 5, 1997 letter regarding the Facility Name Change and Financial Assurance Mechanism for your client, D/K Environmental (DKE). DTSC appreciates your response and the information which you have provided.

On October 3, 1997, DKE notified DTSC of a Class I permit modification for a facility name change. This notification was made pursuant to Title 22, California Code of Regulations (22 CCR), section 66270.42(a). DTSC has determined that the notification of the Class I permit modification for a change in facility name needs no further action pursuant to Section A.1. of Appendix I of Chapter 20 of 22 CCR.

Pursuant to 22 CCR, section 66270.42(a)(1)(B), DKE shall send a notice of this Class I permit modification to all persons on the DTSC maintained mailing list for DKE. If notification of this name change modification has not already been done, then DKE must do so immediately since the regulations require DKE to notify the mailing list within 90 days after the change was put into effect.

With respect to the financial assurance mechanism for your client, DTSC has received amendment number 02 of the Bank of America standby letter of credit (Number 3009169) dated March 31, 1998. This second amendment of the Bank of America letter of credit has been reviewed by DTSC's financial responsibility unit (FRU) and has been determined to be in the appropriate DTSC format with the proper beneficiary (DTSC) and applicant (DKE) so designated and the proper expiration date of March 12, 1999. The second amendment of the Bank of America letter of credit has been deemed acceptable by DTSC.

Mr. Gordon E. Hart
May 14, 1998
Page 2

The FRU will commence the release of the financial assurance mechanism that is presently held by the Bank of the West, Account number 33-2385-00. This trust mechanism was in place prior to the August 1997 stock purchase by DKE of Chem-Tech Systems, Inc.

If you have any questions or comments regarding this letter, please contact Mr. Pete Peterson of our legal office at (916) 323-8127.

Sincerely,

//original signed by//

José Kou, P.E., Chief
Southern California Permitting Branch

Certified Mail
Z 464 584 364
Return Receipt Requested

cc: Mr. Bruce DeMenno, President
Ms. Catherine DeMenno, Vice President
D/K Environmental
3650 East 26th Street
Los Angeles, California 90023

Mr. Watson Gin HQ-10
Mr. Pete Peterson HQ-8
Ms. Nancy Long HQ-8
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

Ms. Florence Gharibian R3-6
Mr. Satish Gulati R3-6
Ms. Yolanda M. Garza R3-4
Ms. Teena Suzuki R3-4
Department of Toxic Substances Control
1011 North Grandview Avenue
Glendale, California 91201

DATE: MARCH 12, 1998

IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER: 3009169

BENEFICIARY
CALIFORNIA ENVIRONMENTAL PROTECTION
AGENCY
TOXIC SUBSTANCES CONTROL PROGRAM
DEPARTMENT OF HEALTH SERVICES

1011 NORTH GRANDVIEW AVE.
GLENDALE, CALIF 91200
ATTN: SATISH GULATI

APPLICANT
D/K ENVIRONMENTAL
3650 E. 26TH STREET
LOS ANGELES, CA 90023

AMOUNT
USD 500,000.00
FIVE HUNDRED THOUSAND AND 00/100'S
US DOLLARS

EXPIRATION
OCTOBER 8, 1998 AT OUR COUNTERS

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER 3009169 IN YOUR FAVOR AT THE REQUEST AND FOR ACCOUNT OF D/K ENVIRONMENTAL UP TO THE AGGREGATE AMOUNT OF U.S.\$500,000.00 FIVE HUNDRED THOUSAND IN UNITED STATES DOLLARS, AVAILABLE UPON PRESENTATION OF:

1. YOUR SIGHT DRAFT(S) ON US BEARING REFERENCE TO THIS IRREVOCABLE STANDBY LETTER OF CREDIT NO. 3009169; AND

YOUR SIGNED AND DATED STATEMENT READING AS FOLLOWS:

"WE CERTIFY THAT THE AMOUNT OF OUR DRAFT DRAWN UNDER BANK OF AMERICA IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER 3009169 IS PAYABLE PURSUANT TO REGULATIONS ISSUED UNDER AUTHORITY OF THE MARKED HAZARDOUS WASTE CONTROL LAW."

