The Source Group, Inc.

HEALTH AND SAFETY PLAN

Former Palm Springs Landfill
Ramon Road and Gene Autry Trail
Palm Springs, California

Submitted to:
Geiger, LLC
9171 Wilshire Boulevard Penthouse Suite
Beverly Hills, California 90210

January 20, 2003
Revised: March 25, 2003
Second Revision: November 5, 2003
Third Revision: December 15, 2003

Submitted by:
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The source Group, Inc.

HEALTH AND SAFETY PLAN
REVIEW AND APPROVAL

CLIENT: Geiger, LLC

SITE NAME: Geiger Palm Springs

PROJECT NAME: Former Palm Springs Landfill

PROJECT No. 02-GLL.001

START DATE: January 20,2004

END DATE: January 20,2005

Theodore Lizee Plan Completed By	Signature:	Date: 12/15/03
James M. Evensen, Jr.. C.HG. Project Manager	Signature:	Date: 12/15/03
Mark Labrenz. C.HG. Health and Safety Coordinator	Signature:	Date: 12/15/03
James M. Evensen, Jr. Site Health and Safety Officer*	Signature:	Date: 12/15/03

This Health and Safety Plan (The Plan) has been written for the use of The Source Group, Inc. (TSG) and its affiliates. It may also be used as a guidance document by properly trained and experienced TSG subcontractors. However, TSG does not guarantee the health or safety of any person entering this Site. All subcontractors will be required to follow the requirements in this Health and Safety document.

Due to the potential hazardous nature of this Site and the activity occurring thereon, it is not possible to discover, evaluate, and provide protection for all possible hazards that may be encountered. Strict adherence to the Health and Safety guidelines set forth herein will reduce, but not eliminate, the potential for injury at this Site. The Health and Safety guidelines in this Plan were prepared specifically for the Former Palm Springs Landfill property located at the northeast corner of Ramon Road and Gene Autry Trail, within the City of Palm Springs, Riverside County, California, and should not be used on any other Site without prior research by trained health and safety specialists.

TSG claims no responsibility for its use by others. The Plan is written for the specific Site conditions, purposes, dates, and personnel specified and must be amended if these conditions change. Changes to the requirements for Health and Safety guidelines must be approved by the TSG Health and Safety Coordinator.

* The Site Health and Safety Officer may be substituted at any time by another qualified TSG employee.

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ATTACHMENTS

PROJECT TELEPHONE NUMBERS

EMERGENCY TELEPHONE NUMBERS

EMERGENGY SERVICE	NAME	TELEPHONE NO.
Hospital – Desert Hospital	See Hospital Location Map (Attachment 2)	(760) 323-6511
Other	Fire, Police. Ambulance	911

PROJECT PERSONNEL TELEPHONE NUMBERS:

PROJECT RESPONSIBILITY	NAME	TELEPHONE NO.
Site Health and Safety Officer	Jim Evensen	(805) 373-9063 x206
Project Manager	Jim Evensen	(805) 373-9063 x206
Health and Safety Coordinator	Mark Labrenz	(805) 373-9063 x203
TSG 24 Hour Emergency Number	Answering Service	(877) 221-7726

REGULATORY TELEPHONE NUMBERS:

AGENCY	NAME	TELEPHONE NO.
CA-DTSC	Mr. Stephen Cutts	(818) 551-2178
CAL-OSHA	Consultation	(800) 963-9424

1 GENERAL SITE REQUIREMENTS AND BACKGROUND INFORMATION

A. Health and Safety Plan Responsibilities

- Before beginning on-site work, TSG's and the construction company's Project Managers will ensure all employees training and medical clearances are confirmed, including subcontractors (Attachment 1). Utility clearances will be verified and/or updated as needed (Attachments 4 and 5).

- The Site Health and Safety Officer will ensure air monitoring equipment is available and calibrated, monitoring logs are kept current (Attachments 6 and 7), a daily Health and Safety briefing is held (Attachment 8) and all TSG personnel and subcontractors agree to and sign the Health and Safety Plan and Acknowledgement and Agreement Form (Attachment 9), the first day of on-site work.

- The Site Health and Safety Officer will oversee the overall Plan. He has the authority to stop work or prohibit any personnel from working on the Site at any time for not complying with any aspect of the Plan. This authority is also extended to the TSG Health and Safety Coordinator and TSG Project Manager.

- All Subcontractor Field Supervisors are responsible for implementing this plan for his/her own employees.

- Each person on the Site has responsibility for their own health and safety, as well as assisting others in carrying out the Plan. Any person observed to be in violation of the Plan should be assisted in complying with the Plan, or reported to the Site Health and Safety Officer or the Subcontractor Field Supervisor.

- Any Site personnel may shut down field activities if there is a real or perceived immediate danger to life or health.

B. Minimum Training, Respirator Fit-Testing, and Medical Surveillance Requirements for Site Personnel

(for all field people working with any hazardous materials)

- 40 hr. Hazardous Waste Operations Training (HAZWOPER) 29CFR1910.120
- 24 hr. Hazardous Waste Operations Training (HAZWOPER for construction crew)
- 8 hr. Annual HAZWOPER Refresher Training (current)
- 8 hr. Supervisor HAZWOPER Training for Site Health and Safety Officer
- Annual Respirator Fit Testing
- Annual Medical Clearance and respirator clearance by a physician.

C. Purpose of Field Work

The Site is proposed for development for commercial use. The fieldwork includes the removal, replacement, and re-compaction of landfill material within the existing landfill footprint.

D. Description of Specific Tasks Planned

(Number each separate task in order of progression. The task numbers assigned here will be referred to throughout the Plan):

1. Excavation and Re-compaction;
2. Site Restoration Activities; and
3. Monitoring for Landfill Gasses (post-development).

E. Initial Site Entry

Has this been performed by TSG? (YES/NO): YES . If YES, describe:

Remedial Investigation activities conducted in March, 2003. A limited soil sampling program was conducted to assess chemical compounds associated with the historical disposal Practices at the former PSL, the results of the activities are included in Remedial *Investigation Report,* Former Palm *Springs* Landfill, dated June 18,2003.

F. Interior Work & Confined Spaces

Will any work be done inside an enclosure, building, or confined space? (YES/NO): NO . If YES, describe:

G. Excavation and Trenching

Excavation and/or trenching will be done on this Site? (YES/NO): YES . If YES, describe including proposed dimensions and if entry may be required:

Excavation of the landfill. (historical volumetric calculations indicate approximately 500.000 cubic yards of material) and consolidation of landfill materials within the current footprint of the landfill. Details of the work scope are included in TSG's Removal *Action Workplan,* Former Palm *Springs* Landfill, dated Julv 25,2003.

All excavation activities will comply with the regulations outlined within Title 8 CCR 1541. All excavation sidewalls will be sloped at an angle not steeper than 1.5 horizontal to 1.0 vertical (34 degrees measured from the horizontal). The Citv of Palm Springs Building and Safetv will be notified of all excavation activities and all required grading and building permits will be obtained prior to conducting site work.

In accordance with the proposed sloping and sidewall configuration; shoring, special notifications, constraints on ingress/egress, fall protection. or unique safety protocols will not be necessary. However. a competent person will oversee the excavation activities to ensure safe work conditions.

Attachment 13 will be completed for excavations ≥ 5 feet deep and requiring entry. Entry and exit ways (ramps) will be required within any excavation greater than a 4-foot depth.

H. Landfills and Other Areas Potentially Containing Explosive Gas or Vapor

Site is in an area containing a current/former landfill, or the geology contains known/suspected pockets of explosive gas/vapor? (YES/NO) YES . If YES, describe:

The Site is a former landfill of predominantly household and construction debris and wastes. The landfill operated form the 1930's to the 1960's. Air monitoring, including monitoring of potential explosive gases and VOCs will be conducted during drilling activities.

I. Time of On-Site Work

All work will be done during daylight hours? (YES/NO): YES :

Excavation work will take place 5 days per week (Monday through Friday) and working hours will be from 7:00 AM to 5:00 PM, pending the City of Palm Spring's approval. Based on the current schedule, it is anticipated that the earthmoving portion of the project will be completed in 80 working days (16 weeks).

J. Hazardous Materials

Will any hazardous materials (chemicals) be used on Site? (If so, include MSDS's under Attachment 12.) (YES/NO): NO . If YES, describe:

N/A

K. Background Information

(e.g., historical operations and environmental investigations):

The Site is currently vacant land. The Site was operated as a landfill that had accepted predominantly household refuse and construction waste from the early 1930s until the mid-1960s. Historical records indicate that the material contained in the landfill is comprised of inert waste and household refuse. Subsequent environmental assessment data substantiate those records. The findings from the environmental investigations reveal that the construction debris consists of concrete rubble, fractured bricks and blocks, rock, charred wood, metal, wire, cable, melted and unmelted bottles, and occasional unburned papers (Leighton, 1993). Similarly, the household waste conforms to typical domestic refuse and includes newspaper, partially burned and unburned wood and vegetative debris, bottles, cardboard, cans, tires, fabric, plastic, wire, and cable (Leighton, 1993).

During the comprehensive assessment performed by Leighton in 1993, the physical and chemical aspects of the landfill were investigated. During their assessment, samples were collected and analyzed for constituents of concern (COCs) including lead, total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organics, pesticides, polychlorinated biphenyls (PCBs), oil and grease, CCR metals, and biogenic material. In addition to the quantification of COCs in the solid matrix, Leighton assessed the presence of soil gas within the landfill. The results of their soil (solids) investigations revealed only minor exceedances in total lead levels. The soil gas studies showed that methane was not present above the 0.05% reporting level in any of the samples, nor were VOCs detected in the collected gas samples.

