

City of Kerrville Landfill Kerr County, Texas Major Permit Amendment Application

Prepared for:



**TCEQ MSW PERMIT NO: 1506B
SUBMITTED AUGUST 2018**

Prepared by:



engineers | architects | surveyors

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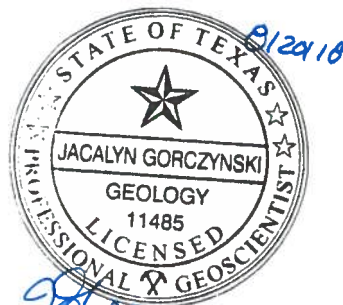
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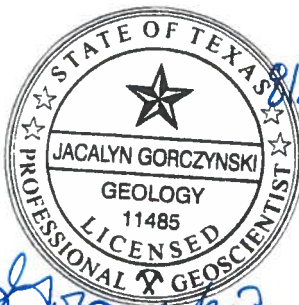
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City of Kerrville Landfill Kerr County, Texas Major Permit Amendment Application PART IV

Prepared for:



**TCEQ MSW PERMIT NO: 1506B
SUBMITTED AUGUST 2018**



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PART IV
SITE OPERATING PLAN

SITE OPERATING PLAN

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8/20/18
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"For Permitting only"

1.0 INTRODUCTION

This plan has been prepared to fulfill the requirements of 30 TAC §330.57(c)(4), §330.65, §330.127, and related sections, and to serve as a reference for the site operator during daily operations at the City of Kerrville Landfill. The Site Operating Plan (SOP) will guide the operator in maintaining the necessary personnel and equipment for proper operation of the site and in following and documenting the proper procedures in the day-to-day operations. Procedures addressed in the plan include required notices, record-keeping, inspections and maintenance, access control, waste screening and rule enforcement, fill operations, environmental protection measures, and fire control.

Wherever the term "executive director" or "TCEQ" is used in this SOP, they shall refer to the current executive director of the Texas Commission on Environmental Quality (TCEQ) or his/her designated representative. References to information in the permit or permit application for this facility shall refer to the most current version of these documents, including any amendments, modifications or revisions, as approved.

2.0 PRE-OPERATION NOTICE - §330.123

Prior to placement of waste in a new disposal area, the operator will provide written notice to the executive director in form of a Soil Liner Evaluation Report (SLER) and a Geomembrane Liner Evaluation Report (GLER). The notice shall be provided to the executive director a minimum of 14 days prior to the anticipated date for the placement of waste. If, by the end of the 14th day following the executive director's receipt of the reports, no comments are received, waste may be placed in the new disposal area.

3.0 RECORDKEEPING REQUIREMENTS - §330.125

3.1 Record and Retain - §330.125 (a)-(g)

A copy of the permit, approved Site Development Plan (SOP), Site Operating Plan (SOP), Final Closure Plan (FCP), Post-closure Maintenance Plan (PCMP), Landfill Gas Management Plan (LGMP) and any other required plan or other related documents shall be considered a part of the operating record for the facility. Additionally, within seven days of completion or receipt of analytical data, as appropriate, the following information will be recorded and retained in the operating record:

Table 1

| Item | Frequency | Rule Citation |
|---|-----------------------------------|----------------|
| All location restriction demonstrations | Submitted with Permit Application | §330.113(b)(1) |
| Inspection logs and records, training procedures, and notification procedures relating to excluding the receipt of prohibited waste | Per Occurrence | §330.113(b)(2) |
| Results from gas monitoring events | Quarterly | §330.113(b)(3) |
| Remediation plans relating to explosive and other gases | Per Occurrence | |

