APPENDIX B

OPERATIONS PLAN

B.5 COVER
(27 CCR, SECTION 21600(b)(6)(A))

B.5.1 COVER MATERIALS (27 CCR, SECTION 21600(b)(6)(A))

Excavation/soil stockpiling operations for daily cover use have been and will continue to be conducted concurrent with refuse disposal throughout the development of the landfill. All near term soil requirements for daily and intermediate cover uses are anticipated to be met with on-site soils generated from excavation and stockpiling activities. Soils are excavated from future phases of development and are placed in designated stockpile areas.

Excavation and stockpiling operations are conducted so as not to interfere with disposal and other ancillary operations. Proper drainage control is maintained and the stockpile areas are graded to promote lateral run-off of precipitation into drainage control facilities. Erosion control for the stockpiles is provided by either silt fences, hay bales, earthen berms or sand bags. In addition, SCL has a Storm Water Pollution Prevention Plan (SWPPP) prepared to comply with the National Pollutant Discharge Elimination System (NPDES) requirements included in the Statewide General Permit for Industrial Activities. For additional information regarding excavation activities, see Section C.3.2.

B.5.2 COVER FREQUENCY (27 CCR, SECTION 21600(b)(6)(B))

The purpose of daily cover soil or an equivalent alternative daily cover (ADC), as approved by the LEA, is to provide a suitable barrier to the emergence of vectors, prevent windblown trash and debris, minimize the escape of odors, prevent excess infiltration of surface water and hinder the progress of potential combustion within the landfill. Daily cover in the form of soil material or an ADC is placed over all exposed refuse at the end of each working day. Except in areas where ADC is used, the working face is covered with a minimum of six (6) inches of compacted soil after the facility is closed to the public. The soil is placed and compacted with heavy equipment and sloped to minimize infiltration of precipitation and promote surface water runoff. A soil sealant is also applied, in

conformance with the dust abatement program developed in conformance with SCAQMD Rule 403.

Only soil will be used as daily cover on any operating day before a period when the landfill will be closed for more than 24 hours. This will generally occur on Saturdays and the day before a scheduled holiday. A soil sealant will be applied to areas that have not previously received soil sealant at the same time.

B.5.2.1 ALTERNATIVE DAILY COVERS (27 CCR, SECTION 21600(b)(6)(B))

Alternative daily covers (ADC) will be used to conserve air space and native soils. In addition, the use of ADC will provide the operator an alternate method of covering the working face during inclement weather. SCL will utilize geosynthetic panels, processed green material, and/or soil in any combination on any particular day as permitted by the current SWFPs for the City and County SCL (see Appendix D). Other ADC materials specifically approved in 27 CCR may also be utilized as authorized by the appropriate regulatory agencies. ADC materials not specifically approved in 27 CCR will be subject to site specific demonstration projects that are approved by the LEA to establish suitability as daily covers. Prior to the use of other ADC materials, the facility will comply with 27 CCR, Section 20690(b) requirements.

SCL will use geosynthetic fabric or panel products (tarps) and processed green material as ADC material. The tarps are manufactured by several companies and are available in several sizes with 75 feet by 100 feet panel the most predominant size in use. Other sizes will be used depending upon the area to be covered and their ease in deployment. The tarps are made of polyethylene or polypropylene and typically about 70 mils in thickness. The tarps are ultraviolet stabilized, chemical resistant, nylon reinforced, and maintain a low permeability to provide maximum run-off. The tarps will be secured by sandbags, tires or soil and deployed either manually or with the use of heavy equipment.

Tarps will be removed from the working face at the beginning of the business day and inspected for rips or tears and repaired as necessary. Generally, rips or tears twelve inches or larger will be repaired prior to re-deployment. Tarps will

not be used if the landfill will be closed the following day. Native soils will be used exclusively as daily cover material on those days.

Processed green material used as ADC will be spread over the compacted refuse surface at the conclusion of the workday. The area of refuse receiving processed green material ADC will be completely covered in a compacted layer with a minimum of 6 inches and no more than an average of 12 inches. Processed green material ADC utilized on the prior day will either be covered by additional refuse or receive soil daily cover by the conclusion of work on the following day. Processed green material ADC will not be used if the landfill will be closed the following day. Native soils will be used exclusively as daily cover material on those days.

Processed green material utilized for ADC will originate from either off site processor(s) or from an on site processing operation that may be established in the future. Regardless of the source, the processed green material ADC will be clean and free of refuse contamination and be processed (ground, shredded, screened, or by other means) to provide a compacted material free of open voids in the ADC cover.

Geosynthetic tarps and processed green materials have been shown to fulfill the regulatory prescriptive standards for daily cover. The geosynthetic tarps and processed green material ADC have been determined by the CIWMB to provide equivalent protections as soil cover while reducing the need for on-site soil usage. Vectors usually associated with landfill operations included flies and rodents. Previous studies, including the ADC geosynthetic tarps site specific demonstration project, indicate that rodents are not common to the facility and should not be considered a problem. ADCs will help minimize dust generated on site by reducing the number of truck trips per day for daily soil cover. Watering of the approaches to the working face and roadways will continue.

The use of soil during the rainy season is cumbersome and at times, difficult to apply. Using ADC tarps, and/or processed green material will minimize this problem and improve operations near the working face by providing for a safer working environment. Additionally, the use of ADC in conjunction with other winterization activities will minimize the amount of soil "tracked" onto the main haul road.

Assessment of the ADC's performance will occur throughout its use on the landfill. Extensive use of geosynthetic tarps and processed green material as ADC throughout the State of California have demonstrated that use of such does not impact water quality.

The following Table 5 summarizes the properties of the ADC material with the corresponding properties of soil that have been used at the site for daily cover:

TABLE 5
SUNSHINE CANYON LANDFILL
COMPARISON OF GEOSYNTHETIC TARPS AND PROCESSED GREEN MATERIAL TO DAILY SOIL COVER

Property	Daily Soil Cover	Synthetic Tarps	Processed Green Material
Hazardous or pathogenic nature of the cover	None	None	None
Resistance to heat and fire after application and compaction	On site soils do not burn or propagate flame and will have a tendency to smother fires	The tarps used will have a flame retardant coating applied	Naturally occurring moisture in the green material and the 1-day limitation in use will max. Resistance to heat and fire.
Field permeability after application and compaction	Soil analysis indicate a permeability of 1.0 x 10^{-5} at 90% compaction	Most tarps are water repellent; runoff will be controlled and managed accordingly	Like soil, processed green material will absorb water until the surface is saturated to cause lateral run-off.
Compaction capability of the cover	Soils are conducive to compaction	Tarps will not be subject to compaction	Processed green material is conducive to compaction as noted in the applicable regulations.
The ability of the cover to control the emergence, attraction, or harborage of vectors	Vectors can emerge from the waste; however, compacting the cover significantly reduces emergence and breeding	Control similar to soil; waste types and operation dictate severity of emergence and attraction	Similar performance as soil.

The use of flame retardant tarps and the moisture retained in processed green material reduces the potential for a fire occurring or spreading. If a fire were to occur, the following procedures would be followed:

- Isolate the burning materials from the other wastes;
- Smother the burning waste with soil;
- Allow the waste pile to cool for 24 hours; inspect for smoldering;
- Incorporate into the working face if safe; and
- Report all incidents.

Current and prior experiences with fires at the site have not indicated a problem. Soil will be used as daily cover on Saturdays or more frequently as required to maintain a safe and neat working environment. On those days when soil will be used as cover, operations staff will compact the soil.

In general, the waste types covered with the geosynthetic tarps and/or processed green material will be municipal solid wastes, commercial and industrial waste. If a tarp needs to be replaced or is out of service for repair, soil or green waste will be used until repaired or replaced.

Processed Green Material Calculation

As noted previously, the working face area will be approximately 120,000 square feet. An area of this size, if completely covered with an average depth of 12 inches of processed (95 percent less than 6 inches) green material ADC would consume approximately 1,550 tons per day of processed green material ADC. This quantity is calculated as follows:

Active Face Area to be Covered	=	120,000 sq. ft.
Depth of ADC Material	=	12 in. (1 ft.)
Compacted ADC Material Density	=	700 lbs./cu. yd. (typical)

Quantity of ADC Material = (120,000 sq.ft.) x (1 ft. depth) x 700 lbs./cu.yd.)
(27 cu.ft./cu.yd.) x (2000 lbs./ton)

=1,555 tons (round up approx. 1,550 tons)

It is unlikely that the operations will have access to this quantity of processed green material on a regular basis, therefore, the operation will also make use of geosynthetic tarp ADC and/or soil in. Furthermore, SCL is limited by its local land use entitlements to an average tonnage of 6,600 tons per week (1,100 tpd average on a 6-day week) of exempt waste, such as green waste used for ADC.

During periods of inclement weather (e.g. high winds), when use of ADC tarps is not practical, its use may be suspended and soil or green waste used as daily cover.

Odor will be evaluated (qualitatively) if the site receives complaints that can be attributed to the use of the ADC tarps or processed green material. Fires will be reported to the LEA within 24 hours of occurrence. SCL will continue its routine litter collection and abatement program. The working face will be generally maintained at the dimensions set forth above but may be larger or smaller as waste inflow rates increase or decrease respectively.

B.5.2.2 BENEFICIAL REUSE WASTE TYPES

Processed asphalt and concrete rubble will be used in road base and for construction of wet weather operation pads and access roads. This beneficial reuse application will be used to conserve native resources and to reduce the importation of like construction material on-site, thus reducing truck traffic. Other processed asphalt and concrete rubble material not specifically approved in the regulations will be subject to site specific demonstration projects that are approved by the LEA to establish suitability as beneficial reuse.

Processed asphalt and concrete rubble will be used for roads and wet weather operations pads. Material will be spread throughout the pre-designated area at an average depth of approximately 24 inches to provide stable, leveled, and compacted working surface for vehicles to utilize. Material will be spread and handled utilizing heavy equipment and manually as necessary. These working surfaces will be especially necessary during wet conditions to avoid trucks from getting stuck in muddy conditions. The following analysis can be used as a guideline but actual amounts will be dependant on specific weather conditions during the wet season.

Annually the site develop/constructs approximately 3 wet weather pads and wet weather pad access roads. The approximate dimensions are 350 ft. x 350ft. totaling 122,500 sq.ft. In addition, the operation develops approximately 1,000 linear feet, and redevelops an additional 1,000 linear feet, of necessary access/haul roads at an approximate width of 50 ft., totaling 100,000 sq.ft. The annual combined area of wet weather pads and access roads is approximately 467,500 sq.ft.