Results of the Leighton investigation showed that two of the 67 soil samples collected from the test pits contained total lead concentrations that exceeded the California Code of Regulations, (CCR) Title 22 action level of 1,000 mg/kg. Thirteen of the samples contained soluble threshold limit concentrations (STLC) that exceeded the action level (5.0 mg/L) for lead. None of the other target analytes exceeded their respective action level. Assessment records also show that, in addition to direct burial, some trash was burned prior to being covered. Trash burning, which was common practice in contemporaneous landfill operations, concentrates non-degradable constituents such as metals. Evidence of this phenomena associated with burning is documented by the elevated lead levels in many of the assessment trenches that were sampled by Leighton and Associates in 1993 (TI, T8, T9, T12, T13, T14, T15, T19, and T21).

In March, 2003, TSG conducted a remedial investigation which was intended to determine whether two previously assessed areas contained contaminants that could potentially be present as a result of the past operations in those respective areas. The areas included the landfill debris and underlying soil and the soil beneath the former retention ponds. A total of 1 [redacted] borings were drilled and soil samples were obtained. Samples were collected and logged continuously from grade to the total depth of each boring. Seven borings were drilled into and through the landfill material, and five borings encountered burned material. Four soil borings were drilled in the area of the former retention ponds. The objective of the borings in the landfill material was *to* identify and sample burned material that was reported during previous investigations. The samples of the burned material were chemically analyzed for the presence of PCDDs, PCDFs, and PAHs. The objective of the sampling in the former retention pond area was to assess the presence of PAHs and metals. No PCDFs were detected in any of the samples collected during the investigation. Detectable concentrations of PCDDs were identified in three samples of the burned material located in the southwest (boring B1) and northeast (borings B3 and **B6)** portions of the former landfill area. Sample B1-17.5-18, collected in native soil beneath landfill material, did not contain detectable concentrations of PCDDs or PCDFs (TSG, 2003).

Five samples from borings within the former landfill area were analyzed for PAHs. Each sample analyzed exhibited evidence of burned material. Four of the samples contained detectable PAHs. All detected concentrations were below EPA Region 9 Preliminary Remediation Goals (PRGs) and Soil Screening Levels (SSLs) (TSG, 2003).

Sampling in the former retention pond area confirmed that no sludge or pond bottom material was present in the areas assessed. Samples obtained during continuous coring showed soil characteristics similar to native soil, with no evidence of discoloration or other indications of pond bottom settlement of sediment. Previous assessments did not encounter sludge or pond bottom debris. These findings corroborate reports that the dried sludge or was removed from the Site and used as fertilizer on local farmland (TSG, 2003).

One sample from each of the four borings drilled in the former retention pond area was analyzed for CAM 17 metals. Eleven metals were detected in the samples. All detected concentrations were below the EPA Region 9 PRGs and SSLs. One sample from the former retention pond area (B8-4-4.5) was analyzed for PAHs. Benz[a] anthracene was detected, but at a concentration below the PRG and SSL for that compound (TSG, 2003).

II. SITE CHARACTERISTICS

A. Facility Description
(Identify structures, buildings, pits, impoundments, and work areas.)

The Site is a currently a vacant lot with no structures. The combined area of the properties proposed for development includes approximately 36.6 acres. The combined area of the property proposed for development includes approximately 36.6 acres. The Site is the location of an inactive landfill that had accepted predominantly household refuse and construction waste from the early 1930s until the mid-1960s. The southern portion of the Site was reportedly occupied by a small-scale sewage treatment plant, which operated from the late 1930's to the mid-1940's. The facility included several small buildings, a water well, and wastewater percolation basins (retention ponds). Leftover sewer sludge was reportedly used off-site for fertilizer. No sewage sludge was reported to be buried in the landfill. The sewage plant was reportedly not operated after the late 1940's, and the southern portion of the property was never used as a landfill.

During the period of landfill activity, the volume of landfill refuse was reportedly reduced in burn pits. Evidence of these burn pits was present in the historical records and documented by Leighton and Associates (Leighton) during their 1993 investigation.

Leighton (1993) estimated the volume of landfill debris to be approximately 545,000 cubic yards (yd^3), of which approximately 158,000 yd^3 and 387,000 yd^3 of the material are construction and household debris, respectively. Based on Leighton's Trench Location Map, dated July 8, 1993, the surface area of the landfill is approximately 1,130,000 square feet (ft^2). The thickness *of* the landfill material ranges from 7.0 to 20.5 feet, with an average thickness of 15 feet. The elevation of the property ranges from 372 feet above mean sea level (amsl) in the southern portion (where there is no buried landfill material) to 388 feet amsl in the western-central portion of the property (Leighton, 1988).

B. Site Status
Occupied (Yes/No): No . (If Yes, describe current activities and relationship to field work):

C. Unusual Site Features
(Water supply, telephone, radio, powerlines, traffic patterns, gas lines, water mains, terrain, vacant lots, debris, other physical hazards, etc.):

The Site is a former landfill. Currently, landfill debris is exposed at ground surface. Prior to site work, further investigation regarding the presence of subsurface utilities will be conducted. Following that investigation, Underground Service Alert (USA) will be contacted to mark any underground lines at or adjacent to the site. During excavation activities, hazards associated with heavy construction equipment, landfill gases, asbestos-containing materials (ACMs), and the documented COCs may be encountered. Monitoring and safety requirements related to the site work are outlined within Section IV and Section V of this plan.

D. Site Maps

[see Attachment 3].

E. Contaminant Description

(Representative concentrations from most recent investigation.):

Substance	Source of Contamination	Source of Sample (soil / water)	Maximum Sample Concentration
Total Lead	See Page 4	Soil	1,470 mglkg
Total recoverable petroleum hydrocarbons (TRPH)	See Page 4	Soil	717 mglkg
Polychlorinated dibenzo-p-dioxin (PCDDs)	See Page 4	Soil/Ash	91 µg/kg
Polycyclic aromatic hydrocarbons (PAHs).	See Page 4	Soil/Ash	0.53 mg/kg
Asbestos (friable)	See Page 4	NS	NS
Methane	See Page 4	Air	ND

III. TASK SPECIFIC HEALTH AND SAFETY RISK ANALYSIS

A. Potential Non-chemical Hazards

Physical hazards associated with excavation activities and the presence of heavy machinery represent a significant health and safety concern for this project. Scrapers, track dozer, wheel dozer, and motor graders will be used to excavate and redeposit landfill materials. Water trucks will be used to control dust during the movement of materials. Safety requirements for working around heavy equipment are outlined within Section IV, Subsection C.

Other potential non-chemical hazards present during site work include exposure to extreme temperatures, exposure to elevated noise levels, fire and explosion hazards, and potential biological hazards (potential for snakes or other wildlife to occur at the site).

Potential non-chemical hazards are summarized within Table III-A on Page 11

B. Potential Contaminants of Concern / Risk Evaluation

A limited risk evaluation of the Site was conducted, evaluating worker safety with respect to seventeen dioxin and related compounds, namely polychlorinated dibenzo-p-dioxin and polychlorinated dibenzofuran compounds (PCDDs and PCDFs) (Attachment 16). The risk analysis was based on available Site data, collected by TSG in 2003, and Leighton & Associates in 1993. The analytical data indicates that fifteen of the compounds of interest are non-detect and two PCDD compounds were detected. Dioxin risk values are adjusted and quantified in reference to 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD). Generally, individual results are added together to generate an equivalent TCDD source concentration from which risk evaluation is based upon. In order to achieve a representative Site risk evaluation, the fifteen non-detect compounds were included; one-half of the method detection limit was used for quantification for these fifteen compounds. Each value was then adjusted relative to TCDD using a Toxicity Equivalency Factor (TEF). This adjustment yields seventeen adjusted values for the compounds of interest, which are summed to produce a Maximum Total Adjusted Concentration as TCDD. This value is then divided by a particulate emission factor, which yields a calculated particulate emission value as TCDD. For this data set, the calculated particulate emission value as TCDD (5.34E-10 $\mu g/m^3$) is two orders of magnitude lower than the maximum permissible exposure to TCDD in ambient air (4.50E-8 $\mu g/m^3$). The conclusion of this risk evaluation reveals that the incremental site cancer risk posed by dioxin appears to be within acceptable limits for worker exposure.

Another limited risk evaluation of the Site was conducted, evaluating worker safety with respect to lead in soil (Attachment 17). The risk analysis was also based on available Site data, collected by TSG in 2003, and Leighton &Associates in 1993. Following a statistical analysis of the available Site data, a conservative value of 216 mg/kg was determined to represent 99% UCL concentration of lead at the Site in this risk evaluation. Total calculated incremental cancer risk from lead is 1.3E-8, which is two orders of magnitude lower than the 1.0E-6 threshold generally considered to be acceptable (1 per 1,000,000). The incremental Site cancer risk posed by lead appears to be within acceptable limits for worker exposure. For both risk evaluations, the estimated incremental cancer risk includes mitigating factors such as worker PPE.

With respect to the Site, exposure pathways are inhalation, ingestion of dust, and dermal contact with impacted soil. During the remediation and construction phases, fence-line air monitoring and real-time dust monitoring will be performed to protect the site workers and to prevent dust and odor violations under the terms of the required air permits. These permits include the South Coast Air Quality Management District's (SCAQMD's), Rule 1150 and the desert cities' Fugitive Dust (PM-10) Control Plan. The PM-10 was developed by the desert cities in conjunction with the AQMD, which adopts fugitive dust and nuisance rules from South Coast Air Basins (Rules 403/403.1 and 402). Conditions in these permits are extremely stringent and essentially restrict any fugitive dust emissions. In an effort to meet these requirements at the site, around-the-clock dust monitoring will be performed in the active and inactive work areas. This intensive dust monitoring and mitigation program will serve as the foundation for the worker exposure monitoring.