EACH DRAFT MUST BE MARKED "DRAWN UNDER BANK OF AMERICA IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER 3009169 DATED MARCH 12, 1998."

EACH DRAFT MUST ALSO BE ACCOMPANIED BY THE ORIGINAL OF THIS IRREVOCABLE LETTER OF CREDIT UPON WHICH WE MAY ENDORSE OUR PAYMENT. THIS IRREVOCABLE STANDBY LETTER OF CREDIT IS EFFECTIVE AS OF MARCH 12, 1998 AND SHALL EXPIRE ON OCTOBER 8, 1998, BUT SUCH EXPIRATION DATE SHALL BE AUTOMATICALLY EXTENDED FOR A PERIOD OF AT LEAST ONE YEAR ON OCTOBER 8, 1998 AND ON EACH SUCCESSIVE EXPIRATION DATE, UNLESS AT LEAST 120 DAYS BEFORE THE CURRENT EXPIRATION DATE WE NOTIFY BOTH YOU AND D/K ENVIRONMENTAL BY CERTIFIED MAIL THAT WE HAVE DECIDED NOT TO EXTEND THIS IRREVOCABLE STANDBY LETTER OF CREDIT BEYOND THE CURRENT EXPIRATION DATE. IN THE EVENT YOU ARE SO NOTIFIED, ANY UNUSED PORTION OF THE CREDIT SHALL BE AVAILABLE UPON PRESENTATION OF YOUR SIGHT DRAFT FOR 120 DAYS AFTER THE DATE OF THE RECEIPT BY BOTH YOU AND D/K ENVIRONMENTAL AS SHOWN ON THE SIGNED RETURN RECEIPTS.

WHENEVER THE IRREVOCABLE STANDBY LETTER OF CREDIT IS DRAWN ON, UNDER, AND IN COMPLIANCE WITH THE TERMS OF THE CREDIT, WE SHALL DULY HONOR SUCH DRAFT UPON PRESENTATION TO US, AND WE SHALL DEPOSIT THE AMOUNT OF THE DRAFT DIRECTLY INTO THE STANDBY TRUST FUND OF D/K ENVIRONMENTAL HELD BY FIRST TRUST CALIFORNIA, ACCOUNT 95446950 IN ACCORDANCE WITH YOUR INSTRUCTIONS. THE STREET ADDRESS OF FIRST TRUST IS 550 SOUTH HOPE STREET, LOS ANGELES, CALIFORNIA 90071.

WE CERTIFY THAT THE WORDING OF THIS IRREVOCABLE STANDBY LETTER OF

ORIGINAL

DATE: MARCH 31, 1998

AMENDMENT TO IRREVOCABLE STANDBY CREDIT NUMBER: 3009169

AMENDMENT NUMBER: 2

BENEFICIARY
DIRECTOR
DEPARTMENT OF TOXIC SUBSTANCES
CONTROL
400 P STREET, 4TH FLOOR
P.O. BOX 806
SACRAMENTO, CA 95812-0806

APPLICANT
D/K ENVIRONMENTAL
3650 E. 26TH STREET
LOS ANGELES, CA 90023

THIS AMENDMENT IS TO BE CONSIDERED AN INTEGRAL PART OF THE ABOVE CREDIT AND MUST BE ATTACHED THERETO.

THE ABOVE MENTIONED CREDIT IS AMENDED AS FOLLOWS:

THE EXPIRATION DATE IS AMENDED TO: MARCH 12, 1999.