| Item | Frequency | Rule Citation |
|--|--|----------------------|
| Unit design documentation for the placement of leachate or gas condensate in the landfill | Monitoring - Semi-Annual/Corrective Action - As Required | §330.113(b)(4) |
| Inspection logs and reports and all demonstrations, certifications, findings, monitoring, testing, and analytical data relating to groundwater monitoring and corrective action | As Required | §330.113(b)(5) |
| Closure plans and Post-Closure Plans | Submitted with Permit Application | §330.113(b)(6) |
| Post-closure monitoring, testing, and analytical data, if applicable | Groundwater Monitoring - Semi-Annual Inspections | §330.113(b)(6) |
| Cost estimates and financial assurance documentation relating to financial assurance for closure and | Annually | §330.113(b)(7) |
| Copies of all correspondence and responses relating to the operation of the facility, modifications to the permit, temporary authorizations, approvals, and other matters pertaining to technical assistance | Per Occurrence | §330.113(b)(9) |
| Any and all documents, manifests, generator waste profile sheets, etc., involving special waste | Per Occurrence | §330.113(b)(10) |
| RACM Acceptance Records | Per Occurrence | §330.113(b)(10) |
| Other documents as specified by the approved permit or by the Executive Director of the TCEQ Acceptance Records | As Required | §330.113(b)(11) |
| Personnel Training Records - §335.586(d) - (e) | As needed | §330.113(e) |
| Personnel Operator Licenses | As needed | §330.113(f) |
| Annual waste acceptance rate documentation | Annually | §330.113(h) |
| Quarterly and Annual Solid Waste Summary Reports as required by §330.603 | Quarterly/Annually | §330.113(h) |

All information will be retained within the operating record on site, or at an alternate location approved by the executive director, for the life of the facility including the post-closure care period. All information contained in the operating record will be maintained in an organized format, furnished upon request to the executive director and will be made available at all reasonable times for the executive director's inspection.

3.2 Annual Waste Acceptance Rate Records - §330.125 (h)

The annual waste acceptance rate will be determined and documented on the quarterly solid waste summary reports and annual solid waste summary reports as required by §330.603. It is estimated that the maximum annual waste volume for the

City of Kerrville Landfill will be 93,463 tons (see Part III, Attachment 4: Site Operating Life) at the end of the projected landfill life span. If the actual waste acceptance rate, as determined by the sum of the previous four (4) quarterly solid waste summary reports, exceeds this rate, an application to modify the permit will be filed within 90 days of the exceedance. The permit modification application will include proposed changes to this SOP to manage the increased acceptance rate to protect public health and the environment.

4.0 PERSONNEL - §330.127

The operations staff will be familiar with the SOP and trained for specific job responsibilities. Operations personnel will attend seminars on landfill operations and safety, and will be trained to handle possible emergency situations. The estimated typical personnel requirements and their responsibilities for this site are:

4.1 Landfill Manager

The Landfill Manager is responsible for day-to-day landfill operations, administration of the SOP, and also serves as emergency coordinator. The Landfill Manager is also responsible for assuring that adequate personnel and equipment are available to provide facility operation in accordance with the SOP, TCEQ regulations, and all other applicable federal, state, and local regulations.

The Landfill Manager must hold a Class A MSW operator's license and have a minimum of five (5) years of experience in landfill operations, landfill construction, heavy equipment operations, and personnel management. The Landfill Manager will designate an individual to fulfill his/her duties during periods when the Landfill Manager is absent. The designee must hold a Class B MSW operator's license and have a minimum of two years of experience in landfill operations.

The equipment operators, scale house attendant(s), spotters and laborers, and mechanics are under the direct supervision of and will report to the Landfill Manager. The Landfill Manager is responsible for hiring and terminating personnel in these positions.

The Landfill Manager's specific responsibilities include the following:

1. Directing site personnel including laborers, equipment operators, scale house attendant(s), and mechanics in the performance of tasks necessary for daily site operations.
2. Identifying any additional equipment or personnel necessary for normal operations in the event of equipment breakdowns, changes in waste volumes accepted, or other circumstances.
3. Performing inspections and completing inspection forms and checklists. The Landfill Manager may delegate this responsibility to other staff.
4. Monitoring and evaluating the performance of employees with respect to assigned duties and compliance with regulatory requirements.