Potential contaminants of concern for the site are summarized in Table III-B, on Page 12.

C. Potential Chemical Hazards Tables

In order to develop the monitoring requirements for potential site constituents, pertinent exposure limits, exposure routes, and warning properties were compiled. A summary of exposure limits and heath effects for the potential site constituents of concern are provided within Table III-C1 and Table III-C2 on Pages 13 and 14.

D. Task-Specific Hazards

A qualitative hazard ranking was prepared for each of the three project tasks outlined within Section I D. The hazard ranking takes into account the work scope for each task, potential for exposure, and safety requirements.

For each of the three task defined, chemical exposure has been defined as a potential hazard. For Tasks 1 and 2, physical hazards related to construction activity is also a concern. To address identified hazards associated with the proposed work, the protocols set forth within Sections IV and V will be strictly enforced.

As will be discussed in greater detail within the following sections, all work will be conducted with the proper emission permitting. Engineering control measures will be implemented to minimize nuisance and fugitive emissions from the work areas. The minimization of the potential emissions will be conducted in accordance with all State, federal, and local rules and regulations. Water trucks and on-site water supplies will be used to control dust and potential emissions while excavating and processing soil.

If necessary, additional measures will be employed to reduce the emissions of VOCs and/or volatile petroleum hydrocarbons, if present. Under the conditions of SCAQMD Rule 1150, if emissions exceed designated thresholds, the SCAQMD will be immediately notified and mitigation of the fugitive emissions will be performed.

Landfill gasses will be monitored by the field personnel, using a flame ionization detector (FID) or photo-ionization detector (PID) which can be calibrated to respond to nearly all organic compounds. The FID will be calibrated to a predetermined mixture of methane and air at the

factory. Each day the FIDs will be recalibrated for the target VOCs using manufactures' specifications and procedures.

The hazard ratings for each of the three tasks included within this HASP are presented below.

TASK	HAZARD RATING	IDENTIFIED / ANTICIPATED HAZARDS
1. Excavation and Re-compaction	Low	Chemical exposure, physical hazards, earthmoving / heavy equipment hazards, noise.
2. Site Restoration Activities	Low	Chemical exposure, construction activity hazards. resoirator use.
3. Monitoring for Landfill Gasses (post-development)	Low	Monitor landfill gas collection system for potential buildup of methane or regulated gasses.

E. Overall Hazard Rating
(Unknown, low, moderate, serious, or extreme):

Low

Table III-A. Potential Non-chemical Hazards

	YES	NO
Overhead/underground hazards		
Overhead (describe) Utilities		N
Underground (describe) Unidentifed Utilties		N
Equipment hazards		
Geoprobe	Y	
Drilling	Y	
Excavation	Y	
Machinery	Y	
Heat exposure	Seasonal	
Cold exposure	Seasonal	
Oxygen deficiency		N
Confined space		N
Noise	Y *	
Ionizing radiation		N
Non-ionizing radiation		N
Fire/Explosion	Y	
Electrical		N
Biological	Y	
Work Surfaces		
Holes/ditches	Y	
Steep grades	Y	
Slippery surfaces		N
Uneven terrain	Y	
Unstable surfaces		N
Elevated work surfaces		N
Heavy Equipment	Y"	

Table III-B. Potential Contaminants of Concern

Substance	Health Hazards	Pathway	Maximum Sample Concentration
Total Lead	CNS	Soil	1,470 mg/kg
Total recoverable petroleum hydrocarbons (TRPH)	Carcinogen CNS	Soil	717 mg/kg
Polychlorinated dibenzo-p-dioxin (PCDDs) (Dioxin)	Carcinogen	Soil/Ash	91 µg/kg
Polychlorinated dibenzofuran (PCDFs) (Furans)	Carcinogen	Soil/Ash	ND
Polycyclic aromatic hydrocarbons (PAHs).	Carcinogen	Soil/Ash	0.53 mg/kg
v o c s	Possible Carcinogen	Air	ND
Asbestos	Carcinogen	Construction Debris/Air	NS
Methane	Asphyxiant	Air	ND

Table III-C1. Potential Site Chemical Hazards

CHEMICAL (OR CLASS)	TLV/TWA	OTHER PERTINENT LIMITS	WARNING PROPERTIES	ROUTES OF EXPOSURE OR IRRITATION	ACUTE HEALTH EFFECTS	CHRONIC HEALTH EFFECTS! TARGET ORGANS
Petroleum Hydrocarbons	300/300 ppm	PELSTEL = 500 ppm Flash Point = -45 degrees F LEL = 1.3%	Characteristic gasoline/diesel/oil odor	Inhalation, dermal, ingestion	Skin/eye/mucous membrane irritant, staggered gait, slurred speech, mental confusion	Carcinogen, (benzene)/central nervous system, kidneys, liver.
Benzene	1/0.3 ppm	PELSTEL = 5 ppm IDLH = 500 ppm	Aromatic odor, Odor threshold = 3 - 5 ppm	Inhalation. dermal. ingestion	Skin/eye/respiratory tract irritant, headache, dizziness, nausea.	Carcinogen/CNS, bone marrow, blood, skin.
Toluene	100/50 ppm (skin)	PELSTEL = 150 ppm IDLH = 500 ppm PEL Ceiling = 500 ppm	Sweet pungent odor, Odor threshold = 8 ppm	Inhalation, dermal, ingestion	Skin/eye/respiratory tract Irritant. headache, dizziness, weakness.	CNS, liver, kidneys, skin.
Xylene	1001100 ppm	PEL-STEL = 150 ppm IDLH = 1,000 ppm PEL Ceiling = 300 ppm	Aromatic odor, Odor threshold = 0.5 ppm	Inhalation, dermal. ingestion	Skinleyelmucous membrane irritant, dizziness, drowsiness.	CNS, liver, kidneys, skin.
Ethyl Benzene	100/100 ppm	PELSTEL = 125 ppm IDLH = 800 ppm	Pungent aromatic odor	inhalation, dermal,	Skin/eye/mucous membrane irritant, sleepiness. cramps.	Eyes, respiratory tract, skin, CNS, blood, kidneys. liver.
Vinyl Chroride	1 ppm	PEL Ceiling = 5 ppm IDLH = Not Determined	Colorless gas or liquid with a pleasant odor	Inhalation. dermal, ingestion	Skin/eye/mucous membrane irritant, sleepiness. cramps.	Respiratory tract. CNS, blood, liver, lymphatic system.
Methane	simple asphyxiant	simple asphyxiant	Pungent aromatic odor	Inhalation, dermal. ingestion	Skin/eye/mucous membrane irritant, sleepiness, cramps.	Lungs, CNS
Asbestos	1 fiber/cm^3	0.1 fiber/cm^3 (8-hour) 1.0 fiber/cm^3 (30-minute)	White or greenish blue fibrous odorless solids	Inhalation, ingestion	Eye Irritant	Asbestosis, breathing difficulty, interstitial fibrosis, resticted pulminary function.
PAHs	na	PEL = 0.2 mg/m^3	Bwnd in ash	Inhalation, dermal	Nausea, headache, weakness, temporary CNS depressent, dizziness, disturbed cardiac rhythm.	CNS, liver, lungs, kidneys, spleen cardiac sensitization, partial anesthesia.
PCDDs (Dioxins)	na	na	Bwnd in ash	Inhalation, dermal	Irritant	Potential Carcinogen
PCDFs (Furans)	na	na	Bound in ash	Inhalation, dermal	Irritant	Potential Carcinogen

PEL = Permissible Exposure Limb
TLV/TWA = Threshold Limit Value/Time Weighted Average (8 hours)
STEL = Short Term Exposure Limit (15 minutes)
IDLH = Immediately Dangerous to Life or Health

IDLH = Immediately Dangerous to Life or Health
na = Not Established
LEL = lower explosive limit

Table III-C2. Potential Site Chemical Hazards (Metals)

CHEMICAL (OR CLASS)	PEL	OTHER PERTINENT LIMITS	WARNING PROPERTIES	ROUTES OF EXPOSURE OR IRRITATION	ACUTE HEALTH EFFECTS	CHRONIC HEALTH EFFECTS/ TARGET ORGANS
Nickel (Metal)	1 mg/m^3	IDLH = 10 mg/m^3 Vapor Pressure = 0	None, Odorless	Inhalation, ingestion	Dermatitis, asthma	Potential Carcinogen
Lead (Metal)	0.05 mg/m^3	IDLH = 100 mg/m^3 Vapor Pressure = 0	None, Odorless	Inhalation, ingestion	Weak, abdominal pain, facial pallor	Anemia, CNS, kidney disease, hypotension
Arsenic (Metal)	0.01 mg/m^3	IDLH = 5 mg/m3 Vapor Pressure = 0	None, Odorless	Ingestion, eyes, skin, respiratory	Hyper pigmentation of the skin, ulceration of the nasal septum.	Potential Carcinogen
Tin (Metal)	2 mg/m^3	IDLH = 100 mg/m3 Vapor Pressure = 0	Lustrous solid	Inhalation	irritant, vomiting, diarrhea, muscle twitch	Eyes, skin, respiratory system
Copper (Metal dust)	1 mg/m3	IDLH = 100 mg/m^3 Vapor Pressure = 0	None, Odorless	Inhalation, ingestion	irritant, dermititis	Anemia, eyes, skin, respiratory system, liver, kidneys
Chromium (Metal	0.5 mg/m^3	IDLH = 250 mg/m3 Vapor Pressure = 0	None, Odorless	Eyes, skin, respiratory	Headache, irritation of eyes, skin	Histologic Fibrosis
Cadmium (Metal)	0.005 mg/m^3	IDLH = 9 mg/m^3 Vapor Pressure = 0	None, Odorless	Inhalation	Pulmonary edema, muscle aches, nausea, vomiting, diarrhea	Mild anemia, respiratory system, kidneys, possible carcinogen

IDLH = Immediately Dangerous to Life or Health
Ceiling Limit (not to be exceeded, even instantaneously)
PEL = Permissible Exposure Limits (8 hours)

IV. GENERAL SITE HEALTH AND SAFETY PROCEDURES

A. MAPS - Hospital Location Map and Site Map (Attachments 2 and 3)

The hospital route is clearly marked on the HOSPITAL LOCATION MAP (Attachment 2), which will be posed at the site within the project trailer. In addition, LOCAL EMERGENCY AND PROJECT TELEPHONE NUMBERS will be posed within the project trailer.