WHERE IT READS IN THE FIFTH PARAGRAPH, 3RD LINE "THIS IRREVOCABLE STANDBY LETTER OF CREDIT IS EFFECTIVE....." IS NOW DELETED IN ITS ENTIRETY AND REPLACED AS FOLLOWS:

THIS IRREVOCABLE STANDBY LETTER OF CREDIT IS EFFECTIVE AS OF MARCH 12, 1998 AND SHALL EXPIRE ON MARCH 12, 1999, BUT SUCH EXPIRATION DATE SHALL BE AUTOMATICALLY EXTENDED FOR A PERIOD OF AT LEAST ONE YEAR ON MARCH 12, 1999 AND ON EACH SUCCESSIVE EXPIRATION DATE, UNLESS AT LEAST 120 DAYS BEFORE THE CURRENT EXPIRATION DATE WE NOTIFY BOTH YOU AND D/K ENVIRONMENTAL BY CERTIFIED MAIL THAT WE HAVE DECIDED NOT TO EXTEND THIS IRREVOCABLE STANDBY LETTER OF CREDIT BEYOND THE CURRENT EXPIRATION DATE. IN THE EVENT YOU ARE SO NOTIFIED, ANY UNUSED PORTION OF THE CREDIT SHALL BE AVAILABLE UPON PRESENTATION OF YOUR SIGHT DRAFT FOR 120 DAYS AFTER THE DATE OF THE RECEIPT BY BOTH YOU AND D/K ENVIRONMENTAL AS SHOWN ON THE SIGNED RETURN RECEIPTS.

THIS AMENDMENT WILL BECOME OPERATIVE UPON OUR RECEIPT OF YOUR CONSENT TO OUR AMENDMENT NO. 1 DATED MARCH 23, 1998.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

BANK OF AMERICA NT & SA
//original signed by//

//original signed by//

T. CHATMAN

AUTHORIZED SIGNATURE

Cheryl

AUTHORIZED SIGNATURE

THIS DOCUMENT CONSISTS OF 1 PAGE(S)

Financial Responsibility

Exhibit – B

Liability Insurance

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
11/03/06

PRODUCER 1-818-539-2300
 Arthur J. Gallagher & Co.
 Insurance Brokers of California, Inc., License #0726293
 505 North Brand Boulevard
 Suite 600
 Glendale, CA 91203-3944
 leyla.garcia-morales@ajg.com

INSURED
 D/K Environmental Services
 3650 East 26th St.
 Vernon, CA 90023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: National Union Fire Ins Co Of Pitts	19445
INSURER B: American Home Assur Co	19380
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
B	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> SIR \$250,000 GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	2702916	10/31/06	10/31/07	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ Excluded MED EXP (Any one person) \$ Excluded PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	2703196	10/31/06	10/31/07	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
A	EXCESS/UMBRELLA LIABILITY <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input checked="" type="checkbox"/> RETENTION \$10,000	BE6798786	10/31/06	10/31/07	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$ \$ \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input checked="" type="checkbox"/> INCL <input type="checkbox"/> EXCL If yes, describe under SPECIAL PROVISIONS below	7209423	10/31/06	10/31/07	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTH-ER
B		7209422	10/31/06	10/31/07	E.L. EACH ACCIDENT \$1,000,000
					E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
	OTHER				

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

Re: All Operations
 Evidence of Insurance Only

CERTIFICATE HOLDER

To Whom it May Concern

 Los Angeles, CA 90017
 USA

CANCELLATION 10 Day Notice of Cancellation for Non-Payment

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.
 AUTHORIZED REPRESENTATIVE //original signed by//

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

Appendix F

Closure Health & Safety Plan

D/K ENVIRONMENTAL

SITE SPECIFIC HEALTH AND SAFETY PLAN

GENERAL SITE INFORMATION

Name of Site:	<u>D/K Environmental</u>
Project No.:	<u></u>
Site Address:	<u>3650 East 26th Street, Vernon, CA 90023</u>
Client Name:	<u>D/K Environmental (DKE)</u>
Site Contact:	<u>Desmond Phillip</u>
Site Phone No.:	<u>(323) 268-3387</u>
Client Representative:	<u>Rosemary Domino</u>
Plan Prepared by:	<u>Rosemary Domino</u>
Date of Plan:	<u>May 30, 2006</u>
Reviewed by:	<u></u>
Date:	<u></u>
Site Info Source:	<u>Site History as provided by DKE</u>
Proposed Site Visits:	<u>To be announced (TBA)</u>

Estimate Of Hazards To Personnel:	High	<u></u>
	Medium	<u>XXX to</u>
	Low	<u>XXX</u>
	None	<u></u>

Description Of Work:

Decontamination, Demolition, and Removal of Tanks and Vessels. Decontamination of Containment Areas

Description Of Facility (See Attached Vicinity and Hospital Route Map):

The site has many aboveground storage tanks and associated piping. The site is relatively flat and consists of concrete.