Construction of wet weather pads and roads would consume approximately 56,100 tons of processed asphalt and concrete rubble material. This quantity is calculated as follows:

Wet weather pad	=	367,500 sq.ft
Access/haul roads	=	100,000 sq.ft.
Compacted Density	=	3,240 lbs./cu. yd. (Ref: Vulcan Materials, Inc.)

$$\text{Quantity of Material} = \frac{(467{,}500 \text{ sq.ft.}) \times (2 \text{ ft. depth}) \times (3240 \text{ lbs./cu.yd.})}{(27 \text{ cu.ft./cu.yd.}) \times (2000 \text{ lbs./ton})}$$

$$= 56{,}100 \text{ tons}$$

The following lists the total tonnage of processed asphalt and concrete rubble material received and utilized at both SCL City and SCL County for beneficial reuse in recent years.

Years	Tonnage Received
2005	72,380
2006	53,691

In general, operations has had ample sources of processed asphalt and concrete rubble material. Materials of this type are generated in the course of road and parking lot construction/demolition and are received intermittently throughout the year in quantities of up to several thousand tons per day. Material received during periods when wet weather pads or roads are under construction is used as it is received; otherwise it is placed in a stockpile for storage until it is needed. These materials are used solely for the purposes described and are not discarded or landfilled. In the event there are shortages of processed asphalt and concrete rubble material, operations may purchase them from vendors as needed.

B.5.3 INTERMEDIATE COVER PLACEMENT (27 CCR, SECTION 21600(b)(6)(C))

Intermediate cover is defined in 27 CCR, Section 20164, as cover material on areas where additional cells are not to be constructed for 180 days or more to control vectors, fires, odors, blowing litter, scavenging and drainage. In accordance with 27 CCR, Section 20700, a minimum 12-inch thick layer of suitable cover material or equivalent (as approved by the LEA) is placed over the top, side slopes and working face of an advancing lift, refuse cell or portions of the disposal area where no additional refuse is to be deposited within 180 days.

In accordance with Los Angeles County Conditional Use Permit (CUP) Conditions, BFI will establish a temporary vegetation cover on areas of the landfill that have received intermediate cover and are to remain inactive for a period longer than 180 days. Temporary vegetative cover is established according to recommendations from qualified biologists who have evaluated soil conditions at the SCL and specified appropriate planting mixes, soil amendments and fertilizers.

B.5.4 ALTERNATIVE INTERMEDIATE COVER

No AICs are proposed for SCL. In the event that an AIC is proposed, SCL will comply with the requirements of 27 CCR, Section 20700, and would obtain approval from the appropriate regulatory agencies.

B.5.5 FINAL COVER (27 CCR, SECTION 21090(a)(2))

The purposes of a final cover are to minimize surface water intrusion, accommodate settlement and subsidence, isolate wastes from the surface, and reduce the potential for odors and LFG emissions. The cover also provides a base for vegetation, which will reduce drainage velocities and minimize erosion and abrasion of the cover. The State minimum standard prescriptive design for a landfill requires a single low-permeability soil layer cover or a cover which meets the permeability of the bottom liner system.

Several factors were taken into consideration in evaluating the cover design for SCL to ensure adequate performance of the final cover. These factors included regulatory requirements, the geometry of the landfill, local climatic conditions, potential landfill settlement, erosion protection, vegetative growth, the waste liner

system design and end use at closure. Section E.1.3 of Part E includes information regarding the proposed final cover design at SCL.

B.6 HANDLING (27 CCR, SECTION 21600(b)(7))

B.6.1 PUBLIC HEALTH DESIGN PARAMETERS (27 CCR, SECTION 21600(b)(7)(A))

SCL has been designed to minimize the propagation or harborage of flies, rodents or other vectors and the creation of nuisances by reason of solid wastes being deposited at the site. Factors taken into consideration include air and water quality, noise, odor and public safety. Measures established by SCL to ensure that these parameters are protected or controlled are discussed in detail in Section B.7.

B.6.2 SALVAGING ACTIVITIES (27 CCR, SECTION 21600(b)(7)(B))/ VOLUME REDUCTION ACTIVITIES (27 CCR, SECTION 21600(b)(7)(C))

Recycling and resource recovery operations are important to conserving landfill space throughout the State of California. Legislation under AB 939 was enacted in 1990 to establish mandatory recycling goals. The specific actions, activities and programs to be implemented within a given county were developed by each city in Los Angeles County and were required to be incorporated into an integrated waste management plan. Salvaging (i.e. removal of recyclables from the general MSW waste stream) is not performed at the SCL with the exception of large appliances which are moved to the recytcling area for temporary storage. However, source separated recyclables and green waste are accepted. The green waste is either shipped off-site to a commercial green waste processor or stored until a portable grinder is brought on-site for processing/volume reduction. These recycling activities were previously discussed in Sections B.3.7.11 and B.3.7.12.

B.6.3 EQUIPMENT (27 CCR, SECTION 21600(b)(7)(D))

B.6.3.1 ONSITE EQUIPMENT

A variety of equipment is used for the operation of the SCL. Onsite equipment serve disposal and site maintenance needs to allow operations of SCL to be conducted in an environmentally sound manner and to comply with all

applicable regulatory requirements. Onsite equipment is routinely maintained to provide ongoing compliance with State minimum standards. The numbers and types of equipment utilized to meet operational requirements are adjusted as necessary based on landfill development and refuse inflow rates. The maximum anticipated tonnage can be accommodated with the existing on-site heavy equipment. Table 6 lists the equipment required at peak permitted operation of 12,100 TPD.

B.6.3.2 EQUIPMENT MAINTENANCE PROCEDURES

A comprehensive preventive maintenance program is in place at Sunshine Canyon Landfill for the heavy equipment used for refuse disposal and construction activities. Preventive maintenance programs are established subject to equipment manufacturer's specifications. The General Manager is responsible for coordinating maintenance inspections, scheduling necessary repairs, providing replacement equipment, and preparing a preventive maintenance plan based on the manufacturers' recommended maintenance schedules.

Refuse placement and construction equipment are inspected daily by on-site landfill personnel. Preventive maintenance activities, including lubrication and oil changes, filter cleaning, and scheduled replacement of minor parts, are carried out at the designated maintenance area on site. Equipment may be taken off-site for scheduled major overhauls. Maintenance schedules for all vehicles and motorized equipment are based on operating demands, with maintenance records maintained on site for each vehicle and piece of equipment. Should additional equipment be needed at the SCL it may be rented from the Caterpillar Dealer at Quinn Equipment at 10006 Rose Hills Road, City of Industry, California 90601.

B.6.3.3 OPERATING SITE MAINTENANCE PROCEDURES

In addition to the equipment maintenance procedures discussed above, 27 CCR, Section 20750, requires an operator to implement a preventative maintenance program to monitor and promptly repair all defective or deteriorating support facilities, environmental controls and containment systems for the landfill. All environmental monitoring and control facilities, ancillary features (i.e., access

roads, signs, gates, fencing, landscaping), containment areas and all other on-site structures are inspected routinely and maintained as necessary.

B.6.4 WASTE HANDLING (27 CCR, SECTION 21600(b)(7)(E))

The average working face of the landfill typically covers two to three acres but may be increased or decreased as waste inflows rise or fall respectively. After being processed at the scalehouse, commercial and industrial haulers follow designated routes, as designated by signs, barriers, cones, or if needed, as directed by traffic spotters, to the working face. At the working face, landfill spotters direct the waste haulers to unload at a specific area. Landfill personnel responsible for traffic control and directing customers in waste unloading areas are equipped with two-way radios to facilitate coordinated and safe control of traffic.

Landfill personnel observe the unloading operations to ensure safe operations and monitor the waste for unacceptable materials. Random loadchecks are performed at the active face, as described in Section B.6.4.1. Only trained permanent SCL employees will be assigned to these duties. No unsupervised dumping is allowed.

Special procedures have been established for safely handling waste loads delivered in end-dump trucks. These procedures are outlined as follows:

- Signage will be placed to direct end dump loads containing trash to the predetermined end dump section at the working face.
- Traffic spotter(s) are to direct the end dump to a predetermined dumping area at the working face.
- The area that the end dump will be dumping in should be as level as possible.
- Spotter(s) and all personnel and customers are not to come within 50 ft. of either side of the end dump as it is discharging its load.
- In the event that there are two or more end dumps simultaneously discharging their loads, the vehicles shall not be any closer than 50 ft. apart. Traffic, personnel or other customers outside of the truck shall not be closer than 50 ft. This 50 ft. distance guideline is meant to protect people and property in the case that an end dump should tip over and fall on its side.
- If the spotter has any problems with the driver, or if the end dump driver is indicating that he will unload his trailer in an area that has not been approved, the spotter shall immediately contact a supervisor.

A specific hand-unload area will typically be maintained for non-commercial customers delivering smaller quantities of refuse, green waste or recyclables to the landfill, at a location separate from the tipping area used by municipal and commercial waste haulers. A trained spotter equipped with a two-way radio will be stationed at the hand unload area at all times when it is in use, to direct and supervise the unloading of refuse, from these vehicles, and ensure compliance with acceptable waste policies. No unsupervised dumping is allowed.

B.6.4.1 LOAD CHECKING PROGRAM

General

A load checking program is implemented to identify and reduce the potential for disposal of infectious, hazardous, liquid, radioactive material or other unacceptable waste arriving at SCL. This program is presented in Appendix H of this JTD. The Load Checking program included in this JTD was originally prepared for the SCL County; however, it is now applicable to the combined facility. The purpose of the program is to continually examine loads of incoming waste so that hazardous waste materials that may potentially enter the site do not go undetected. On-site personnel direct haulers in order to separate commercial tip-ups from manually unloaded vehicles, but both will have load checkers to observe off-loads. A full-time SCL employee will implement the program and will be on-site to enforce the approved screening procedures.

Designated site personnel will be trained in a program by SCL to successfully conduct hazardous waste inspections by the use of video cameras, overhead mirrors, the spot-checking of loads and by questioning each incoming driver as to the nature of the load. The designated site personnel trained to conduct these inspections are Laborer/Utility Equipment Operator, Heavy Equipment Operator, Scale Clerk and Spotter. Literature outlining landfill rules and prohibited wastes will be regularly distributed to customers as necessary. If hazardous waste is detected, site personnel will follow response procedures as outlined in the load checking program in Appendix H and consistent with company policy, the L.A. City Zone Change and the CUP issued by the County of Los Angeles (see Appendix D).

Public notification of the prohibition against hazardous waste disposal is provided by means of large bilingual signs at the entrance gate and scalehouse, reading in English and Spanish:

WARNING

TRANSPORTING ANY UNAUTHORIZED HAZARDOUS WASTE TO THIS FACILITY FOR DISPOSAL IS PROHIBITED BY LAW. PERSONS VIOLATING THIS PROHIBITION ARE SUBJECT TO CIVIL AND CRIMINAL PROSECUTIONS.