B. Site Security

The Site Health and Safety Officer is responsible for preventing unauthorized entry onto the Site and for knowing who is on Site at all times. No uninvited visitors will be allowed into the work zones.

Access to the work Site will be controlled in the following manner:

- The Site is surrounded by a perimeter fence. Once work activities have begun, only authorized personnel will be allowed to access the property.
- Work area security will be maintained by the Site Health and Safety Officer during work hours. If warranted, during non-working hours a security guard will be posted at the Site.

If an on-site command post is necessary, TSG will ensure that the command post is located upwind from sources, given the prevailing winds, and located/identified on the Site Map (Attachment 3).

At the end of each workday, temporary stockpiles will be properly secured. Care will be taken each day to place qualified cover material on top of the stockpiles at days end. The cover material will not have measurable VOC emissions (i.e., OVA readings will be below ambient levels) and will consist of excavated soil from below the landfill materials. It is anticipated that the surface of the temporary stockpiles will be as secure or provide better protection than the current surface of the site, which contains exposed landfill debris. The temporary stockpiles will be flat, and will be compacted after placement of cover material. Additionally, the stockpile location(s) will be equipped with a perimeter silt fence at the downgradient location as an additional erosion protection. At the end of each workday, the stockpile surface condition, the condition of the silt fences, and any additional erosion control measures will be inspected and deficiencies will be corrected. Vehicles or other equipment will not be allowed to travel or stage near the stockpiles.

C. Requirements for Working Around Heavy Equipment

Earthmoving and support equipment will be present onsite during the excavation phase of the project. Scrapers, track dozer, wheel dozer, and motor graders will be used to excavate and redeposit landfill materials. Water trucks equipped with loses will be used to control dust during the movement of materials. Construction equipment presents a physical hazard to site workers in the vicinity of the excavation areas.

During the preliminary phases of the remediation/construction, the equipment will be inventoried, the scope of the operation redefined, and the work processes and patterns detailed. Performing that analysis for the benefit of the project team will enable each discipline to review the function of various resources. Where direct or potential interaction is anticipated, those responsible persons will be required to understand the role of each resource where interaction may occur.

To ensure the safety of ground crews, all field personnel will be required to wear reflective safety vests. In addition, all field monitoring, grade checking, and other measurements will be made while the responsible personnel are facing the flow of traffic. Ground personnel will work in and around the construction equipment only after eye contact is established and confirmed between the ground personnel and equipment operators. Hand signals and two-way radios will also be used to convey information between ground crews and equipment operators.

D. Personal Protective Equipment Requirements

Level **D** personal protective equipment for dusty/dry conditions is applicable to all personnel who enter the exclusion zone and have the potential for direct contact with soil. Equipment operators working in enclosed cabs will not be required to wear a hard hat, tyvek coveralls or gloves. However, PPE will be available to the equipment operators in the event that they must exit the cab of their equipment within the exclusion zone. Visitors to the site, who wish to enter the exclusion zone but who will not have direct contact with soil, will be required to don a hard hat, safety glasses, steel toed boots (with boot covers), tyvek coveralls, and if necessary hearing protection.

All construction personnel will be required to wear ANSI approved footwear during work hours. It is anticipated that the majority of site workers will opt to wear leather boots. In order to assure that site contaminants are not transported off site via worker footwear, all work boots used at the site will be dedicated to the project. Within the contaminant reduction zone, workers will be required to remove their personal protective equipment and change footwear, leaving their work boots onsite. At the end of the project, workers boots will either be thoroughly decontaminated or disposed of, depending upon their condition and/or potential exposure to site COCs.

Level **D** personal protective equipment will consist of the following:

Level **D** Protection for dusty/dry conditions:

- REQUIRED: Safety glasses, hard hat, Tyvek or dedicated cotton coveralls, steel-toe boots:
- Gloves: Standard leather gloves if no direct contact with soil. Latex or Nitrile gloves for contact with soil or dusty conditions.
- Noise: Ear plugs or ear muffs will be required in areas where there is the potential for site workers to be exposed to noise greater than 85 dBA (eight-hour time weighted average.
- Other: All ground crews working in the vicinity of heavy machinery will be required to wear reflective safety vests.

Pending an initial assessment regarding the concentration and composition of landfill gases generated during excavation activities (estimated to be completed during the first three to four days of the project), workers within the exclusion zone will be required to wear air-purifying respirators in addition to the above reference PPE. This level of protection is referred to as Level C. In the event that VOC concentrations are below permissible exposure limits, respirator use will be suspended or discontinued.

Throughout the remainder of the excavation activities, if VOC concentrations of 25 ppm or greater (measured using a field OVA) are registered in the breathing zone of site workers, respirator use will be mandatory until a determination of the VOC constituents is completed and compared to permissible exposure limits. The results from the air analysis will be used to assess the risk associated with potentially toxic gases produced by the landfill material. These data, in conjunction with real time sampling devices (Drager tubes or equivalent) will be used to determine the relative proportions of the landfill gases.

Level C personal protective equipment will consist of the following:

Level C Protection:

- Air-purifying respirator: North full or half face
- Cartridges: Organic Vaoors /Acid gas / HEPA
  - Cartridge change-out schedule: See discussion below for cartridse chanae out schedule.
- Gloves: Standard leather gloves if no direct contact with soil. Latex or Nitrile gloves for contact with soil or dusty conditions.
- Chemical resistant boots or boot covers: PVC boot covers or dedicated work boots.
- Dust & Dirt/Chemical resistant suit: Tyvek or Dedicated Cotton Coveralls.
- Other: Hardhat, safetv alasses. steel toed boots. Ear protection and safetv vests where required.

Cartridge Change-Out Schedule

All site workers will be required to use North half face respirators fitted with organic vapor cartridges and HEPA filters. TSG has prepared a change out schedule for respiratory cartridges using North's on line cartridge service life estimation program (ezGuide 2.2). For a conservative analysis, TSG assumed that the entire VOCs mass detected by the OVA (25 ppm for upgrade) was composed of benzene. Based on this assumption, North's life estimation program calculated that cartridges (7581P100) should be changed every 9.8 hours. Cartridges would therefore be changed every day at the beginning of the project. Based on SUMMA canister sampling, North's life estimation program will again be run during the initial phases of excavation work to confirm cartridge change out schedules based on empirical site data.

E. Work Limitations and Restrictions

- No eating, drinking, or smoking on Site, except in the support zone.
- No rings, watches, bracelets, necklaces, or other jewelry that could trap chemical contamination or get caught in moving equipment.
- No facial hair that would interfere with respirator fit.
- Buddy system at all times in Level C or when working around heavy equipment, such as backhoes or drill rigs.
- The Site Health and Safety Officer will monitor weather broadcasts before the start of outdoor work each day, and more frequently as necessary. No work will be done outdoors during hazardous weather conditions.

Heat Stress

- Heat stress is a health concern. To avoid heat stress, adequate hydration and breaks for ventilation and cooling should be employed. The Site Health and Safety Officer will administer breaks and drinking water distribution.
- Work should stop if any of the following symptoms occur: muscle spasm and/or pain in the limbs or abdomen (heat cramps); weak pulse, heavy sweating, dizziness, and/or fatigue (heat exhaustion); or rapid pulse, no sweating, nausea, dizziness, and/or confusion (heat stroke). Provide first aid immediately.
- Use sunscreen on unprotected skin to protect against ultraviolet exposure as necessary.

Cold Stress

- For temperatures below 40°F, adequate insulating clothing must be worn. Warm, sweet drinks should be available. Coffee intake should be limited.
- No one should begin work or return to work from a heated shelter with wet clothes. Workers should be aware of signs of cold stress such as severe shivering, pain in the fingers or toes, drowsiness, or irritability. The onset of any of these signs is an indication for immediate return to a heated shelter.

F. Decontamination Procedures

1. Personnel:

   Triple rinse using non-ohosphate base soap in designated decontamination areas.

2. Sampling Apparatus:

   Triple rinse using non-ohosohate base soap in designated decontamination areas.

3. Heavy Equipment:

Excavation equipment will be pressure washed in a designated decontamination area.