Site Entry Procedures:

The DKE site may be entered off of 26th Street, traveling in the direction of either East or West on 26th Street.

CHEMICAL HAZARDS

Chemical	State	TLV/ PEL	Routes of Exposure	Effects of Overexposure
Petroleum Hydro- Carbons	Liquid/ Gas	300/300 mg/kg	Inhalation, ingestion, skin/eyes	Eye & nose irritant, giddiness, headache, nausea, staggered gait, dermatitis
Diesel	Liquid/ Gas	300/300 mg/kg	Inhalation, ingestion, skin/eyes	eye, skin & nose irritant, cough, hallucinations, pneumonitis, nausea, dermatitis
Benzene	Liquid/ Gas	10/1 mg/kg	Inhalation, ingestion, skin/eyes	Eye irritant, nausea, vomiting, Dermatitis, carcinogenic, teratogenic
Toluene	Liquid/ Gas	100/100 mg/kg	Inhalation, ingestion, skin/eyes	Eye & skin irritant, hallucinations, motor activity & bone marrow changes, teratogenic
Ethylbenzene	Liquid/ Gas	100/100 mg/kg	Inhalation, ingestion, skin/eyes	eye & skin irritant, nose, throat, chest, dizziness, respiratory failure
Xylenes	Liquid/ Gas	100/100 mg/kg	Inhalation, ingestion, skin/eyes	Eye & skin irritant, olfactory and pulmonary changes, Teratogenic
Lead	Soil/ Dust	0.05/0.05 mg/m ³	Inhalation, ingestion, skin/eyes	Loss of appetite, anemia, malaise, insomnia, headache, muscle/joint pains, kidney damage, gastritis, hallucinations
Activated Carbon	Solid	N/A N/A	Inhalation	May irritate the respiratory system. May produce eye irritation.
AKP Absorbent	Solid/ Dust	2 mg/m ³	Inhalation, Ingestion	Eye, skin, nose, throat, and upper respiratory tract irritant. May cause irritation of gastrointestinal tract.
Ferric Chloride	Liquid	1 mg/m ³ 1 mg/m ³	Ingestion, Eyes or Skin, Inhalation	Abdominal pain, and prolonged vomiting. Hematemesis, dehydration, shock, pallor, cyanosis, hypothermia, vasomotor instability, and coma may follow. Death may occur; survivors may develop reversible hemorrhagic necrosis. Gastric scarring may

				occur after 4 weeks. Pyloric stenosis and mild hepatic cirrhosis may persist.
Sodium Bicarbonate	Solid/ Powder	N/A N/A	Inhalation, Ingestion, Eye/skin	Inhalation of high concentrations of dust may cause coughing and sneezing. Extremely large oral doses may cause gastrointestinal disturbances. May irritate eyes.
Sodium Carbonate	Solid/ Powder	OSHA: 15 mg/m ³ (total dust) or 5 mg/m ³ (resp. dust); ACGIH: 10 mg/m ³ (total) or 5 mg/m ³ (resp. dust) No TLV Est.	Inhalation, Ingestion, Eye/Skin	Irritation to eyes, skin, and upper respiratory tract. Excessive exposure may cause "soda ulcers" on hands and perforation of nasal septum. Sensitivity may occur. Slightly toxic by ingestion, but large amounts may be corrosive to GI tract producing abdominal pains, vomiting, and diarrhea. Prolonged contact with skin or eyes can destroy tissue.
Sodium Hydrosulfide	Liquid	Not Est./ Not Est.	Inhalation, Ingestion, Eye/Skin	Possible irritation of the nose, throat, mucous membranes, and upper respiratory tract. Eye contact can result in irreversible damage, including blindness. Burns to stomach lining causing severe injury and death. May produce toxicity typical of hydrogen sulfide gas upon skin contact.
Sodium Hydroxide	Solid	2 mg/m ³ / 2 mg/m ³	Inhalation, Ingestion, Eye/Skin	Damage is immediate and without prompt medical attention can become permanent. This strong, corrosive alkali dissolves any living tissue it contacts.
Sulfuric Acid	Liquid	1 mg/m ³ / 1 mg/m ³ 8Hr TWA	Ingestion, Eye/Skin	Ingestion may cause severe injury or death. Eye irritant, burns, and corneal necrosis. May destroy skin tissue, ulcerations.