Scalehouse Inspections

Scalehouse personnel identify loads with unacceptable waste by visual inspections of loads and questioning drivers. If hazardous or unacceptable wastes are found or observed in a vehicle during visual monitoring conducted at the scales, landfill personnel will reject the entire load and will complete a load rejection form. If possible, educational information on the proper disposal of rejected wastes will be provided to the customer.

Radiation monitors are located at each inbound scale. The special procedures used to detect and prevent the disposal of radioactive waste are detailed in Section 7.1.2.4 below.

Active Disposal Area Inspections

Loads which cannot be checked at the scales (e.g., closed loads) are directed to the tipping area. If unacceptable waste is identified at the tipping area before the load is dumped, the entire load is rejected and a rejection form filled out and placed in the site's operating records. In situations where this is not possible (i.e., leaking flammable materials containers), the material will be placed in the temporary hazardous materials storage area and later transported for appropriate off-site management. Random load inspections are conducted at a frequency of 1.5 per every 1,000 tons accepted with a minimum of 6 per operating day. Twelve extensive load checks per year are also required per the

City Zone Change. The random load checks are recorded on a load-checking data sheet.

Trained spotters at the working face observe waste as the loads are deposited at the working face. If unacceptable waste is discovered after a load has been dumped, the materials will be returned to the transporter when possible. If the waste cannot be returned to the transporter, landfill personnel will transport the waste to the temporary hazardous materials storage area on the same day it is discovered. The wastes will be identified, logged into the waste volume tracking record book, placed in drums or separated onto pallets, labeled, and transported for appropriate off-site management in accordance with federal and state regulations. Hazardous waste will not be stored on-site for a period longer than 90 days.

In the event that material known or suspected to be hazardous waste or radioactive material is discovered at the landfill, on-site personnel will:

- If the vehicle that delivered the waste is still present, detain the driver and obtain his driver license number, and
- Immediately make all required notifications to state and county agencies.

In the event unacceptable wastes or materials are discovered, appropriate agencies will be contacted. Depending on the nature of the material, these may include:

- The California Highway Patrol, Los Angeles County Sheriff's Department, or local police departments, depending upon jurisdiction;
- Fire Station 73 at 24875 San Fernando Road in Newhall;
- Los Angeles County, Department of Health Solid Waste Management Division;
- Los Angeles County, Department of Health Services, Hazardous Materials Section, affiliated with the County of Los Angeles Fire Warden;
- Los Angeles County Department of Radiation Management;
- State Department of Health Services, Medical Waste Program;
- The California Regional Water Quality Control Board, Los Angeles Region; and/or

- Los Angeles County Office of the District Attorney, Environmental Crimes Unit.

Special Procedures – Radioactive Material

To prevent the acceptance of radioactive material, radiation detectors are installed at the scales to screen all waste loads destined for the disposal area. The monitors are positioned adjacent to the scales and will pick up radiation on incoming loads from five feet away. The radiation monitors are set to alarm when the level of radiation emitted by a vehicle exceeds four times the background level of radiation.

If a vehicle triggers the radiation monitor, the vehicle will be directed to cross a different scale to verify radioactive material detection. If the alarm is again triggered, the vehicle is directed to the side and a member of facility management will measure radiation from the driver with a hand-held meter. If the driver triggers the radiation monitor, personnel will question the driver about whether he/she or someone he/she knows has recently had radiation therapy. If the driver of the vehicle does not trigger the radiation monitor, the load will be checked with the hand-held meter to locate the area where a radioactive source can be detected. The truck/load will then be directed to a segregated area at the landfill until officials of the Los Angeles County Department of Health Services Radiation Management Department are contacted and arrive at the site. The driver will not be allowed to dump the load until it is evaluated and approved for disposal by the County Radiation Management Department and the LEA inspector.

The radiation monitoring program, including procedures for verifying the validity of an alarm triggered by the monitoring devices, managing the suspect load and reporting the incident, is described in detail in the site's Load Checking Program, contained in Appendix H.

Special Procedures – Treated Medical Waste

Sunshine Canyon Landfill is prohibited from accepting untreated medical waste. Trained scalehouse personnel will identify treated medical waste and/or hospital

loads as they arrive at the landfill scales. Sunshine Canyon Landfill will send out Generator Waste Profile Sheets (GWPS) to the hauling companies so that they can have the hospitals/medical facilities that they serve fill out the GWPS and return them to the landfill. Scale personnel will ensure that a letter is on file certifying that the generator/medical treatment facility has properly treated the medical waste prior to processing the load. Unapproved loads will be turned away.

Scale personnel will notify the spotter, via radio, that a treated medical waste load is on its way to the active face. The spotter will direct the treated medical waste load to be dumped in an isolated location, or in a location approved by the LEA. The spotter will inspect the medical waste load to verify that the load had been autoclaved. Site personnel are not to come in direct contact with the treated medical waste. The treated medical waste will be completely covered with adequate dirt to ensure compliance with cover requirements by the end of the shift.

Hospital waste, which does not include treated medical waste, will be taken to the active face for disposal. In the event that treated medical waste is mixed with hospital waste, these loads will be taken to the area where treated medical waste is being discharged.

In the event untreated medical waste or suspected untreated medical waste is discharged to the active face, the spotter shall notify the supervisor. The facility manager, environmental compliance manager, and the LEA inspector shall also be notified of the discharge of untreated medical waste. Waste disposal operations may be diverted to another area while the load is being investigated.

The spotter will gather the following information:

- driver's name;
- driver's license number;
- driver's truck number;
- origin of load;
- time; and

- pictures, if necessary, of the untreated medical waste for the Log of Special Occurrences.

If the LEA inspector and site personnel concur that the load is untreated medical waste, the State Department of Health Services (Environmental Management Branch, Medical Waste Management Program) shall be contacted, so they can come out and inspect the load. The phone number for this program is: (213) 977-7379.

The suspected untreated medical waste load will be flagged off until the State can inspect the load at which time the LEA will determine the disposition of the load. When approved by the LEA, the facility manager will direct this area to be buried immediately with dirt and log the incident in the Log of Special Occurrences.

In the event that body parts or suspected body parts are identified, the Los Angeles County Coroner will also be contacted. The area will be cordoned off and the active area moved to another location so that the coroner and the applicable inspectors can investigate the scene. Under no circumstance will landfill personnel handle body parts, which will be removed from the site by the Los Angeles County Coroner or other public/regulatory agency, as appropriate. When authorized by the official in charge of the investigation, and with concurrence of the LEA, the facility manager will direct the area to be buried immediately and log the incident in the Log of Special Occurrences.

Los Angeles County Coroner (323) 343-0755

B.6.4.2 INCLEMENT WEATHER OPERATIONS

Specific operational procedures have been developed and implemented to minimize potential adverse affects of inclement weather on day-to-day operations at SCL. These procedures are described below for summer (i.e., dry and/or windy) and winter (i.e., rainy) conditions.

Santa Ana Conditions/High Winds

When Santa Ana conditions/high winds exist, the following measures are used at SCL to mitigate fugitive dust and litter as necessary:

- more frequent watering of access roads, soil excavation areas, and top deck areas will be implemented by having the water truck operate constantly during operations and potentially renting an additional water truck if needed;
- use of fabric tarp ADCs will be avoided and existing ADC areas will be covered with at least 9 inches of daily cover soil;
- decrease the size of the working face;
- install additional litter fences downwind of the active landfilling area; and
- designate additional site personnel full-time to litter control.

Details of the dust control program are contained in Section 7.7.1.2. The litter control program is detailed in Section 7.7.1.3.

Wet Weather Operations

Prior to the onset of wet weather each winter, one or more wet weather pads or operating areas will be prepared. The location of the wet weather pad will be determined on an annual basis, using the following criteria:

- It should have sufficient flat or gently sloping area to provide safe maneuvering and unloading of the anticipated daily volume of truck traffic.
- The pad must be accessible by an all-weather road with a compacted subgrade and surfaced with rock, concrete, or asphalt rubble or pavement.
- It must be in an area conducive to effective control of run-on of surface water during periods of prolonged or heavy rainfall.

The location of the wet weather operating area will be described in a submittal to the Local Enforcement Agency by October 15th of each year. This date may be changed upon the approval of the LEA.

The wet weather operations area will be prepared by placing asphalt, concrete or rock rubble to provide an all-weather surface for vehicle maneuvering and

unloading. Haul routes connecting the wet weather operations area will also be surfaced with similar material to ensure all-weather access. Drainage ditches, berms and siltation controls will be constructed, installed or improved in accordance with the site's Storm Water Pollution Prevention Plan, construction plans and approved annual drainage plan to ensure effective control of run-on and runoff, and prevent excessive siltation of runoff.

The main haul road, scales and other paved areas will be cleaned regularly to remove mud and dirt left by trucks and other vehicles, as required by the site's Conditional Use Permit. In addition, sedimentation basins and other drainage structures will be cleaned as necessary.

The wet weather operations area will be used only on days when rainfall has made the normal operating area inaccessible or unsafe for disposal operations. The Site Manager will determine when use of the wet weather area is necessary, and when operations may return to normal areas.

Wet weather operations are conducted similar to normal operations, with the following exceptions;

- In order to conserve the all-weather maneuvering and unloading area, waste is unloaded at one edge of the pad, and pushed by dozers and compactors to the fill area, before it is compacted and covered.
- Additional rubble for surfacing the pad is brought to the wet weather area as needed to replenish material that is lost as waste is pushed from the unloading area to the compaction and covering area. Haul roads and drainage features are also maintained as needed during rainy periods.

B.7 CONTROLS (27 CCR, SECTION 21600(b)(8))

B.7.1 NUISANCE CONTROL (27 CCR, SECTION 21600(b)(8)(A))

The following sections describe those measures established by BFI to eliminate and/or minimize those nuisances associated with the operation of SCL to meet the intent of 27 CCR, Section 21600(b)(8)(A).

B.7.1.1 FIRE CONTROL (27 CCR, SECTION 21600(b)(8)(B))

Fire prevention and control programs at the SCL address three principal types of potential fire emergencies: fire in the waste; brush fires; and structure fires. In all cases, landfill personnel and equipment are first responders, with secondary support from the Los Angeles County Fire Department which has its nearest station on San Fernando Road in Newhall.

On-site fire fighting resources include landfill equipment—water trucks, dozers, scrapers and other equipment, the 100,000 gallon and 265,000 gallon water storage tanks, and the on-site water distribution system. Two water truck fill stations are provided, one on the County portion of the site and one on the City portion of the landfill. Fire hydrants are placed at minimum 1000-foot intervals along the main access road.

The water supply system and other on-site resources and programs at the site maintain compliance with applicable conditions of the County CUP, including:

Condition 52:

Landfill gas flares shall be below the adjacent interior ridges (unless otherwise required by the South Coast Air Quality Management District) and the flames shall be totally contained within the stack. Flame arrestors shall be provided to the satisfaction of the County Forester and Fire Warden.