4. Level C Decontamination Stations (in order from exclusion zone to support zone):

a) Equipment drop
b) Wash and rinse outer garment, boots, and gloves
c) Remove boots and gloves
d) Change respirator cartridges (if returning to exclusion zone)
e) Remove outer garment
f) Remove respirator
g) Clean hands and face

5. The following equipment (or equivalent) will be made available:

- Emergency eyewash,
- Soap/detergent solution and water rinse (via Hudson-type sprayers),
- Soap gel or disposable wipes,
- Disposable towels,
- Plastic sheeting,
- Clean brushes and tubs.

6. Decontamination Rinsate:

Decontamination rinsate will be generated at the decor mination stations located within the contamination reduction zone. Generation of rinsate will be kept to a minimum through the use of dedicated or disposable protective clothing (tyvek or cotton coveralls, gloves, and work boots), which will remain within the exclusion zone. Rinsate generated from hand and face washing will be collected and temporarily stored in 55-gallon drums within the contaminant reduction zone. As discussed and agreed upon with the DTSC, rinsate water will be used for dust mitigation and redeposited onto the landfill materials during the project.

For the duration of the project, heavy equipment with the potential to contact constituents of concern will be kept within the exclusion zone of the work site. Upon completion of the project the equipment will be cleaned by rinsing the equipment with high-pressure water. Rinsate generated during the decontamination of site equipment will be collected on plastic and channeled into the central landfill repository area.

G. General Procedures

- The Utility Clearance Log and Map (Attachments 4 & 5) will be completed prior to beginning any subsurface work. Based on the site reconnaissance, there are no overhead lines within the proposed areas of excavation. In the event that excavation is necessary near overhead lines, the equipment operator will be contacted for a site meeting to verify the feasibility of work in these locations. Minimum required clearances, as outlined within Table 2 of 8CCR 2946 will be maintained during all excavation activities.

- Daily Health and Safety briefings will be held by the Site Health and Safety Officer (Attachment 8).
- Determine wind direction, establish exclusion zone, and set up decontamination reduction zone and support zone upwind as necessary.
- Try to remain upwind when collecting samples, venting wells, etc.
- Potable water will be available at the work Site.
- Provide dust control by spraying soils with water or a surfactant/water solution.
- Use ground fault circuit interrupters for plug-in electrical devices and extension cords (3-pin plugs only).
- Hearing protection in the form of disposable earplugs will be worn around heavy equipment and machinery.
- Be aware of tripping hazards with extension cords, tools, hoses, augers, etc.

Other: A safety briefing will be held with TSG and subcontractors prior to work.

H. Emergency Equipment

- At least two ABC-type dry chemical fire extinguishers, and
- First aid kit.
- At least one vehicle will be designated for emergency use.

I. Perimeter Identification and Personal Protective Equipment (PPE)

The table below indicates the type of zone boundaries required for this job.

TASK NO	LEVEL OF PROTECTION REQUIRED (C, D)		ZONE BOUNDARIES REQUIRED (a, b, c, d)	
	PPE START	PPE UPGRADE	ZONE START	ZONE UPGRADE
1) Excavation	D	C	d	a,c,d
2) Site Restoration	D	C	d	a,c,d
3) Post Development Monitoring	D	C	d	a,c,d

This job will require one or all of the following "zones" or "boundaries" to be established during work.

a. Exclusion Zone – Required when workers within that zone must wear personal protective equipment.
b. Contaminant Reduction Zone – Required when decontamination of people and equipment leaving the Exclusion Zone is required.
c. Support Zone – The location where administrative and other support activities are conducted.
d. Work Area Boundaries – Excludes non-workers from entering a potentially hazardous environment.

V. HEALTH AND SAFETY MONITORING

During site excavation activities, various health and safety monitoring programs will be conducted for the purpose of assuring worker safety as well as the safety of potential offsite receptors. The various monitoring programs include the following:

- Volatile organic compound (VOC) monitoring using a hand-held Organic Vapor Analyzer (OVA), LEL meter, as well as direct reading detector tubes (i.e. Drager tubes);
- Particulate monitoring using personal monitors and stationary high volume particulate samplers;
- Asbestos monitoring using personal monitoring devices and corresponding laboratory analysis;
- Noise monitoring using a hand-held dosimeter; and
- Radiological monitoring using a hand-held radiation monitor.

A. VOC Monitoring

During excavation, monitoring for organics as methane using an organic vapor analyzer (OVA) will be conducted continuously at the working face and at the property line directly downgradent of the excavation. The maximum sustained readings shall be recorded every 15 minutes.

The action levels for respirator use and work stoppage, as outlined within Table V-A, are based on an assessment of the potential constituents of concern and the protection factor provided by the proposed respiratory protection. For this assessment, benzene was determined to be the driving compound of concern with a threshold limit value of 1.0 ppm (time weighted average over 8 hours). The respiratory protection provided by a half face respirator is 10 times. Thus, if benzene accounted for 100 percent of the VOC concentration detected by the OVA, the level for respirator use would be set at 10 ppm. However, it is likely that a large percentage of landfill gas is composed of lighter end constituents such as methane, and benzene will therefore account for a smaller percentage of the VOC concentration detected at the landfill. Field monitoring using direct reading detector tubes for benzene will be employed to assess the concentration of benzene within landfill gas. TSG's level for respirator use (25 ppm) assumes that benzene will account for less than 40 percent of the landfill gases detected by the OVA during field monitoring.

In addition to OVA monitoring, during the initial excavation activities, up to three SUMMA canister air samples will be collected at the areas of highest VOC concentrations to assess the individual compounds present in gases emanating from the landfill material. Air samples will be analyzed for VOCs by Method TO-I4 and TO-15. Based on this initial study, a determination as to the exposure scenario for site workers will be made.

The concentration of benzene and vinyl chloride in landfill gas will be assessed through field monitoring using direct reading detector tubes as well as SUMMA canister samples. Drager or a similar real time sampling device capable of providing quantitative analysis of both compounds will be present onsite. In the event that vinyl chloride is detected at concentrations greater than 1 ppm within landfill gas, the established level of respirator protection will not apply. Additional engineering controls and/or personal protective equipment will be required to mitigate exposure to vinyl chloride, if detected. The presence of vinyl chloride within landfill gas at a concentration greater than 1 ppm will be cause for work stoppage.

In addition to VOC monitoring using an OVA, Lower Explosive Limit (LEL) measurements will be collected from the working face of the excavation using an LEL meter. Based on an assumption of methane as the predominate VOC, an LEL of ***4%*** or greater will be cause for work stoppage and the implementation of additional engineering controls to reduce the VOC concentrations in air (Table V-B).

B. Particulate Monitoring and Contingencies

Site workers within the excavation areas will be required to wear personal monitors to assess the particulate exposure during excavation. Equipment operators as well as ground personnel within the areas of excavation will initially be outfitted with personal monitors during the first week of excavation activity. Personal monitoring devices will be analyzed for both total particulates as well as lead.

As outlined in Table V-C, action levels for respirator use and work stoppage have been established based on particulate thresholds of 5.0 mg/m^3 and 10.0 mg/m^3, respectively. Total particulates rather than lead were determined to be the driving consideration for establishing particulate threshold concentrations based on an assessment of the lead concentrations historically detected within site soil. Based upon calculations using the highest detected lead concentrations in soil, a total particulate concentration of greater than 34 mg/m^3 within the breathing zone would be required to exceed the PEL of lead at 0.05 mg/m^3. As a conservative approach to the lead concentrations in site soil, the action level for total particulates has been established at 5.0 mg/m^3.

Following the first week of sampling, if the average particulate concentration within the work zone is determined to be below the threshold value of 5.0 mg/m^3, personal dust monitoring analysis will be reduced to one to two samples per week.

During excavation, high-volume air sampling for suspended particulates will be conducted upwind and downwind of the excavation site via stationary air samplers. Air samples will be collected each day during active work periods, from the start of excavation (anticipated 7:00 A.M.) until activity is ceased for the day, but not less than 5 hours of sampling time. Three high volume particulate samplers (one upwind of the open excavation and two downwind of the excavation) will be deployed at the site for the duration of the excavation work.

All high volume samples collected during active work periods will be analyzed for total suspended particulates and lead. With respect to the dioxin compounds, there are no real-time monitoring techniques. This is due to the long duration turn-around time (approximately *2* weeks) for the laboratory analytical process. If any analytical results show the upwind and downwind differential concentrations of lead exceeding 50 micrograms per cubic meter ($\mu g/m^3$), excavation activities shall cease until additional mitigation measures are implemented.

C. Asbestos Monitoring and Contingencies

TSG will monitor for the presence of ACM during excavation activities. ACM monitoring will consist of a visual screening of excavated material, as well as outfitting site personnel within the excavation zone with personal air monitoring devices that will be subsequently analyzed for ACMs. TSG will conduct initial ACM monitoring during the first three days of excavation activities. During this period, daily air samples collected from field personnel will be analyzed for ACM. The PEL for asbestos is 0.1 fiber/cc. If asbestos is not detected or detected at

concentrations determine to be within safe guidelines, ACM personal air monitoring will be conducted only periodically (estimated once per week) for the duration of the project.

In the event that ACM is identified either visually or by laboratory analysis, the ACM will be treated as "friable" ACM and will be managed in wetted form. Any potential or documented ACM will be sprayed with water and thoroughly wetted prior to being excavated, moved, or compacted.

D. Noise Monitoring and Contingencies

Noise monitoring will be performed by a competent person during the initial week of excavation activities using a hand-held dosimeter. TSG will monitor noise levels relative to both equipment operators as well as site workers located adjacent to operating equipment. Noise levels will be monitored in the equipment operator's compartments, equipment maintenance areas, locations where ground crews reside, and other areas where sound levels may exceed action safe levels.