5. Anticipating changes to the operating practices necessary due to changes in the weather, disposal location, or other conditions affecting site operations.
6. Ensuring that inspections and monitoring (e.g., leachate collection system, GCCS, perimeter LFG monitoring, and groundwater monitoring) are completed on schedule and in accordance with all requirements. The Landfill Manager may delegate this responsibility to other staff or a third-party consultant.
7. Monitoring for and abating any nuisance conditions, such as litter, odor, dust, and mud tracking.

4.2 Equipment Operators

Equipment Operators are responsible for the safe operation of the equipment. Equipment Operators monitor and direct unloading vehicles and are also responsible for maintenance, construction, litter abatement, and general site cleanup. Equipment Operators are also responsible for identifying prohibited wastes as discussed in Section 8. The Equipment Operators will report any observed unsafe conditions immediately to the Landfill Manager or his designee. Equipment Operators will also report any operational problems to the Landfill Manager. The Equipment Operators report to the Landfill Manager. Equipment Operators that are hired on the basis of previous heavy equipment experience may be assigned to operate specific types of equipment without additional training. Upon their employment, all Equipment Operators without experience in the equipment assigned will receive on-the-job training and oversight from an experienced operator until the new operator becomes proficient on the particular piece(s) of equipment to which he has been assigned, or until he is reassigned to a different piece of equipment for which his previous training or experience is adequate. Equipment Operators may also be required to assist in bird control activities under the supervision of the Landfill Manager or his designee.

All Equipment Operators are required to wear safety equipment, which may include gloves, hardhats, boots, safety glasses, and high visibility clothing, as appropriate, for their work assignments.

The minimum qualifications for the Equipment Operators include being able to fulfill the duties described in this section. In addition, the lead Equipment Operator for each shift must have a minimum of 2 years of experience performing the duties listed in this section.

4.3 Scale House Attendant(s)

The primary job of the scale house attendant(s) is to maintain complete and accurate records of vehicles and solid waste entering the facility. The scale house attendant will be trained on site safety procedures, visual checks for unauthorized wastes, weighing vehicles, collecting waste disposal fees, and directing vehicles to the working face. The scale house attendant(s) report to the Landfill Manager. Specifically, scale house attendant(s) are required to:

1. Monitor the incoming vehicles for type of waste and exclude prohibited waste;
2. Inspect waste loads to confirm that they are authorized for disposal;
3. Review manifests and other shipping documents;

4. Record incoming waste loads;
5. Review and confirm special waste documents; and,
6. Accept tipping fees.

Scale house attendant(s) shall direct visitors to their destination within the facility.

Scale house attendant(s) are supervised by the Landfill Manager and receive training regarding special waste evaluation and acceptance. Any questions regarding acceptance of special waste are to be addressed to the Landfill Manager.

The minimum qualifications for the scale house attendant(s) include being able to fulfill the duties described in this section. In addition, the lead person scale house attendant(s) for each shift must have a minimum of 2 years of experience performing the duties listed in this section.

4.4 Spotter and Laborers

Spotters and Laborers will be assigned to collect litter, direct waste vehicles at the working face, and perform other tasks as needed. Spotters are also responsible for identifying prohibited wastes as discussed in Section 8 (note: Equipment Operators will assume this duty if Spotters are not used). Spotters and Laborers will either be City of Kerrville Landfill employees or contract employees. Laborers may also be required to assist in bird control activities under the supervision of the Landfill Manager or his designee.

Spotters and/or Laborers will be required to wear safety equipment, such as gloves, hardhats, boots, and high visibility clothing, as appropriate, for their work. Spotters and Laborers report to the Landfill Manager.

The minimum qualifications for the Spotters and Laborers include being able to fulfill the duties described in this section.

4.5 Mechanic, as Needed

Mechanics perform necessary and routine maintenance on equipment. Mechanics may substitute as Equipment Operators, if needed, provided they have received the required training. Mechanics report to the Landfill Manager. The minimum qualifications for the Mechanics include being able to fulfill the duties described in this section. This site may also use contract mechanics to perform maintenance on the equipment.