Condition 54:

The permittee shall maintain onsite fire response capabilities, construct access roads, provide water tanks, water mains, fire hydrants and fire flows and perform brush clearance to the satisfaction of the County Forester and Fire Warden.

Condition 55:

All onsite fuel storage tanks shall be installed and necessary containment and air quality controls for the tanks provided, in accordance with the requirements of the County Forester and Fire Warden, the County Department of Public Works, the Regional Water Quality Control Board, and the South Coast Air Quality Management District.

All landfill personnel are provided with fire prevention/response training, including the location and use of fire extinguishers provided throughout the site to extinguish small fires. Emergency telephone numbers and instructions are posted inside all buildings. All fire incidents will be entered in the site's Special Occurrences Log.

Procedures specific to each potential type of fire emergency are discussed below.

Waste Fires:

Waste fires are most frequently caused by refuse that has caught fire inside a collection or transfer truck. When such occasions are detected before the load is dumped, the vehicle is directed to an isolated area where it is dumped and the fire extinguished using dirt and/or water trucks. If burning or smoldering material is noticed after a load is discharged at the active face, the material is immediately separated from the other material by dozers or compactors, pushed to a soil-covered area, and the fire extinguished with dirt and/or water.

Subsurface waste fires will be countered by the following measures:

- inspection of the affected area and removal of potentially ignitable vegetation or other materials;

- shutting down all LFG extraction wells in the vicinity of the affected area;
- evaluating the extent of the affected area by identifying areas of rapid settlement, large surface cracks with smoke or water vapor emissions, or by probing the soil with temperature probes;
- watering the waste mass if the fire appears to be near the surface;
- capping the area with additional compacted on-site soils; and
- other alternative methods as needed.

The County Fire Department may be notified, at the option of the Site Manager, when on-site fire response measures are initiated.

Local Brush Fires:

BFI will minimize the potential for brush fires by clearing all brush within 100 feet of landfill operating areas. In the event of an on-site brush fire, the Fire Department will immediately be notified, and landfill equipment will be diverted as needed to construct fire breaks and otherwise attempt to control the fire and prevent its spread. BFI will also make its equipment available to the Fire Department, if requested, to combat off-site brush fires in the vicinity of the landfill. In all cases, however, landfill personnel will be instructed to avoid placing themselves or their equipment in hazardous or dangerous situations suitable only for fully trained professional fire fighters.

Helicopter pads are available at the SCL for use in emergency situations only (see Figure 13). The expected user of these pads is the Los Angeles County Fire Department Air Operations Section who has requested the pads for use in supporting local fire fighting efforts.

Landfill Operating Procedures for Helicopter Pad Area:

1 Notify the City LEA that we have observed the helicopter pads in use.

2 Send water trucks to the helicopter pad to wet down the pad during the pad and area usage.

4 Record the approximate start and stop time of the pad usage in the Special Occurrence Log for the site.

5 Allow a breakable lock on front gate for Fire Department use.

6 Allow access to site water, if available, for the fire department to fill the planes/use.

Regional Brush and Forest Fires

In the event of a major regional wildfire that potentially could threaten the landfill, BFI will take the following measures:

- Site management will establish and maintain contact with fire authorities to determine the potential for the site being impacted by the fire.
- If site management, in consultation with fire authorities, determines there is a significant threat of fire or extreme smoke impacting the site during the present working day, the following actions will be taken to close the site:
  1. The scalehouse will stop accepting waste, and major customers will be informed that the site is closed.
  2. Management will ensure that critical site records are secured in fireproof safes or are removed from the site.
  3. Personnel will be released from the site at the discretion of supervisors. In the event of a sudden or unexpected appearance of the wildfire at the site, emergency evacuation procedures will be followed.
  4. In the event of an emergency evacuation, all employees will report to their direct supervisor before leaving the site. Supervisors will verify that all employees are accounted for, and report to site management at the main administrative office or other location. In extreme cases where all employees must leave the administrative area, site management will meet with supervisors at the front gate near San Fernando Road to ensure that all employees have safely left the site.
- If site management, in consultation with fire authorities, determines there is a credible threat of fire or extreme smoke impacting the site during the following night or day, the above procedures will be implemented at the end of the present working day. The site will remain closed on the following day unless site management, in consultation with fire authorities, determines the threat of impact by the fire has been reduced to an acceptable level.

Structure Fires:

In the event of a structure fire, the building and any adjacent structures will immediately be evacuated and the Fire Department called, in conformance with the site's Emergency Response Contingency Plan (Appendix F). On-site personnel

efforts will be limited to use of fire extinguishers for small incidents; otherwise structural fires will be managed solely by Fire Department equipment and personnel. Illuminated exit signs and diagrams showing evacuation routes are posted in buildings.

B.7.1.2 LEACHATE (27 CCR, SECTION 21600(b)(8)(C))

Leachate is generated when water passing through the refuse reacts chemically and biologically with refuse contents. Potential sources of water for leachate formation at SCL include infiltration of rainfall, surface water from surrounding areas draining into the landfill and/or water contained within the solid waste in the landfill. The composition of leachate is highly dependent upon the wastes contained in the landfill and varies significantly within a landfill over time. The leachate management system for SCL is intended to prevent or minimize leachate generation, contain and collect generated leachate, and reclaim or dispose of wastewater collected in the leachate control system. The expansion areas will have a LCRS installed similar to that in the existing lined areas of the landfill.

B.7.1.2.1 LEACHATE HANDLING SYSTEMS

SCL City

The LCRS consists of a 12-in. (300-mm) thick granular drainage layer, with a hydraulic conductivity of at least 1 cm/s, in the floor area and a geocomposite layer on side-slopes, and perforated HDPE collection pipes placed over the composite liner. The LCRS is designed to collect and convey the leachate toward leachate sumps where it is pumped through solid HDPE leachate transmission pipelines to storage tanks located at the leachate treatment facility. The LCRS is sloped toward the sumps to promote positive drainage and prevent ponding. The LCRS is designed and engineered to withstand the potential effects of seismic events without leakage. The flow capacity of the pipeline exceeds anticipated leachate flow rates. As required by Title 27, the SCL City LCRS is tested annually.

SCL County Phases I-III Liner Systems

The LCRS constructed for Phases I, II, II-C, III-A and III-B was constructed using the following approved components:

On the base or floor on top of liner (listed from bottom to top):

- 1 ft. of granular drainage media (gravel)
- 10-ounce per square yard filter geotextile

On side slopes on top of liner (listed from bottom to top):

- Geonet synthetic drainage media
- 10-ounce per square yard filter geotextile

SCL County Phase IV Liner and Leachate Collection Systems

The LCRS in Phase IV contain the following components:

On the base or floor on top of liner (listed from bottom to top):

- 16-ounce per square yard non-woven geotextile
- 1 ft. of granular drainage media (gravel)
- 16-ounce per square yard filter geotextile

On side slopes:

- 16-ounce per square yard geotextile

Figure 15 shows the existing and proposed future leachate collection pipes and sumps. Perforated HDPE pipes are placed in gravel-filled trenches above the liner in each phase and connected to provide flow of leachate to a single sump

located in the eastern corner of SCL County. As required by Title 27, the SCL County LCRS is tested annually.

B.7.1.2.2 LEACHATE VOLUMES

For calendar year 2006, the site managed a total of 2.6 million gallons of leachate from a lined area of approximately 150 acres in the SCL City and County. This is equivalent to approximately 6.4 cubic feet per acre per day of leachate. The peak period, April 2006, generated a total of approximately 790,000 gallons, equivalent to 24 cubic feet per day per acre. See Section C.3 for information on future leachate generation from the combined SCL.

B.7.1.2.3 PREVENTION OF PUBLIC CONTACT WITH LEACHATE

BFI prevents potential exposure of employees or the public to leachate by regular inspections and maintenance of the leachate management system and landfill slopes where leachate seeps may potentially occur. Reintroduction of leachate is done in a manner that prevents public contact with leachate, and maintains a minimum 75 feet of separation between leachate reintroduction areas and landfill exterior sideslopes.

In the event a leachate seep is discovered on a landfill sideslope or elsewhere on the site, it is immediately repaired by excavation of refuse if necessary, and placement of clean compacted soil over the affected area. The LEA is notified of any such incident, and the RWQCB is notified in the event a leachate seep causes contamination of surface water discharged from the site.

B.7.1.3 DUST CONTROL (27 CCR, SECTION 21600(b)(8)(D))

The site experiences high wind periods, particularly during Santa Ana conditions, that result in a potential for fugitive dust generation from landfilling operations. For compliance with South Coast Air Quality Management District (SCAQMD) Rule 403, a dust control plan was detailed in two separate documents approved by the District. The dust control plan covers mitigation procedures during normal operations and for high wind periods. It also complies with District Rule

402, which mandates that landfill activities not cause a nuisance to the surrounding community.

SCL utilizes the most effective available techniques and methods to avert fugitive dust emissions that may be a nuisance or hazard in adjacent areas. The dust abatement program will include those items listed in Condition 21 of the City MMRP, Condition 45 of the County CUP as well as the re-vegetation measures included in Condition 44D of the County CUP.

The dust abatement program will include the following elements:

1. The final fill slopes will be concurrently reclaimed and revegetated in lifts as detailed in Condition 16 of the Conditional Use and Oak Tree Permit (86-312-(5)).
2. A temporary vegetation cover will be established on all slopes and other areas that are to remain inactive for a period longer than 180 days.
3. Excavations and other activities that may result in significant emissions of fugitive dust, which cannot be confined to areas under the landfill's control, will not be conducted during high wind conditions (or when such conditions may be reasonably expected).
4. Working faces will be kept to small contained areas of two to three acres, and if practical during high wind periods, will be confined to areas with minimal wind exposure. Other operation areas (i.e., liner preparation, cover soil stockpiles, etc.) will be contained to sites less than five acres.
5. Daily soil cover will be moistened with water, except on rainy days. A soil sealant can also be used as necessary to supplement water for fugitive dust control, soil erosion and to enhance revegetation.
6. The landfill will apply soil sealant to any previously active dirt area (which has not already been sealed or revegetated) before each day when the landfill will be closed to waste acceptance.
7. Inactive areas of exposed dirt will be regularly monitored to determine the need for additional soil sealant.
8. All access roads to permanent facilities, excepting those infrequently used, shall be paved.
9. The paved access road to the fill areas will be extended as new areas are opened to minimize the length of dirt road.. The roads shall be surfaced with recycled asphalt, aggregate materials or soil stabilization products to minimize length of untreated dirt.