In areas where there is the potential for site workers to be exposed to an eight-hour time-weighted average of 85 dBA, hearing protection in the form of earplugs or earmuffs will be required. These devices have noise reduction ratings (NRR) in the range of 30 dBA. If the NRR of 30 dBA is insufficient, earplugs with earmuffs will be worn to further improve the NRR and corresponding hearing protection. Following the initial study, noise monitoring will be conducted once per week to assess/confirm noise levels in areas of potential concern.

E. Radiation Monitoring

To date, no studies have been conducted at the site relative to ionizing radiation hazards. Therefore, upon beginning excavation activities, TSG will perform a one-day test for the presence of ionizing radiation using a hand held radiation monitor. Radiation measurements will be collected at the working face of the excavation at one-half hour increments throughout the first day of excavation. In addition to the monitoring along the working face, the surface of the landfill will also be screened for the presence of ionizing radiation. A grid with an approximate 100-foot node spacing will be used to walk the site. Any detected radiation will be flagged, logged into the daily field notes, and monitored with greater intensity when that area is disturbed during the remedial excavation.

A statistical analysis will be performed on the data and the site data will be compared to background radiation measurements collected from the surrounding area. Site data will be provided to the DTSC to determine if further study of ionizing radiation is warranted.

Table V-A. Action Level Table for Chemical Monitoring

CHEMICAL (OR CLASS)	MONITORING EQUIPMENT	TASK NO.	MONITORING FREQUENCY/ LOCATION	LEVEL FOR RESPIRATOR USE	LEVEL FOR WORK STOPPAGE
Volatile Organics	Photo or Flame Ionization Detector (PID or FID)	1, 2, 3	Four times per hour in breathing zone.	25 ppm Breathing Zone.	50 ppm Breathing Zone.

Record peak readings every 15 minutes, or more frequently as necessary.
Set alarm on instrument at 25 ppm.
Calibrate equipment every day.

***Complete Attachment 6 (Air Monitoring Equipment Calibration/Check Log) and Attachment 7 (Air Monitoring Log).**

Table V-B. Action Level Table for Combustible Atmosphere

CHEMICAL (OR CLASS)	MONITORING EQUIPMENT	TASK NO.	MONITORING FREQUENCY/ LOCATION	LEVEL FOR RESPIRATOR USE	LEVEL FOR WORK STOPPAGE
Methane	LEL Meter	1, 2, 3	Continuous sampling at c near the c ar ir the breathing zone.	Respirators not effective for explosive atmospheres or Oxygen deficiency.	4% LEL and <19.5 % O_2

Record peak readings every 30 minutes, or more frequently as necessary.
Set alarm on instrument at 4 % LEL.
Calibrate equipment every day.

***Complete Attachment 6 (Air Monitoring Equipment Calibration/Check Log) and Attachment 7 (Air Monitoring Log).**

Table V-C. Action Level Table for Particulate Contaminant

CHEMICAL (OR CLASS)	MONITORING EQUIPMENT	TASK NO.	MONITORING FREQUENCY/ LOCATION	LEVEL FOR RESPIRATOR USE	LEVEL FOR WORK STOPPAGE
Dust	Personal Dust Monitor	1, 2, 3	Continuous sampling at or near the source and in the breathing zone.	5.0 mg/m^3 Dust Breathing Zone.	10.0 mg/m^3 Dust Breathing Zone.

Record peak readings every 30 minutes, or more frequently as necessary.
Set alarm on instrument at 5 mg/m^3.
Calibrate equipment every day.

***Complete Attachment 6 (Air Monitoring Equipment Calibration/Check Log) and Attachment 7 (Air Monitoring Log).**

Action Level Calculations:

A dust levels of 5.0 mg/m^3 and 10.0 mg/m^3 were selected for respirator upgrade and work stoppage respectively, based on discussions with the DTSC – Human and Ecological Risk Division and Industrial Hygiene and Safety Branch.

VI. WASTE CHARACTERISTICS

A. Waste Generation

(Type(s)/quantities expected):

Anticipated: *Yes* __X__ No _____

Types: Liquid __X__ Solid __X__ Sludge _____ Other _____

Quantity (Expected Volume): Decontamination rinsate water will be generated during fieldwork and will be temporarily contained in 55-gallon drums. As discussed and agreed upon with the DTSC. rinsate water will be used for dust mitigation and redeposited onto the landfill materials during the project. Dedicated personal protective equipment (PPE) in the form of used tyvek, gloves. respirator cartridges, etc. will be generated as waste during the project. Based on approval from the DTSC, used PPE will be deposited within the landfill repository during the project.

B. Health Characteristics

(Expected):

Corrosive:_____ Flammable/Ignitable:__X *__ Radioactive:_____

Toxic:_____ Reactive:_____ Unknown:__X__

Other (specify): X* potential methane.

C. Packaging requirements for waste material

(Expected):

Open-head, 55-gallon drums:	***Yes***
Closed-head, 55-gallon drums:	No
Overpack drums:	No
Baker tanks:	No
Lined waste bins:	**No**

Other: If suspect contaminated soil is encountered. place soil on plastic sheeting and cover with plastic sheeting. Impacted soil and landfill materials that are excavated will be stockpiled within the footprint of the Site.

D. Disposal and/or Treatment Methods Proposed

Waste disposal will be coordinated by TSG, if necessary. Sampling will be conducted to determine waste characterization if necessary. Appropriate transport containers and licensed haulers will be used. Appropriate, licensed treatment and disposal facilities will be used.

VII. CONTINGENCY PLAN

A. Injury or Illness

If an injury or illness occurs, take the following action:

- Get first aid for the victim immediately.
- Notify the Site Health and Safety Officer. The Site Health and Safety Officer is responsible for immediately notifying the Project Manager. If a subcontractor employee is injured, the Subcontractor Field Supervisor will also complete their own injury/illness investigation and submit a copy of their report to the TSG Health and Safety Coordinator as well. Each subcontractor will be responsible for reporting and recording all recordable injuries.
- The Site Health and Safety Officer will assume charge during a medical emergency.

B. Site Incident

If an incident occurs, take the following action:

- Notify the Site Health and Safety Officer immediately. The Site Health and Safety Officer is responsible for immediately notifying the Project Manager, and preparing and submitting a Site Incident Report (Attachment 11) to the Health and Safety Coordinator within 24 hours.

C. Local Emergency and Project Telephone Numbers

(See Page 1)

D. Emergency Routes

Emergency route from the site is shown on the Hospital Location Map (Attachment 2). From the Site, drive west on E. Ramon Road approximately 3 miles. Turn right on N. Indian Canyon Drive. Drive north approximately 1.5 miles. Desert Hospital is located at 1150 N. Indian Canyon Drive.

ATTACHMENT 1

THE SOURCE GROUP, INC.

SUBCONTRACTOR TRAINING AND MEDICAL CLEARANCE RECORD

Subcontractor:_____

Address:_____

Employees Assigned to Project:_____

_____

I certify the above employees assigned to this project have received training, medical clearance, and respirator fit-testing according to the Health and Safety Plan and the Occupational Safety and Health Administration Standard on Hazardous Waste Operations and Emergency Response (29 CFR 1910.120). If any of these employees are injured, I will submit an injury report to the TSG Health and Safety Coordinator within 24 hours.

_____ _____

Name Signature

_____ _____

Title* Date

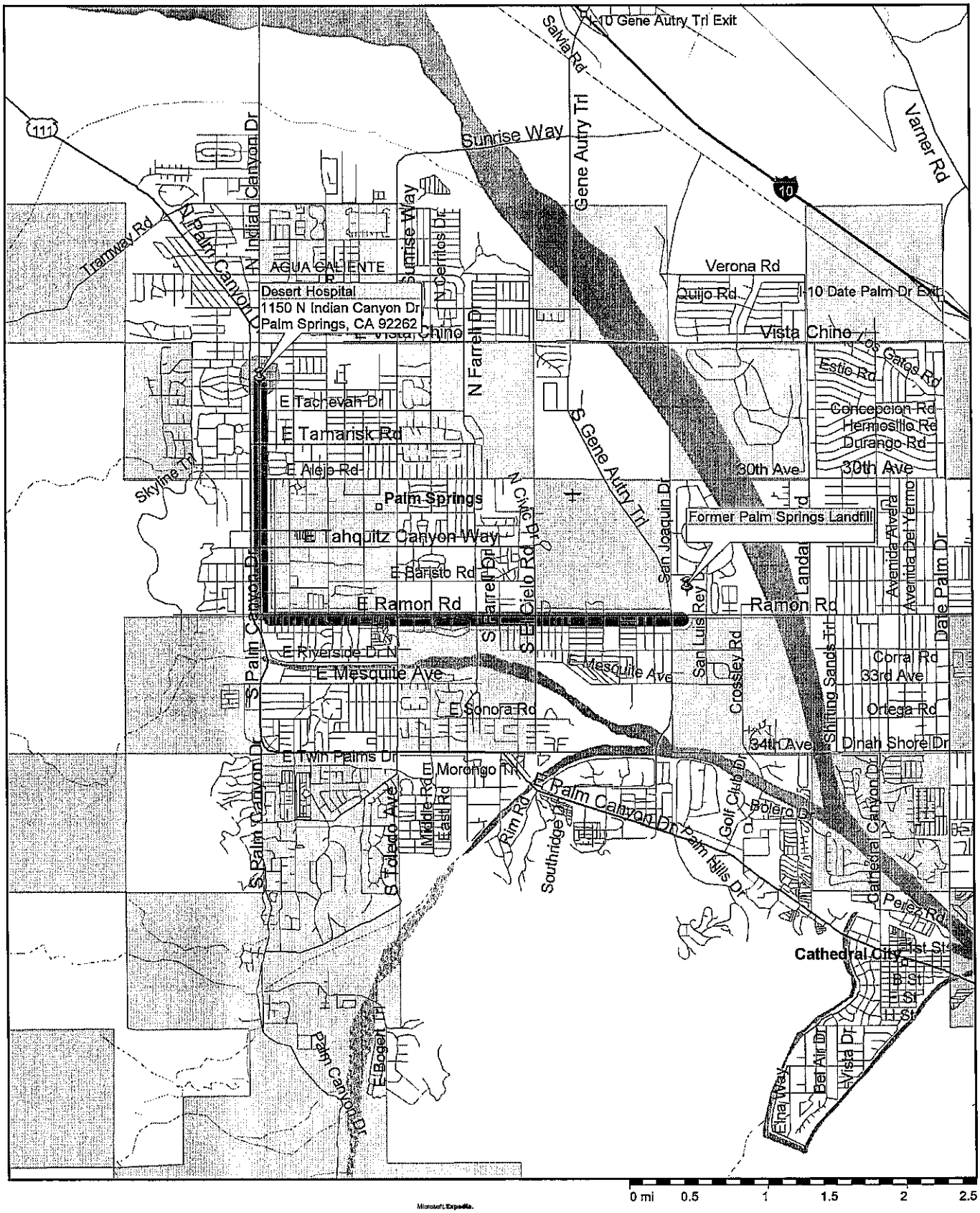
*Subcontractor Supervisor or Manager only.