Note: TLV = Threshold Limit Value, PEL = Permissible Exposure Limit

Note: TBA = To Be Announced

Who To Call For Access: Desmond Phillip

Telephone Number: (323) 268-3387

Will Officials Be Present:
Yes XXX and
No XXX

Are Street Closures Necessary:
Yes _____
No XXX

Is Dust Control Necessary:
Yes XXX, if soil excavation is required
No _____

Is There Easy Access For Water Trucks:
Yes XXX
No _____

Describe Options For Dust Control:
Apply water as necessary to minimize dust.

Regulatory Agencies Involved:
Cal EPA/DTSC
City Of Vernon, Department of Environmental Health

Who At What Agencies Require Notification Of Work Commencement:

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SPECIFIC AREA SAFETY

Area Location (Description): The site is located in Los Angeles County, approximately 3 miles west of the 710 freeway in the City of Vernon, California.

Work Description:

The objective of this work is to empty and decontaminate aboveground hazardous waste storage tanks and associated piping to scrap metal standards prior to size reduction and removal off site as scrap metal to be recycled. Some of the existing hazardous waste storage tanks (poly and fiberglass) will not be scrapped but rather cut up and disposed of at a landfill.

In addition, if required, remove existing concrete; excavate soil.

Monitoring Equipment:

Air monitoring equipment (organic vapor analyzers, combustible gas, and O₂ meters) will be used throughout the site activities with the meters being checked as needed based on the activity.

Chemical Hazards Present:

Vapors within the Aboveground Storage Tanks are a concern for workers health in regards to breathing and potential explosions or fire. CO (carbon monoxide) is an additional threat due to its chemical characteristics including being heavier than normal air.

Physical Hazards Present:

Walking in-between and around heavy equipment, trips and falls, dust and vapor inhalation. Possible fire and explosions.

Planned Level of Protection:

Personnel protective equipment level "C" or "B" if needed for tank cleaning activities. After commencement of monitoring, the level of protection shall be adjusted to appropriate level. Other activities will utilize a modified level D as specific needs arise for use of tyveks, rain suits, rubber boots or gloves.

Personnel Protective Equipment Level "D":

Feet:	Steel Toe Leather Work Boots
Clothing:	Tyveks or Equivalent and Orange Work Vest
Respiratory:	None required
Eyes:	Shatterproof Safety Glasses
Hands:	Leather Work Gloves or equivalent
Head:	Hard Hat
Ears:	Hearing Protection and 2-Way Radio Communications (as appropriate)

Comments:

NA

Downgrade Protection Level:

If monitoring indicates levels below conditions indicative of a lower level of protection for the workers, then the personnel protective equipment will be downgraded to level "D".