10. All paved roads in regular used will be regularly cleansed to remove dirt left by trucks.

11. All dirt roads in regular use will be watered at least daily on operating days and more often as needed, except on rainy days.

12. Loads capable of producing significant dust shall be watered during the dumping process, if such a practice is deemed acceptable to the Regional Water Quality Control Board.

13. The landfill will maintain water tanks and piping capable of supplying by gravity at least one day's maximum water usage to the fill areas for dust control.

14. The landfill will install and maintain devices to monitor wind speed and direction (as specified by the South Coast Air Quality Management District) and utilize the information on predicted wind conditions to assist in the planning of operations at the landfill.

15. Landfill equipment and operators will be available (if necessary) on non-operating days for soil treatment and dust control.

16. A hydro-mulch blanket may be used to cover slopes for dust control and soil erosion purposes.

17. A 20-foot maximum cell height (which includes daily cover) will be utilized; this height will minimize the disturbances to the landfill site (longer period of operation on each cell provides for effective control of any fugitive dust).

18. Areas that are left inactive for 90 days or more will be treated with soil sealant and those areas monitored for continued compliance or treatment, as necessary.

19. As needed, rental equipment will be used to supplement site equipment.

B.7.1.4 VECTORS (27 CCR, SECTION 21600(b)(8)(E))

The following bird deterrent techniques have been implemented at Sunshine Canyon Landfill:

- Reducing availability of food supply: Minimizing the work area, and the compaction and daily cover of refuse reduces the availability of food to birds, and reduces the landfill's attraction of birds.
- Eliminating sources of water and nesting: Drainage controls which prevent ponding of water effectively eliminate potential water sources for birds.
- Noise-making bird guns: Blank-firing guns and other noise making devices are used by landfill personnel to intimidate birds and minimize their desire to land at the landfill.

- Use of falcons or other predator birds that deter birds from the landfill.
- Alternative methods as approved by the LEA.

The following landfill maintenance activities are implemented to discourage rodent and insect propagation and habitation:

- Compaction and daily cover of refuse with soil to eliminate rodent habitat and food.
- Covering wastes with compacted soil or an approved alternative, and minimizing the work area over which refuse is spread to prevent the emergence of flies from eggs present in household wastes.
- Monthly service by a rodent control contractor.
- Salvaged materials generated onsite or imported will be placed away from storage areas, other activity areas, and limited to a volume approved by the LEA, local land use authority, or other approval agencies, minimizing the harborage or attraction of flies, rodents, or other vectors. No scavenging will be allowed.
- Flies will be controlled at the site by a trap-and-destroy program. The use of sprays will be avoided to the fullest extent possible.
- Insect breeding such as mosquitoes will be minimized by preventing surface water ponding.

B.7.1.5 DRAINAGE AND EROSION (27 CCR, SECTION 21600(b)(8)(F))

The primary function of the surface water drainage and erosion control system is to minimize erosion, convey surface waters around the refuse cells and off the landfill in order to minimize potential infiltration of surface water into the refuse prism. The surface water drainage control system for SCL is designed to accommodate a 50-year, 96-hour storm event. The drainage system is comprised of drainage ditches and channels, various down-drain structures and desilting basins.

SCL County

Figure 17 shows the major existing stormwater management structures and features at Sunshine Canyon Landfill. On the County side, they consist of the following:

- Sedimentation Basin "D" located at the extreme northwest corner of the landfill, which currently receives and detains runoff from the undeveloped canyon areas north and west of the landfill. It has two outlets, one to the west and one to the east.
- The west perimeter maintenance corridor (PMC), a large concrete-lined trapezoidal drainage channel receiving runoff from the west side of the landfill and cut slopes to the west. It runs from the west outlet of Basin "D" to Basin "A" (described below).
- Sedimentation Basin "A" is located at the extreme west side of Phase III-B. It receives water from the west PMC and from the canyon immediately west of Phase III-B. It discharges to a 66-inch corrugated metal pipe (CMP) buried under the Phase III-B access road and soil stockpile, that in turn connects to a buried 78-inch CMP leading to the primary County sedimentation basin.
- The east perimeter channel, consisting of connecting segments of concrete channels, earthen channels, and pipes collecting runoff from canyons and cut slopes north and east of the landfill as well as drainage from easterly portions of the landfill. It begins at the east discharge of Basin "D" and terminates in pipes discharging to the existing primary sedimentation basin.
- Existing primary sedimentation basin, currently the collection point for all runoff from the SCL County and tributary canyons outside the landfill footprint. This basin also receives seep water collected in the subdrain system constructed below composite liners in the landfill. It discharges to a drainage system comprised of temporary and permanent channels and culverts which also receives runoff from the SCL City and conveys it under the SCL City access road to the terminal basin located near the site entrance. The terminal basin discharges through a concrete box channel underneath San Fernando Road into the Weldon Canyon Flood Control Channel, which is part of the City of Los Angeles flood control system.

SCL City

V-Ditches

Lined and unlined drainage diversion ditches (V-ditches) installed along the benches intercept surface runoff from native and developed landfill slopes. Diversion ditches will convey surface water runoff from native and landfilled areas to designated low points along each bench where pipe downchute inlet structures are located. Drainage is directed from the downchutes to the perimeter channels for conveyance around the SCL City footprint to the terminal retention basin located adjacent to the main entrance of the landfill. V-ditches may be unlined or lined with erosion control fabric or concrete.

Downchutes

Downchutes convey collected surface waters from V-ditches installed along the benches down slope to perimeter surface water conveyance channels for routing to the terminal retention basin. Downchutes are located at designated low points along each bench. Downchutes are typically composed of corrugated steel pipe (CSP) or corrugated HDPE materials.

Conveyance channels will be sized to provide adequate hydraulic capacity to accommodate peak flow resulting from the 50-year, 96-hour burned and bulked design storm event.

Terminal Retention Basin

One primary retention (i.e., sedimentation/detention) basin has been developed within SCL City. This basin is designed to control both sediment loads, transported downstream by surface runoff, and to control peak discharge corresponding to the 50-year 96-hour burned and bulked design storm event.

The terminal retention basin has been designed to accommodate 10.5 acre-ft of sediment from the City portion of the Sunshine Canyon Landfill watershed. (The calculations assumed that sediment-free water discharges from the County sedimentation basin.) Basin sizing is based on calculations of debris storage

volume and surface water runoff storage volume and provides peak flow attenuation to pre-project condition outflows. Proposed drainage for the landfill expansion is discussed in Section C.3.8.

The onsite drainage control facilities should be free of debris and operational at all times. In order to provide the desired protection against flooding and erosion damage, routine inspections/maintenance of the drainage control system are conducted on a regular basis and prior to the rainy season.

B.7.1.6 LITTER (27 CCR, SECTION 21600(b)(8)(G))

SCL will use the most effective available techniques and methods to prevent litter from escaping the area. Daily litter collection is conducted both on and off-site in close proximity to the landfill. SCL may shut down operations during high wind conditions if, despite the application of the most effective available techniques and methods, litter cannot be confined to the site boundary.

The litter control program includes the following elements:

- Landfill personnel patrol the access road to the Scalehouse during operating hours.
- All loads are required to be covered, and improperly covered or contained loads, which may release litter, will be immediately detained and corrected before the load proceeds to the working face. If necessary, the load will be escorted to the working face.
- Maintenance of the active working face areas as small as possible (the City of Los Angeles [1999] requires that the working face area is smaller than 5 acres (2 ha)), given the type and quantity of landfill equipment.
- All litter found on or along the entrance and working face access roads will be immediately removed, if practical, or measures taken to remove said litter as soon as practical.
- To the extent practical, operating areas for waste disposal will be located in a wind-shielded area during windy periods.
- Litter fences will be installed in the operating areas.
- A neighborhood survey plan has been implemented to monitor surrounding areas for litter.
- Temporary personnel will be used, as necessary, to assist in litter control.

SCL requires all incoming refuse loads to be transported in closed vehicles or covered by a secure cover that prevents litter from escaping during transport.

The following notice is posted at the site entrance:

TARPS ARE REQUIRED

The State of California Vehicle Code (Section 23115) requires all vehicles hauling refuse or recyclables to be covered to prevent spillage from the vehicle.

Customers who repeatedly violate the policy requiring tarps or equivalent covers are barred from further use of the landfill.

Portable primary litter fencing (backstops, plastic and/or chain link) will be installed adjacent to the operating area to capture materials blowing off the working face. Manual labor and/or the use of vacuum truck(s) will be used to remove litter from the litter fences as soon as practical in order to maintain their effectiveness during windy periods. The use of portable secondary litter fences will be utilized as deemed necessary by the LEA and SCL to control litter in other areas of the landfill. The secondary litter fence will be considered if their effectiveness can be demonstrated during windy periods, especially at significant distances from the active working face where the litter is generated. As required, the existing perimeter fence will be retained to capture litter before it leaves the site.

Landfill employees will watch for any illegal dumping activities on or around the project site. The landfill litter control crew will provide cleanup service for areas within one-mile of the project site.

In accordance with current practice, SCL will mobilize cleanup crews on a weekly basis (or more frequently if needed) to provide litter control pick-up service in O'Melveny Park, along Balboa Boulevard, San Fernando Road and Old Sepulveda Road and in other areas in close proximity to the landfill. On a daily basis, a SCL employee inspects the surrounding area to assess whether a more

frequent clean up is required. This program is provided to clean up any stray litter which may have dropped in the surrounding area, whether or not its source is related to landfill operations. The landfill is equipped with radio communications that will mobilize crews on a daily basis to respond to litter complaints and other complaints from the surrounding neighborhoods.

B.7.1.7 NOISE (27 CCR, SECTION 21600(b)(8)(H))

Pursuant to 27 CCR 20840, equipment noise is controlled by maintaining manufacturer-specified mufflers on site equipment. Hand-unloading users are protected from noise hazards by stationing them away from areas with operating equipment

B.7.1.8 ODOR CONTROL

The landfill is located in an area surrounded by an open space which provides a natural buffer to protect the public from landfill odors. On-site odor control measures address the principal potential sources of landfill odors, including uncovered waste, landfill gas and landfill liquids (leachate and condensate).

Odors from uncovered waste are prevented by:

- compacting waste within one hour of its arrival at the working face;
- placing daily and intermediate cover material over compacted waste;
- limiting the size of the working face so that the area of waste exposed to the atmosphere is minimized; and
- implementing special handling procedures for any unusually odorous waste loads (i.e. immediate burial).

Odorous landfill gas (LFG) emissions are monitored and controlled by activities of programs implemented pursuant to SCAQMD regulations. These measures include:

- extracting and destroying LFG using the LFG collection and recovery system;
- maintaining soil cover to prevent surface cracks or fissures that could allow LFG to be emitted to the atmosphere;

- implementing the LFG monitoring program.