ATTACHMENT 2

THE SOURCE GROUP, INC.

HOSPITAL LOCATION MAP

Hospital Location Map

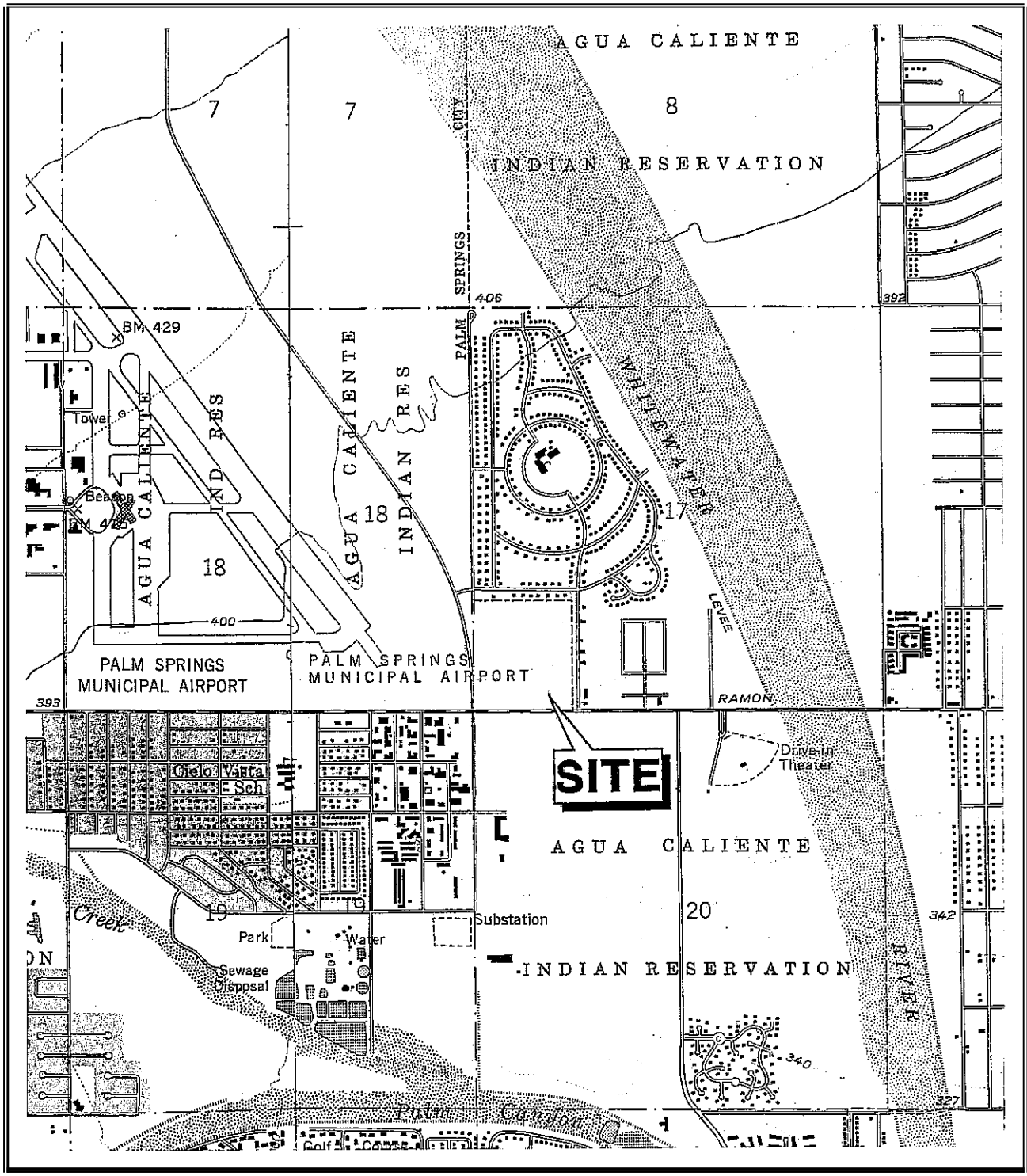


Microsoft Expedia
Streets98

ATTACHMENT 3

THE SOURCE GROUP, INC.

SITE MAPS
(attached)



Source: U.S.G.S. 7.5-Minute Cathedral City and Palm Springs Quadrangle, Photorevised 1981/1988
Site Address: Northeast Corner of Ramon Road and Gene Autry Trial
Scale: 1:2000

DRAFTED BY: JPW	CHECKED BY JME	PROJECT NO 02-GLL-001	FIGURE NO. 1	SITE ID: FORMER PALM SPRINGS LANDFILL	The source Group, Inc. 501 Marin Street Suite 112B Thousand Oaks, CA 91360
DWG DATE 2/03/03	REV. DATE: N/A	CLIENT Geiger, LLC	TITLE: SITE LOCATION MAP		
FILE NAME: SLM- PalmSprings doc					

DATE: 10/03

FILE NAME: SSP-19A.BSM

PROJECT NO.:

LIMITS OF EXISTING LANDFILL

PROPOSED SHOPPING CENTER DEVELOPMENT
EXCEL PROPERTY MANAGEMENT SERVICES, INC.
N.E.C. GENE AUTRY TRAIL AND RAMON ROAD

FIGURE: 3

The Source Group, Inc.

LEGEND

LIMIT OF EXISTING LANDFILL

NOTES:

INFORMATION FOR THIS DRAWING WAS OBTAINED IN PART FROM: PREVIOUS SKETCHES. DIMENSIONS AND BEARINGS NEED TO BE VERIFIED

SSP-19A.BSM.100303.DWG (1:1)

MAJOR D
28,000 SF

LOADING

MAJOR C
28,000 SF

GARDEN CENTER 2

MAJOR B

STOCKROOM

LUMBER
OFF-LOADING

MAJOR A

OUTDOOR GARDEN
CENTER 1

PICK-UP
CANOPY

MAJOR E
18,000 SF

MAJOR J
8,000 SF

MAJOR F
20,000 SF

MAJOR G
13,440 S.F.

RECEIVING

PAD 3
1,800 SF

RETAIL 3
4,800 SF

RETAIL 4
4,800 SF

MAJOR I
10,000 SF

MAJOR H
10,000 SF

MULTIPLE
PAD 1

MULTIPLE
PAD 2

SERVICE
COURT

ARCHED
PATIO

EXISTING ENTRANCE

GENE AUTRY TRAIL (NEW HIGHWAY 111)

SAN LUIS REY DRIVE

RAMON ROAD

LEGEND

PROPOSED LIMITS OF BURIED DEBRIS

N

0 150 300

APPROXIMATE SCALE IN FEET

NOTES:

INFORMATION FOR THIS DRAWING WAS OBTAINED IN PART FROM: PREVIOUS SKETCHES. DIMENSIONS AND BEARINGS NEED TO BE VERIFIED

DATE	FILE NAME	PROJECT NO.:
10/03	SSP-19B.BSM	

PROPOSED LIMITS OF BURIED DEBRIS

PROPOSED SHOPPING CENTER DEVELOPMENT
EXCEL PROPERTY MANAGEMENT SERVICES, INC.
N.E.C. GENE AUTRY TRAIL AND RAMON ROAD

The Source Group, Inc.

FIGURE: 4

ATTACHMENT 4

THE SOURCE GROUP, INC.

UTILITY CLEARANCE LOG

Date: _____

"One-call" confirmation number and date contacted: _____

"One-call" expiration date: _____

Subcontractor locating firm and invoice number: _____

Facility contact person & telephone number: _____

Facility drawings reviewed: _____

Verbal/written sign-off of clearance by facility contact: _____

Pressurized lines/shut-off valves identified:* _____

Underground utilities/lines identified:* _____

Underground utilities/lines marked on-site by: _____

Overhead utilities/lines identified:* _____

Overhead utilities/marked on-site by: _____

*Mark on copy of facility drawing or include in Site sketch (Attachment 5).