Personnel Protective Equipment Level "C":

Feet:	Steel Toe Leather Work Boots/Chemical Resistant Boots when working with liquids
Clothing:	Chemical Resistant Tyveks or equivalent, Tyvek Suit and Orange Work Vest
Respiratory:	Half/Full Face Respirator, with Dust, Mist, Fume Cartridges
Eyes:	Shatterproof Safety Glasses
Hands:	Leather Work Gloves/ Chemical Resistant Gloves when working with liquids
Head:	Hard Hat, Face Shield Optional
Ears:	Hearing Protection and 2-Way Radio Communications (as appropriate)

Personal Protective Equipment Level "B":

Feet:	Steel Toe chemical resistant rubber boots
Clothing:	Chemical Resistant clothing poly coated Tyvek or equivalent Orange Work Vest
Respiratory:	Supplied Air, positive pressure Full-face respirator
Eyes:	Shatter Proof Safety Glasses
Hands:	Inner surgical Nitrile gloves with outer chemical/oil resistant Nitrile gloves
Head:	Hard Hat
Ears:	Hearing Protection when required

SITE CONTROL

Work zones will be established for site control and preventing the spread of contamination. The work zones for this site are:

- Exclusion zone;
- Support zone; and
- Decontamination zone.

These zones will be established by the site supervisor and will be communicated to the site workers as part of the tailgate health and safety meeting. A diagram showing these zones will be posted in one or more conspicuously visible locations at the site. Marking devices such as traffic cones or colored stakes will be used as appropriate to remark these work zones.

Exclusion Zone. This area is the area of hazardous material. Since the potential for exposure exists within this zone only those personnel meeting all requirements specified in the site specific health and safety plan may enter the exclusion zone.

Support Zone. This area is generally outside the work area boundaries Equipment, vehicles and personal items that are not directly used for the site work should remain in the support zone and should not be brought into the exclusion zone.

Decontamination Zone. This area is generally between the exclusion zone and the support zone. Workers leaving the exclusion zone will pass through the decontamination zone and follow the decontamination procedures before entering the support zone.

Initial Site Entry

A tailgate health and safety meeting will be conducted prior to site entry and commencement of work. The site will be visually inspected and monitored with instruments before task personnel enter the site. The site will be checked with an OVA to assess if elevated levels of organic vapors are present.

Site Safety Rules

All persons working at the site, including subcontractors, will abide by the following safe work conduct:

- All personnel working at the site (including subcontractors) are required to conduct themselves in a professional manner at all times. Such conduct is required to ensure compliance with procedures established in this plan for the safety of the employee and others. Violation of established work rules may result in disciplinary actions;
- No alcoholic beverages, illegal drugs, or firearms will be allowed on site. Anyone reporting to work under the influence of illegal drugs or alcohol will be subject to disciplinary actions;
- Horseplay will not be tolerated. Horseplay encompasses any frivolous behavior that increases the probability of an accident;
- Eating, drinking, smoking, and chewing gum or tobacco will not be allowed in the exclusion and decontamination zone.
- All personnel working at the site are required to wash their hands in the decontamination zone (before breaks and at the end of the day) to prevent the chance of contaminant ingestion or absorption after leaving the site.
- Changes in work practices or work rules will be implemented only after approval by the project manager;
- Employees will clean up at the end of their daily task before leaving the site. This includes pick up and proper storage of tools and PPE; and
- Electrical safety precautions, such as ground-fault protection, will be followed.

Spill Containment Program

There are several activities, which may create a spill hazard at the site. These activities include pumping waste out of the tanks prior to cleaning, removing residual fluids and sludge in plastic buckets, and loading and hauling stored fuels from the work area. If a spill occurs, the field team members will do the following:

- Assess the need to don a higher level of PPE. This assessment will depend on the volume of material spilled and measurements from the air monitoring equipment;
- Obtain appropriate adsorptive materials and a container in which to collect the spilled material; and
- Pump or scoop up the spilled material and any additional contaminated surface debris and soil and place it in a suitable container or area. This will be done in the appropriate level of PPE.

In the event that a spill is too large to be handled safely by the team members, the area around the spill will be secured and the project manager will immediately notify the DKE contact.

Sanitation

Taking breaks will be performed outside the Support Zone and away from the site. Potable water will be available in the support zone for all team members. The project manager is responsible for ensuring there is adequate supply of bottled water available at the site.

DECONTAMINATION

The purpose of decontamination is to limit the spread of contaminated materials from the exclusion zone. This is accomplished through the step-by-step procedure whereby the protective clothing and equipment is either washed or disposed. The project manager will exercise judgment in establishing the contamination reduction zone.