If a gas-related odor problem should be identified at the site, additional control measures will be developed and implemented, such as applying additional cover or more frequent cover material, increased cover maintenance, or making improvements or adjustments to the landfill gas collection system.

Odors from landfill liquids are prevented by keeping leachate and condensate from being exposed to the atmosphere. They are kept in enclosed pipes and tanks while being extracted, treated and disposed.

B.7.2 GAS MANAGEMENT PLAN (27 CCR, SECTION 21600(b)(4)(E))

Landfills which receive organic wastes in some significant quantity eventually produce landfill gas. The decomposition of organic wastes within the refuse prism generates landfill gas as a by-product. This landfill gas generally consists of equal amounts of methane and carbon dioxide along with traces of other constituents. The production of landfill gas within the refuse cell is of interest primarily due to the explosivity of methane in concentrations between 5 and 15 percent by volume in air. Landfill gas controls are implemented to prevent surface emissions in excess of State and Federal regulations. State and Federal regulations also require the control of landfill gas to prevent it from migrating into onsite structures and beyond the landfill boundaries and accumulating in offsite structures.

Section C.3.7 discusses the proposed gas control and monitoring system modifications for the City/County Landfill expansion. As of September 20, 2007 new regulations for Gas Monitoring and Control at Active and Closed Disposal Sites became effective. For disposal sites which receive greater than 20 tons of waste per day compliance is required within one year from the effective date. BFI acknowledges the new gas monitoring and control regulations which recently became effective. In accordance with the regulations, BFI has one year from the effective date of the new regulations to come into compliance. BFI anticipates a future submittal which will amend this JTD to include any necessary changes to the gas management plan in response to the new regulations.

B.7.2.1 LANDFILL GAS COLLECTION SYSTEM

SCL County

Figure 18 shows the system of collection wells used to extract landfill gas and deliver it to the gas treatment system. The facility operates under a SCAQMD permit to construct and operate a network of vertical wells and horizontal collectors as required. Permit applications will be prepared and submitted to the SCAQMD to increase the number of wells needed to manage landfill gas as additional landfill area is developed.

Vertical gas extraction wells are generally constructed using 6-inch diameter perforated PVC or HDPE pipe installed in a 24 to 36-inch diameter borehole filled with gravel and sealed using bentonite chips or other surface seals and HDPE pipe boots. Figure 19 is a typical extraction well construction detail.

Horizontal collectors at SCL County have typically consisted of perforated HDPE pipe placed near the perimeter of the landfill adjacent to the geonet drainage layer installed as part of the side slope liner system. These collectors have been shown to effectively collect gas migrating through the geonet. Similarly, gas extraction lines have been connected to leachate collection pipes in some disposal cells to collect gas migrating into the LCRS drainage media on the cell floor. In the future, horizontal collectors consisting of alternating lengths of different diameter corrugated metal pipes, or of perforated corrugated metal or HDPE pipes, may be installed in areas of the landfill and connected to the collection system. Vertical wells and horizontal collectors will be added and maintained as needed to comply with SCAQMD rules for surface emissions from landfills and to prevent lateral migration of landfill gas in accordance with SCAQMD rules and CCR Title 27.

The network of extraction wells and collectors is connected by a system of HDPE pipe headers to a loop transmission line that allows gas from any part of the landfill to be delivered to either of the two flare stations on the SCL County.

SCL City

A comparable network of extraction wells and collectors is installed in the inactive Unit 1 City Landfill. A twelve-inch pipeline connects the City and County collection systems, allowing gas from the City system to be delivered to the County flare stations as well as to the dedicated SCL City flare station (Flare Station No. 1).

The existing SCL City landfill gas collection system consists of six (6) vertical wells and one layer of horizontals on top of the operations layer connected to the existing gas extraction and flare system described in Section B.7.2.2.

B.7.2.2 FLARE STATION

SCL City

The existing flare station, located within the City of Los Angeles portion of the Sunshine Canyon Landfill (Flare Station #1, Figure 8), is enclosed in a well-secured, fenced area of approximately 0.5 acre. The existing flare system is a McGill flare capable of processing approximately 4,160 standard ft^3/min (scfm) of landfill gas (LFG). The flare is equipped with a process skid that includes two Lampson blowers, liquid knock-outs and associated control. The Flare Station #1 system includes a cylindrical-shaped, insulated metal flare shroud, approximately 13 feet in diameter and 50 feet in height. The gas flaring system contains automatic shutdown and alarm systems and automatic combustion, air-regulating, and temperature controllers. When the flare is in operation, a typical temperature of 1,600 degrees Fahrenheit is maintained in the flare stack. The flare stack is designed to contain the flame internally within the cylindrical stack. Future flare systems are expected to be similar to existing systems. Emissions from the combustion process will be released into the atmosphere in compliance with SCAQMD regulations. Ports are provided in the flare to allow for the sampling of raw gas and incinerated emissions to source test the flare, evaluate its performance, fine-tune the flare system, and maintain compliance to SCAQMD regulations. Each flare station will undergo an annual source-testing program conducted in accordance with SCAQMD source test procedures.

LFG entering the flare will be analyzed in accordance with SCAQMD operating permits. The testing results will be recorded and provided to SCAQMD upon request. If a breakdown or malfunction of the LFG flare system results in the emission of raw gas, BFI is required to report the occurrence in accordance with Rule 1150.1 [SCAQMD, 1998] within one (1) hour to SCAQMD's Director of Enforcement. Remedial measures are required to be undertaken immediately to correct the problem. Flare station safeguards include an automatic alarm and notification system, automatic blower, and an LFG collection system automatic shutoff valve system. The alarms provide indication of a flare flame out, low flare stack temperature, high flare stack temperature, excessive vibration, or low blower discharge pressure and generally notify landfill personnel via auto dialer systems.

SCL County

Landfill gas from the SCL County is incinerated in two flare stations, designated Flare Station No. 3 and Flare Station No. 8. Flare Station No. 3 is located on a ridge west of the landfill, and Flare Station No. 8 is located on the ridge north of the landfill. Each flare station has a capacity to treat up to 4,167 standard cubic feet per minute (scfm) of landfill gas. They are operated in accordance with permits to operate issued by the SCAQMD, including a requirement for annual emissions and performance testing. Flare stations are equipped with emergency notification systems capable of alerting gas system management personnel immediately in the event of an operational upset.

The systems described above will be expanded as the landfill is developed to provide ongoing control within the performance criteria established and mandated by the SCAQMD and State and Federal regulations as further discussed in Section C.3.7.

B.7.2.3 PERIMETER GAS MIGRATION MONITORING SYSTEM

SCL City

The perimeter probe gas monitoring points for SCL City consist of a series of 20-multi-depth perimeter gas monitoring probes installed around the final

footprint of the landfill (i.e., P-213 through P-231) to meet the regulatory requirements contained in Sections 20923 and 20925 of Title 27 of the CCR and MMRP Condition No. 34(a)[4] [Los Angeles City, 1999]. The multi-depth gas monitoring probes are installed around the SCL City property boundary at the locations shown on Figure 20.

SCL County

A network of gas monitoring wells has been installed around the perimeter of the SCL County waste footprint in conformance with requirements of the Rule 1150.1 Compliance Plan approved by the South Coast Air Quality Management District (SCAQMD). The network consists of 12 multi-depth probes (i.e., P-201 through P-212), each of which allows sampling from three different depths. Existing gas probes are shown on Figure 20.

Temporary gas probes are installed as needed to monitor special situations, such as when soil stockpiles or soil buttresses are placed above the limits of previously landfilled waste, such that landfill gas could migrate through the stockpiled soil beyond the waste perimeter. The LEA will be notified in advance of placing temporary probes under these conditions, and monitoring results will be included in routine monitoring reports. Temporary probes will be abandoned when authorized by the LEA. Appendix I contains the current temporary gas probe monitoring plan.

The network will be modified as the perimeter of the landfill is expanded under the proposed consolidation of the two landfills. Approximate locations of probes at ultimate build-out including future additional probes and abandonment of existing probes in development areas are shown on Figure 20.

Monitoring Parameters

[4] Mitigation Measure No. 34(a) states that "*One monitoring probe per 1,000 or as identified by South Coast Air Quality Management District and/or Local Enforcement Agency in the landfill expansion and one probe per 650 feet or as identified by South Coast Air Quality Management District and/or Local Enforcement Agency in the City Inactive landfill along the landfill perimeter, or which ever is more restrictive, shall be installed to identify potential areas of subsurface landfill gas ("LFG") migration...*"

The field monitoring parameters for the perimeter gas monitoring points consist of Total Organic Compounds (TOCs) measured in the field as methane. The laboratory monitoring parameters consist of methane, non-methane hydrocarbons, and the core group compounds listed in SCAQMD Rule 1150.1.

Sampling Methodology and Frequency

Field measurements of concentrations of TOCs as methane, at each gas monitoring point are conducted using an approved portable gas monitoring instrument, such as a Flame Ionization Detector (FID) or a Combustible Gas Indicator (CGI), or equivalent monitoring equipment. Probe testing is performed using procedures described in the SCAQMD Rule 1150.1 guidelines. Field measurements are conducted on a monthly basis.

In addition, gas samples are collected and analyzed in a laboratory on a quarterly basis. The quarterly samples are selected based on the corresponding monthly field screening measurements obtained with the FID or CGI. Gas samples are collected from the perimeter gas monitoring points exhibiting field TOCs concentrations greater than 5% (by volume). If no perimeter probe monitoring points have a TOCs concentration greater than 5% (by volume), the gas monitoring point with the highest reported field TOCs concentration is selected for sampling. The gas samples collected each quarter are analyzed for the monitoring parameters described above.

Data Analysis and Response

Should the field TOCs and laboratory methane concentrations in gas samples collected from a monitoring point exceed 5% (by volume), BFI will adjust and/or enhance the LFG system to control landfill gas and increase recovery, as needed. The system will be adjusted and/or enhanced until follow-up field monitoring indicates that the exceedance at the monitoring point of concern has been reduced to acceptable levels.

As required by Section 20919.5(c) of Title 27 of the CCR, if the concentration of methane gas exceeds the lower explosive limit (LEL) for methane at the facility property boundary (i.e., in the perimeter probes), BFI will:

- immediately take all necessary steps to ensure protection of human health and notify the LEA;
- within 7 days of detection, place in the operating record the methane gas levels detected and a description of the steps taken to protect human health; and
- within 60 days of detection, implement a remediation plan for the methane gas releases, place a copy of the plan in the operating record, and notify the LEA that the plan has been implemented. The plan will describe the nature and extent of the problem and the proposed remedy.

Reporting

Depending on the requirements of the specific regulatory agencies, the perimeter probe gas monitoring results will be submitted to the SCAQMD and the LEA in accordance with the reporting frequency presented in Table 17.