Clearance contact:

_____	_____	_____
Name (TSG employee only)	Signature	Date

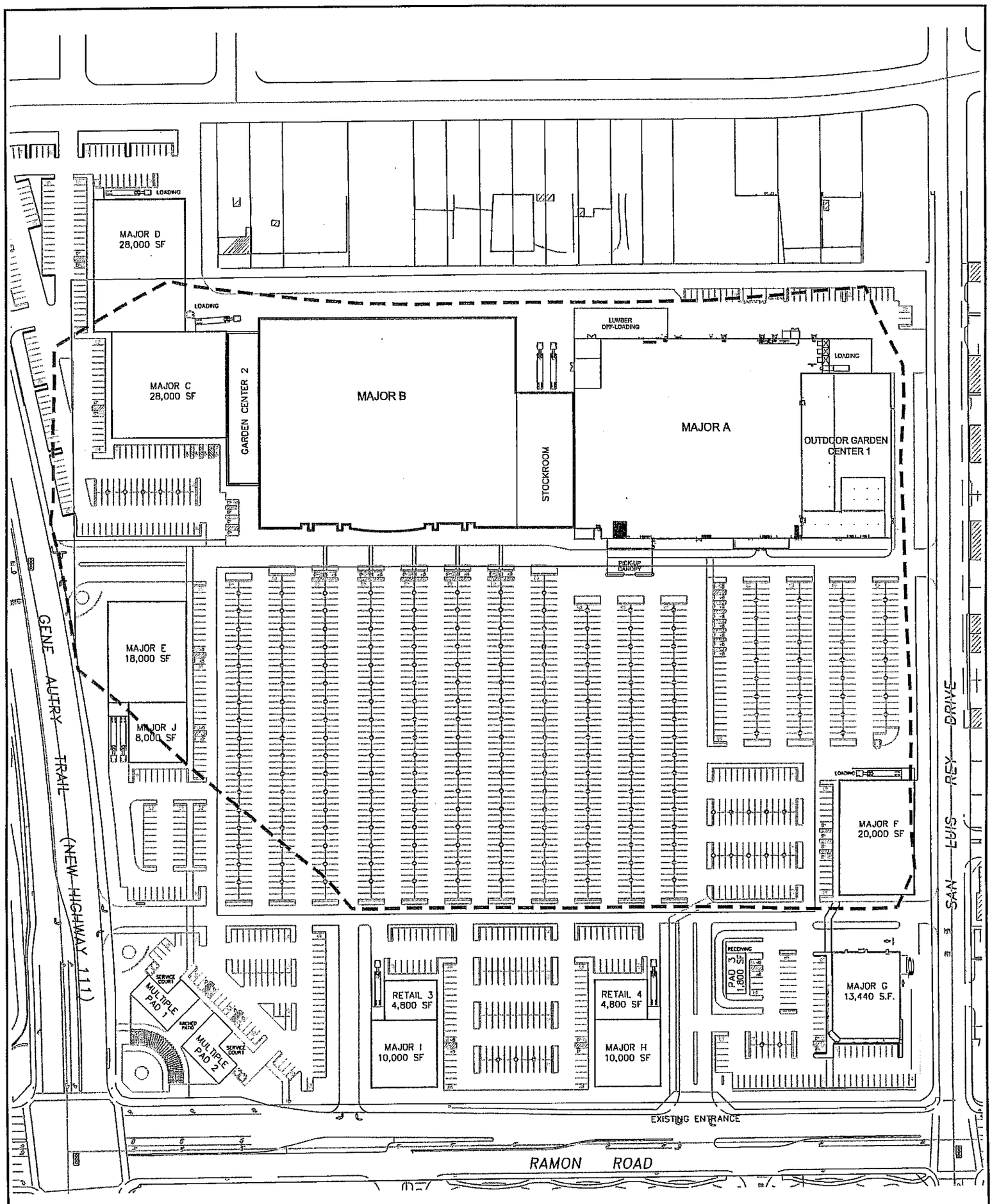
Clearance Reviewed by:

_____	_____	_____
Name (TSG Project Manager)	Signature	Date

ATTACHMENT 5

THE SOURCE GROUP, INC.

UTILITY CLEARANCE MAP



LEGEND

LIMIT OF EXISTING LANDFILL

Annotate Map at Time
of Utility Clearance

0 150 300
APPROXIMATE SCALE IN FEET

NOTES:
INFORMATION FOR THIS DRAWING WAS OBTAINED IN PART FROM: PREVIOUS SKETCHES. DIMENSIONS AND BEARINGS NEED TO BE VERIFIED

DATE:	FILE NAME:	PROJECT NO.:
10/03	SSP-19A.BSM	

LIMITS OF EXISTING LANDFILL
PROPOSED SHOPPING CENTER DEVELOPMENT
EXCEL PROPERTY MANAGEMENT SERVICES, INC.
N.E.C. GENE AUTRY TRAIL AND RAMON ROAD

The Source Group, Inc.

FIGURE: 3

SSP-19A.BSM.1003-3.DWG (1:1)

ATTACHMENT 6

TSG

AIR MONITORING EQUIPMENT CALIBRATION/CHECK LOG

Date	Instrument/ Model No.	Serial No.	Battery Check OK?	Zero Adust OK?	Calibration Gas (PPM)	Reading (PPM)	Leak Check (Colorimetic Tube Pump)	Performed By	Comments

Notify the Health and Sa ty Officer immediately if a PEL, TLV, or other limit is exceeded.

ATTACHMENT 7

TSG

AIR MONITORING LOG

Date	Time	Location	Source / Area / Breathing Zone	Instrument	Concentration / Unit	Sampled By

Notify the Health and Safety Officer immediately if a PEL, TLV, or other limit is exceeded.

ATTACHMENT a

THE SOURCE GROUP, INC.

DAILY HEALTH AND SAFETY BRIEFING LOG

Date:_____

Start Time:_____

Subjects Discussed:_____

_____

_____

_____

_____

Print Name	Signature
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Meeting Conducted By:_____ _____

Name (Site Health and Safety Officer) Signature

ATTACHMENT 9

THE SOURCE GROUP, INC.

HEALTH AND SAFETY PLAN ACKNOWLEDGEMENT AND AGREEMENT FORM

(All TSG and subcontractor personnel must sign.)

I acknowledge I have reviewed a copy of the Health and Safety Plan for this project, understand it, and agree to comply with all of its provisions. I also understand I could be prohibited by the Site Health and Safety Officer or other TSG personnel from working on this project for not complying with any aspect of this Health and Safety Plan:

Name	Signature	Company	Date
Name	Signature	Company	Date
Name	Signature	Company	Date
Name	Signature	Company	Date
Name	Signature	Company	Date
Name	Signature	Company	Date
Name	Signature	Company	Date
Name	Signature	Company	Date
Name	Signature	Company	Date
Name	Signature	Company	Date
Name	Signature	Company	Date

ATTACHMENT 10

TSG INJURY/ILLNESS REPORT

(Use additional space **as** necessary)

DATE OF INCIDENT_____CASE NO._____TIME OF DAY_____

EMPLOYEE NAME_____DATE OF BIRTH_____

HOME ADDRESS_____PHONE NO._____

SEX MALE _____FEMALE_____ AGE_____ JOB TITLE_____

SOCIAL SECURITY NO._____ OFFICE LOCATION_____DATE OF HIRE_____

WHERE DID INCIDENT OCCUR? (INCLUDE ADDRESS)_____

_____

ON EMPLOYER'S PREMISES? YES _____ NO_____ PROJECT NAME/NO._____

WHAT WAS EMPLOYEE DOING WHEN INCIDENT OCCURRED? (BE SPECIFIC)_____

_____

HOW DID THE INCIDENT OCCUR? (DESCRIBE FULLY)_____

_____

_____

_____

WHAT STEPS COULD BE TAKEN TO PREVENT SUCH AN INCIDENT?_____

_____

_____

_____

OBJECT OR SUBSTANCE THAT DIRECTLY CAUSED INCIDENT?_____

_____

DESCRIBE THE INJURY OR ILLNESS_____

PART OF BODY AFFECTED_____

NAME AND ADDRESS OF PHYSICIAN_____

IF HOSPITALIZED, NAME AND ADDRESS OF HOSPITAL_____

LOSS OF ONE OR MORE DAYS OF WORK? YES/NO_____ IF YES-DATE LAST WORKED_____

HAS EMPLOYEE RETURNED TO WORK? YES/NO_____ IF YES-DATE RETURNED_____

COMPLETED BY (PRINT)_____

(Site Health and Safety Officer)

SIGNATURE _____ EMPLOYEE SIGNATURE_____

DATE _____ DATE _____

This report must be completed by the employee's supervisor or Site Health and Safety Officer immediately upon learning of the incident.

ATTACHMENT 11

THE SOURCE GROUP, INC.

SITE INCIDENT REPORT

(Attach additional documentation as necessary)

Date of Incident:_____ **Time of Incident:**_____

Location of Incident:_____

Project Name: _____ **Project Number:** _____

Type of Incident* (check those that apply):

_____ "Near Miss" _____ Vehicle Accident

_____ Underground Property Damage _____ Fire

_____ Above-ground Property Damage _____ Evacuation

_____ Chemical Exposure _____ Regulatory Inspection

_____ Other (describe)_____

*Submit copy of Health & Safety Plan and Attachments for field-related incidents.

Description of Incident:_____

_____

Cause of Incident:_____

_____

Action Taken:_____

_____

Future Corrective Action:_____

_____

Estimated Amount of Damage:_____

Investigator Name: _____ **Signature:** _____

Date: _____