The decontamination procedures presented for Level D and Level C are very similar: the only difference between the two levels is that extra stations are present at Level C and B decontamination to account for the respirator change or removal.

Decontamination During Medical Emergencies

If prompt lifesaving, first aid, or medical treatment is required, workers should omit decontamination procedures. On-site personnel will accompany contaminated victims to the hospital or off-site medical facilities to advise medical staff on the decontamination matters.

Lifesaving care will be instituted immediately without considering decontamination. Outer garments can be removed if removal does not cause delays, interfere with treatment, or aggravate the problem. Respiratory equipment must always be removed. Chemical resistant clothing can be cut away. If the outer contaminated garment cannot be removed safely, the individual will be wrapped in plastic, rubber, or blankets to help prevent contamination of ambulances or medical personnel. Outer garments will then be removed at the medical facility. No attempt will be made to wash or rinse the victim, unless it is known that the individual has been contaminated with an extremely toxic or corrosive material that could also cause severe injury or loss of life. For minor medical problems or injuries, workers will follow the normal decontamination procedures.

Heat stroke is considered a medical emergency. Once again, unless the victim is obviously contaminated, decontamination should be omitted or minimized and treatment begun immediately, such as giving the victim cool water and a cool place to sit or ride in while being transported to emergency services. Removal of outer garments will be done first.

Exposure to chemicals can be divided into two categories; injuries from direct contact, such as acid burns or inhalation of toxic chemicals; and, potential injury due to gross contamination on clothing or equipment.

For inhalation exposure cases, only a qualified physician can perform treatment. If the contaminant is on the skin or in the eyes, first aid treatment can begin on-site to counteract the substance's effect. First aid treatment consists of flooding the affected area with copious amounts of water. The project manager will assure that an adequate supply of water and potable emergency eyewash are available on-site prior to commencing field activities.

When protective clothing is grossly contaminated, the person wearing it can be exposed to the contaminants. Unless severe medical problems have occurred simultaneously with personnel contamination, the protective clothing should be carefully removed.

Decontamination of Small Equipment

Elaborate decontamination procedures for small equipment, such as notebooks, radios, pens, calculators, monitoring equipment and so on will not be necessary. These may be subject to generally insignificant contamination by dust and petroleum compounds. When necessary, damp cleaning rags or paper towels will be used to wipe off small equipment before being taken from the site. Towels or rags will be disposed of along with disposable PPE.

EMERGENCY PLANNING

It will be the responsibility of the Project Manager to determine the appropriate response to an emergency incident. The response sequence will be as follows:

- Remove all personnel from the source of the chemical or physical hazard;
- Assess the severity of the incident;
- Contact appropriate emergency assistance; and
- Swiftly move the injured or exposed personnel to rendezvous point for aid.

The following planning measures will be instituted to facilitate responses to emergency situations:

- The Project Manager will conduct a safety briefing prior to start of work. Copies of this site safety plan will be distributed to all project personnel. After reading the plan, all personnel will be required to sign the site safety plan consent agreement.
- All field personnel will be instructed in the use of all field safety equipment before any work takes place.
- All personnel will be instructed in emergency communication protocols appropriate to the project.

- The Project Manager will verify that all field personnel have fulfilled the project training and medical monitoring requirements.
- The Project Manager will check to see that all required safety equipment is at the job site prior to the start of each day's field activities.

Emergency Communication Protocol

The following visual signals will be used as emergency communication signals:

- Hand clutching the throat: Out of air/can't breathe
- Hands on top of the head: Need assistance
- Thumbs up: OK/I'm all right/I understand
- Thumbs down: no/negative
- Grip partner's wrist or both hands around partner's waist: leave area immediately.

Injury or Exposure

Employees are required to notify the site safety officer of any suspected exposure as soon as possible following the occurrence. In the event of an injury or suspected exposure, the project manager will contact the appropriate hospital and ambulance service if necessary. Should an injury or exposure occur while the employee is in either the exclusion zone or decontamination area, the emergency decontamination procedure shall be implemented. The employee will be brought immediately to the decontamination area where team members will decontaminate the employee. If needed, the employee can be evacuated to the hospital.