B.7.2.4 ADDITIONAL MONITORING

This section describes activities implemented by BFI to meet the landfill gas migration requirements of Title 27 of the CCR and South Coast Air Quality Management District (SCAQMD) relative to surface emissions of landfill gas. It consists of two basic types of monitoring: subsurface gas migration monitoring using perimeter gas probes as discussed above and surface emissions monitoring. Structure monitoring is also discussed in this section.

Surface Emissions Monitoring

SCAQMD Rule 1150.1 requires that gaseous organic compounds escaping at any point on the refuse fill surface be less than 500 parts per million by volume (ppmv). Landfill surface emissions are monitored monthly using a flame ionization detector. Gas extraction wells, drainage structures, and other structures are also monitored for leaks. If total organic carbon (TOC) readings of greater than 500 ppm are found at any point on the landfill, mitigation measures, such as adjusting the LFG collection system or maintaining the soil cover system, are taken and the area is re-tested to verify that emissions are below 500 ppm.

Structures Monitoring

Pursuant to 27 CCR 20919.5, BFI monitors on-site structures for explosive gases, to prevent concentrations of methane from exceeding 25 percent of the lower explosive limit in any structure. Continuous gas monitors with alarms are installed in the administration building, the leachate plant control building and the employee services building. To date, no significant methane concentrations have been detected. In the event an exceedance of the maximum permissible level occurs, the affected structure will be evacuated of personnel until additional ventilation has restored levels below 25 percent of the explosive limit. Studies will be undertaken to identify the cause of the incident and determine what remedial measures should be taken to prevent its recurrence. The remedial plan will implemented and placed in the site's operating record within 60 days, and the LEA will be notified as provided in 27 CCR 20919.5(c).

B.7.2.5 GAS CONDENSATE COLLECTION SYSTEM

LFG condensate is removed by gravity from the header system, through a series of condensate collection sumps and pipes placed at low points, and conveyed to condensate sumps or holding tanks, where pumps convey the LFG condensate to condensate storage tanks. The condensate pump stations are designed to allow the collected condensate to be removed from the LFG collection system while maintaining adequate vacuum within the LFG collection headers. LFG condensate that drains to the LCRS sumps is pumped out of the landfill and treated at the leachate treatment facility. In accordance with RWQCB Order No. R4-2007-0023 for the County Extension portion of the SCL, collected condensate from the County Extension portion of the SCL may be discharged into the landfill mass in areas that are equipped with a double composite liner system (see Appendix D). Alternatively, if approved by appropriate regulatory agencies, LFG condensate could be discharged to the sewage system or could be injected into the flare system for evaporation. The total amount of condensate conveyed to the treatment system is recorded daily into a log book.

A typical condensate sump is shown as Figure 21. As the gas collection system is expanded, exact locations and construction details of additional condensate

sumps will be included on construction-level LFG extraction system design plans to be submitted to the applicable regulatory agencies for review and approval.

B.7.2.6 ENERGY RECOVERY

BFI has explored the potential for energy recovery from landfill gas at Sunshine Canyon Landfill. To date an economically viable program has not been identified. During 2004-05 a tentative agreement with a third party was reached for off-site industrial use of landfill gas, and studies were initiated related to pipeline right-of-way and permit issues. BFI will continue to pursue this and other potential beneficial uses of landfill gas.

B.7.3 GROUNDWATER MONITORING

The current water quality monitoring program for the SCL was developed to comply with 27 CCR, Article 1, requirements as implemented through site-specific WDR, Order No. R4-2003-0155 for the SCL City and WDR Order No. R4-2007-0023 for the SCL County, issued by the Los Angeles RWQCB. The existing and future water quality monitoring system has been and will be designed and certified by a registered geologist or registered civil engineer in accordance with 27 CCR, Section 20415(e)(1).

Specifically, the water quality protection standards include: establishment of monitoring systems for groundwater, surface water and the unsaturated or vadose zone, including background and compliance monitoring points for each medium; constituents of concern; monitoring parameters; and a monitoring protocol and compliance period.

The overall objectives of the water quality monitoring system for SCL are to:

- Characterize background groundwater quality.
- Detect changes in water quality that may result from changes in groundwater recharge or possible landfill leakage or landfill gas impacts.
- Monitor groundwater elevations and gradients to determine groundwater flow directions and velocities around the SCL.

- Monitor the effectiveness of the implemented Corrective Action Program (CAP) and make recommendations for subsequent changes and/or improvements.

The groundwater monitoring points discussed in the following sections were established for the two site-specific WDRs (SCL City and SCL County) in compliance with 27 CCR, Article 1, and reflect the following: the results of hydrogeologic investigations and previous/present groundwater monitoring; existing site conditions; the Detection Monitoring Programs (DMP) and CAP; and the RWQCB and CIWMB requirements regarding subsurface vadose zone monitoring. It is anticipated that a single unified Monitoring and Reporting Program (M&RP) will be developed for the consolidated city/county landfill and incorporated into new WDRs issued by the RWQCB. The new M&RP will include a comprehensive water quality monitoring network that will eliminate any duplication or overlap between the two current systems as the site is developed.

B.7.3.1 GROUNDWATER MONITORING SYSTEMS

SCL City

As shown on Figure 22, the groundwater monitoring network for the City Landfill Unit 1 and SCL City consists of the following wells: MW-1, MW-2A, MW-2B, MW-5, MW-6, MW-9, MW-13R, MW14, DW-1, DW-2, DW-3, and DW-4. Compliance groundwater monitoring is also currently conducted a the SCL City groundwater extraction trench. These 13 monitoring points (12 wells and 1 trench monitoring point) represent the current groundwater monitoring network for the SCL City pursuant to RWQCB Order No. R4-2003-0155 and RWQCB Monitoring and Reporting Program (M&RP) No. CI-2043. There are currently no upgradient groundwater monitoring wells at the SCL City. This system differs from that previously presented in the 2003 JTD for the SCL City. Changes to the groundwater monitoring system have been made gradually over time as the landfill has been developed. These changes have been documented through correspondence between the RWQCB and BFI as well as through annual monitoring reports submitted to the RWQCB. BFI will continue to modify the facility's groundwater monitoring network as necessary to reflect any future

changes required by the RWQCB or to Order No. R4-2003-0155 and M&RP CI-2043.

SCL County

The current groundwater monitoring well network for the SCL County includes six groundwater wells (see Table 7). Monitoring Wells CM-9-R3, CM-10, and CM-11R are located upgradient of the SCL County within the Northwest, North, and Southwest Canyons, respectively. They serve as the current background monitoring points for the facility. Monitoring Wells CM-15, CM-16, and CM-17 are located downgradient of the SCL County and represent the current POC wells for the facility. During 2005, construction activities associated with Cell A of SCL City were initiated in the area just south of the SCL County primary sedimentation basin. As a result of these construction activities, the facility's then current POC groundwater monitoring wells MW-11 and CM-14 required decommissioning and replacement. Monitoring Wells CM-15, CM-16, and CM-17 were then installed as replacements for former POC wells MW-11 and CM-14.

POC monitoring wells CM-15, CM-16, and CM-17 have been installed as temporary POC monitoring points. Once construction activities commence in that area, these wells will be decommissioned and subsequently replaced per the new well system to be developed as part of the new M&RP to be issued by the RWQCB for the combined City/County landfill. It is anticipated that subsequent monitoring for the SCL County will be conducted along the new POC established for the combined City/County Landfill.

B.7.3.2 VADOSE ZONE MONITORING SYSTEM

SCL City

The vadose zone monitoring points for SCL City consist of:

- A series of 20 multi-depth (three-depth) perimeter vadose zone gas monitoring probes installed around the final footprint of the landfill (i.e., P-213 through P-231);

- the termination points of the subdrain system installed below the elevation of the bottom of the waste and below the containment system to monitor the vadose zone below the landfill; and
- the leak detection systems (LDS) between two liner systems in both leachate sumps (i.e., Cells A and C).

The locations of the 20 multi-depth vadose zone monitoring points are shown on Figure 20.

In addition to the multiple-depth vadose zone gas monitoring probes described above, additional monitoring of the vadose zone is performed using the termination points of the subdrain system. The final subdrain system alignment will be determined in the field based on the presence of observed springs and seeps encountered during construction.

Lysimeter liquid monitoring is conducted via lysimeter LY-7 provides monitoring of conditions between the primary and secondary liners of the SCL City Unit II, Cell A leachate sump. Lysimeter LY-7 is accessed from the east side of Cell A through a 360-foot long inclined riser pipe. The location of lysimeter LY-7 is shown on Figure 22.

BFI also monitors the presence of liquid in the LDSs on a quarterly basis.

SCL County

The current vadose zone monitoring program for the SCL County includes subdrain liquid-quality monitoring, lysimeter liquid monitoring, and landfill gas monitoring. BFI routinely monitors the quality of subdrain liquids beneath the SCL County. Subdrain liquids originate from springs and seeps in the canyon bottoms and walls that are exposed during landfill construction. These liquids are considered representative of conditions in the unsaturated zone[1] beneath the landfill liner and provide a method of liquid recovery-type unsaturated zone monitoring as required under 27 CCR, Section 20415(d)(4).

[1] 27 CCR, Section 20164, defines the unsaturated zone as "*the zone between the ground surface and the regional water table or, in cases where the uppermost aquifer is confined, the zone between the ground surface and the top of the saturated portion of the aquifer's confining layer.*"

Fourteen subdrains have been constructed to date at the SCL County (see Figure 22). Subdrains A, B, and C underlie the existing waste footprint of Phases I, II, and III. Subdrains E, F, J, K, L, Q and R underlie the Phase IV disposal area. Subdrains E and F underly portions of the proposed Phase V disposal area. Subdrain D is located beneath the downgradient side of the SCL County grout curtain, south of Phase I. Subdrain D, located beneath an area of the facility which has not yet been used for waste disposal, and subdrain N, located at the northern end of the SCL City sedimentation basin, are not part of the subdrain liquid monitoring program. There are eleven subdrain monitoring points including A, B, C, D, E, F, J, KL, N, Q and R.

Lysimeter liquid monitoring is conducted on a quarterly basis as part of the vadose zone monitoring program for the SCL County. During each quarterly monitoring event, one lysimeter (designated as LY-6) is initially monitored for the presence or absence of accumulated liquids. If sufficient liquids are present, a sample is collected and analyzed, as feasible, for each of the COC listed in Table 8. Lysimeter LY-6 provides monitoring of unsaturated zone conditions beneath the Phase IV leachate sump and is accessed from the east side of the Phase IV disposal area through a 252-foot long inclined riser pipe. The location of lysimeter LY-6 is shown in Figure 22.

WDR Order No. R4-2007-0023 requires that BFI conduct landfill gas monitoring at the SCL County as part of the facility's ongoing vadose zone monitoring program. Gas migration monitoring for the SCL County is currently conducted at 12 permanent gas migration monitoring probes. Each probe is constructed to allow monitoring at three discrete depths. The locations of the existing perimeter gas monitoring probes are shown in Figure 20.

Vadose zone gas monitoring is also conducted, when feasible, at five subdrain outfalls located at the SCL County primary sedimentation basin (Subdrain Termination Points P-203D, P-204D, P-207D, P-208D, P-211D, and P-212D). The locations of these vadose zone gas monitoring points are shown in Figure 22.

B.7.3.3 CORRECTIVE ACTION PROGRAM FOR UNSATURATED ZONE IMPACTS

SCL County

Liquids from Subdrains A, B, C, and J have been determined to contain landfill-related VOC constituents in concentrations exceeding background groundwater concentrations. Methane and other gas constituents typical of landfill gas have also been detected at elevated levels in the SCL County subdrain system. Based on substantial testing and sampling, BFI has tentatively identified the source of VOCs in subdrain liquids as landfill gas present in the subdrain system. To date, the impacts appear to be confined primarily to liquids within the SCL County subdrain system. There is no evidence of landfill impacts to groundwater downgradient of the SCL County.

RWQCB Order No. R4-2007-0023, adopted April 5, 2007, establishes required actions for mitigating the affects of migrating landfill gases on subdrain liquids beneath the SCL County. A copy of RWQCB Order No. R4-2007-0023 is presented in Appendix D. During the 2004 and 2005 annual monitoring periods, BFI is required to conduct site activities as specified in Sections H.1 through H.4 of Order No. R4-2007-0023, to assess monitor, and reduce the effect of low level VOCs in subdrain liquids beneath the SCL County. Provision H.1 of Order No. R4-2007-0023 requires that BFI continue to collect and manage all VOC impacted subdrain liquids. Provisions H.2 and H.3 of Order No. R4-2007-0023 requires that BFI take adequate measures to prevent landfill gas from entering the subdrain system beneath the SCL County. The prevention of landfill gas in the subdrain system is a RWQCB requirement only and is not regulated by or reported to the CIWMB. Results of vadose zone monitoring and related remedial activities required at the SCL County pursuant to Order No. R4-2007-0023 are presented in the semi-annual and annual groundwater monitoring reports submitted to the RWQCB.

B.7.3.4 SURFACE WATER MONITORING

A series of subdrains were constructed below the containment system to collect water from springs and seeps encountered during development of SCL City.

These fluids are collected and either discharged to the City sewer or treated and used for dust control on-site due to contaminants migrating from the unlined City Landfill Unit 1 (Figure 22). Design of the future cells adjacent to the unlined City Landfill Unit 1 will include a collector trench or other conveyance to capture and remove liquids before they can mingle with subdrain water under the lined units (see Section C.3.3.1). The current number of subdrain monitoring points is two which corresponds to the number of outfall points. Any additional subdrain outfalls constructed as part of the City/County expansion will also be monitored.

MRP CI-2043 requires that BFI perform semi-annual monitoring of stream water quality at the SCL City. During each semi-annual monitoring event, stream water samples are collected at the four pre-established monitoring stations (i.e., S-AR, A-B, S-C and S-D) shown on Figure 22. Samples are collected and analyzed, as feasible, based on the stream water flow conditions existing at the time of the semi-annual monitoring event.

Subject to requirements of Stream Bed Alteration Agreement No. R5-2003-0005, adopted by the California Department of Fish and Game (CDF&G), BFI is required to conduct periodic monitoring of stream water quality at a diversion discharge point (CHRV-1) in the vicinity of Cell A construction area. Consistent with Stream Bed Alteration Agreement No. R5-2003-0005, the results of the stream diversion monitoring activities are submitted to the CDF&G in weekly submittals. Although not a specific requirement of MRP CI-2043, RWQCB staff have requested that the stream diversion monitoring results be tabulated and included in the facility's semi-annual monitoring reports.

B.7.3.5 LEACHATE-QUALITY MONITORING

SCL City

The SCL City leachate is monitored in accordance with the WDR issued by the RWQCB and as required by the wastewater treatment plant if leachate is to be discharged into the City of Los Angeles sewer system. Testing is performed by a laboratory, which has been certified by the California Department of Health Services.

SCL County

Section B.II.11 of MRP CI-7059 require that BFI conduct leachate-quality monitoring and related retesting for the SCL County on at least an annual basis. Annual monitoring is to be completed during October, with follow-up retesting to be conducted the following April. Annual leachate samples for the SCL County are collected from a mixture of the combined flow from Phases I through IV. Samples are collected from the existing leachate sump indicated on Figure 15. As additional phases are constructed under the consolidated landfill, samples will be collected from the new sumps and monitored in accordance with the new WDR issued by the RWQCB, which should be similar to current requirements.

B.7.3.6 MONITORING OF ONSITE WATER-USE

MRP CI-7059 for the County and MRPCI-2043 for the City requires that BFI record, on a monthly basis, the sources and volumes of waters used for dust control and irrigation at the landfill. In addition, any such waters (except potable waters) are to be monitored on a quarterly basis for pH, heavy metals, nitrate, and VOCs and must meet drinking water standard established for these constituents. The current waste discharge requirements for the SCL County (RWQCB Order R4-2007-0023) contain additional water-use concentration limits related to heavy metals, VOCs, semi-volatile organic compounds, chemical oxygen demand, and oil and grease.

B.7.3.7 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER MONITORING PROGRAM (SMP)

BFI monitors storm water discharges at Sunshine Canyon Landfill in conformance with Waste Discharge Requirements under General Permit No. CAS0000001 issued by the California State Water Resources Board pursuant to requirements of the National Pollutant Discharge Elimination System (NPDES). A Stormwater Pollution Prevention Plan (SWPPP) and Stormwater Management Plan (SMP) have been prepared for the landfill as part of the State's NPDES General Permit requirements for stormwater inspection, sampling, observations and reporting.

The monitoring program approved by the RWQCB for SCL under the Permit includes the following elements:

- Visual observations of storm water discharges and collection of storm water samples for at least two rain events during the wet weather season. Samples are analyzed for pH, total suspended solids, specific conductance, oil and grease, total organic carbon and iron. Observations and sample collection are conducted at the site's storm water monitoring point near San Fernando Road.
- Visual observations are conducted at areas of the site where potential pollution may originate or first be noticed, on a quarterly basis and monthly during the rainy season from October through April. Areas observed include the primary sedimentation basin, maintenance area, household hazardous waste storage area, hand unload recycling area, fueling area, administration area, leachate treatment plant area, and the v-ditch on the city-side landfill along the haul road into the site. Visual observations include: date; time; weather conditions; storm water discharge (yes/no); continuous discharge (yes/no); sheen or discoloration; turbidity; odors; floating material, and miscellaneous comments.
- An annual comprehensive site compliance evaluation is performed as required by the site's Storm Water Pollution Prevention Plan.
- Reports are submitted annually to the RWQCB.
- Grab samples will be collected of the storm water discharge in accordance with the General Permit. The grab sample will be analyzed for the constituents identified in the NPDES General Permit issued by the RWQCB.

B.7.3.8 REPORTING

BFI conducts compliance monitoring and submits associated reports in accordance with WDRs for the SCL. BFI also submits semi-annual CAP and DMP monitoring reports, semi-annual general monitoring reports and annual compliance statements.

B.7.4 TRAFFIC (27 CCR, SECTION 21600(b)(8)(I))

Six freeway systems will be utilized to transport solid waste materials to the SCL. Approximately 95 percent of the refuse being transported to the project site will use one of these existing freeway systems. All traffic will enter the project site via San Fernando Road from one of eight main access routes, including: (i) north

along I-5 Freeway; (ii) south along SR-14; (iii) west along the Foothill (I-210) Freeway; (iv) southeast along I-5 Freeway; (v) north along the San Diego (I-405) Freeway; (vi) east and west along the Simi Valley-San Fernando Valley (SR-118) Freeway; (vii) north on San Fernando Road; and (viii) north on Balboa Boulevard to San Fernando Road (this route is restricted to light vehicles only, weighing less than 6 tons, except for refuse collection vehicles that serve the local communities) [UEI, 1997].

Refuse vehicles, personnel, and deliveries to the SCL will access the site via the proposed access road shown on Figure 6 and further described in Section C.3.6. Based on the traffic impact analysis included in the SEIR which was subsequently summarized in the County Addendum to the SEIR, as many as 1265 vehicles per day including transfer trucks, curbside collection trucks, local delivery trucks, and vendor and employee vehicles will utilize the SCL on a daily basis. Approximately six to eight scales will be installed as part of the proposed access road. Traffic from the scales house to active working face will be routed as follows:

- vehicles will enter the site at the main entrance gate;
- vehicles will follow the proposed asphalt concrete paved access road up to the proposed scale facilities;
- vehicles will be weighted and a disposal ticket processed;
- vehicles will be directed to the active disposal area by the scale house operator, traffic directors, or signage;
- beyond the scales, vehicles will follow asphalt concrete paved access roads to the landfill haul roads, landfill haul roads will be constructed as operations progress to each disposal cell with sufficient signage, traffic control personnel, and other traffic controls as may be necessary (i.e., concrete barriers, traffic cones, and temporary fencing) to ensure safe access to the active working face; and
- once wastes are unloaded at the active working face, vehicles will be directed back to the haul roads and access road for exit from the site:
  - vehicles that access the site on a routine basis will have their empty weight (i.e., tare weight) stored in the computerized scale system and will exit the site without returning the scale facility; and

- vehicles without a stored tare weight will be directed back to the scale house for further processing and eventual exit from the site via the access road.

Control of traffic to minimize interference and safety problems leaving and entering the site have been addressed as part of the mitigation measures included in measure 8.0 of the SCL Mitigation Monitoring and Reporting Summary for Conditional Use Permit 00-194-(5) and Oak Tree Permit 86-312-(5) (see Appendix T). These measures have either been implemented or are being implemented throughout fill operations.

B.7.5 HAZARDOUS WASTE (27 CCR, SECTION 21600(b)(8)(J))

A Hazardous Waste Screening Program (HWSP) for the SCL was implemented to complement the load checking program (see Appendix H) and comply with state and federal regulations under 27 CCR, Sections 20220 and 20870. These regulations state that "Owners or operators of all Municipal Solid Waste Landfill (MSWLF) units must implement a program at the facility for detecting and preventing the disposal of regulated hazardous wastes as defined in Part 261 of this chapter (40 CFR, Chapter 1) and polychlorinated biphenyl (PCB) wastes as defined in Part 761 of this chapter (40 CFR, Ch 1)." Section B.6.4.1, Load Checking Program, includes a more detailed discussion of the hazardous waste screening and load check program.