Emergency Equipment and First Aid Requirements

On-site emergency equipment will include primarily items that are on-site for general safety use and items that the contractor will supply. These include:

- Dry chemical fire extinguisher;
- Eyewash station or portable eyewash station as per ANSI Z-358.1; and
- First Aid Kits

SITE SAFETY & HEALTH DOCUMENTATION

Health and safety documentation will consist of the following:

- *Site Safety and Health Plan:* All site work will be performed in accordance with the provisions stated in the site specific health and safety plan
- *Site Visitor's Log:* Visitors will be discouraged from entry inside the delineated work zone and under no circumstances will they be allowed inside the exclusion zone during an emergency. The Project Manager will maintain a visitor's log for the duration of the site investigation.
- *Personnel Training Documentation:* The Project Manager will maintain documentation of site personnel training. Site workers must sign and date personal acknowledgement stating that they have read and understood the

site specific health and safety plan and attended the requisite site orientation and briefing and, if necessary, respirator fitness training, considered the basis for the site specific health and safety plan training.

- *Tailgate Safety Meeting Documentation:* The Project Manager will conduct the initial site-specific health and safety plan conference that will serve as the initial tailgate safety meeting. This and any subsequent meeting will be documented in writing, signed by the attendees and posted at the site. The project manager will keep a file of tailgate safety meeting forms. The Project Manager will conduct a tailgate safety meeting prior to the fieldwork whenever new personnel arrive at the site, as conditions change, or as needed.

EMERGENCY RESPONSE PLAN

It is the objective of this site-specific health and safety plan to minimize chemical or physical hazards and operational incidents. The following directions are provided to ensure that personnel respond to emergency situations in calm reasonable manner:

- Prior to commencement of field operations, an emergency medical assistance network will be established. A vehicle will be available on-site during all activities to transport injured personnel to the identified emergency facility. From there, the ambulance or air-rescue facilities would be used to transport any seriously injured worker to the nearest medical facility experienced in handling the specific type of emergency.
- Telephone numbers and locations, including the fastest routes to the nearest medical facilities, will be posted at the site.
- In no instance will fewer than two people be present at the site during the site activities.
- The Project Manager will be the lead person in all emergency situations.
- The Project Manager will be certified to render first aid and cardiopulmonary resuscitation (CPR) prior to initiation of field activities. A first aid kit will be available at the work site, as well as adequate supply of fresh water and emergency eyewash.
- Site personnel will be trained in emergency procedures during the personnel training sessions.
- Evacuation routes from each specific sampling area will be established by the Project Manager and communicated to all personnel during the initial safety conference conducted before fieldwork begins.
- A wind direction device, such as a windsock or survey ribbon, will be set up in the vicinity of the exclusion zone.
- The Project Manager will carry a compressed air horn. In the event of fire, hazardous substance spill, vapor release, or other hazardous event, three short blasts will be the signal to evacuate the site. All personnel evacuating the exclusion zone will proceed to a pre-determined upwind location where the Project Manager will conduct a head count and provide further instructions.
- The Project Manager will be responsible for assuring that all site personnel understand the specific signals and procedures.

- In the event of an unexpected continuous vapor release, fire, or explosion, all site work will cease and the exclusion zone will be evacuated.

Additional Monitoring Equipment Required:

None

Comments:

Refer to confined space program for additional information.

EMERGENCY INFORMATION

Emergency Telephone Numbers:

Local Police:	911
Local Fire Department	911
Local Ambulance:	911
Local Hospital	323-268-5000 White Memorial Hospital
On-Site Contact:	Desmond Phillip
On-Site Telephone:	(323) 268-3387
Client Contact:	Rosemary Domino
Client Telephone:	(323) 268-3387

EMERGENCY INFORMATION

Location of Nearest:

Water Source:	On-Site
Public Right of Way:	North of site (26 th Street.)
Sanitation Facility:	On-Site