4.6 Other Site Personnel

Other site personnel may be employed for temporary positions in categories such as maintenance, construction, litter abatement, and general site cleanup. Other site personnel will be hired and managed by the Landfill Manager.

5.0 EQUIPMENT - §330.127(2)

The following list represents the minimum equipment which will normally be at the site. This equipment can handle the current annual waste volume as well as the estimated maximum annual waste volume.

Table 2

| Equipment | Minimum Number of Equipment Needed for Each Range of Waste Volume ¹ | | Equipment Minimum Size ² | Function |
|-----------------------|--|------------------------|-------------------------------------|---|
| | 1 – 5,000 Tons/Yr | 5,000 – 80,000 Tons/Yr | | |
| Bulldozer | 1 | 1 | 145 hp or 30,000 lbs | Spreading and Compaction of Solid Waste or Soil |
| Compactor | --- | 1 | 50,000 lbs | Compaction of Solid Waste or Soil |
| Water Truck(s) | 1 | 1 | 2,000 gallons | Dust Control and Fire Fighting Support |
| Scraper or Dump Truck | 1 | 2 | 20 cy | Transportation of Soil Material |
| Motorgrader | --- | 1 | 12 inch Blade or 50 hp | Grading of Access Roads and Mud Control |
| Rubber Tire Loader | 1 | 1 | 3.5 cy Bucket | Liquid Waste Stabilization Basin Operations |

¹Number, types, and equipment manufacturers will vary based on operational needs.

²The waste volume will be determined by the sum of the waste acceptance rates listed on the four previous TCEQ quarterly summary reports (as required by 30 TAC 330.113(h)).

Note: As an alternative, the site may contract for maintenance equipment with a third party. Under this scenario, maintenance equipment would only be on-site, as needed.

In addition to the above list, miscellaneous light utility vehicles, water pumps, air compressors, steam cleaners, and safety and training equipment will be on-site as necessary for operational efficiency. Backup equipment will be made available on an as-needed basis from the site operator's other facilities or through leasing or rental services.

6.0 OPERATIONAL PROCEDURES - §330.127(3)

This SOP contains the procedures necessary for the day-to-day operations of the landfill and is meant to be general instructions for operating personnel for operational requirements.

7.0 PERSONNEL TRAINING - §330.127(4)

Site personnel shall receive training in safety procedures, contingency plans, and permit requirements. Site training and safety meetings shall be scheduled at least once per month. If a regular monthly scheduled meeting is canceled, it shall be rescheduled or combined with the scheduled training in the following month. Site personnel shall be scheduled for attendance at training sessions to allow site operations to continue during training sessions.

Records of personnel attending each training session and the topics covered will be maintained at the site.

Although training topics for each month may vary, training shall be conducted at least annually for each of the following topics:

1. Personal protective equipment;
2. Fire extinguisher use;
3. Fire protection, prevention, and evacuation procedures;
4. Asbestos management;
5. Emergency response (to include shutdown of operations);
6. Litter control;
7. Prohibited waste management procedures;
8. Hazardous Waste and PCB Waste detection and prevention;
9. Properties of methane gas and safety procedures for methane gas; and,
10. Random inspection procedures.

A summary of the personnel positions at the landfill with appropriate minimum annual training requirements are included in Table 3, below:

Table 3

| Position | Personal Safety & PPE | Fire Extinguisher Use | Fire Protection/Prevention/Evacuation | Asbestos Management | Emergency Response | Litter/Windblown Waste | Haz Waste & PCB Detection /Control | Prohibited Waste Management | Methane Gas | Random Inspections |
|--------------------------|-----------------------|-----------------------|---------------------------------------|---------------------|--------------------|------------------------|------------------------------------|-----------------------------|-------------|--------------------|
| Landfill Manager | X | X | X | X | X | X | X | X | X | X |
| Equipment Operators | X | X | X | X | X | X | X | X | X | X |
| Scale House Attendant(s) | X | X | X | X | X | X | X | X | | |
| Spotter/Laborers | X | X | X | | X | X | | | | X |
| Mechanic | X | X | X | | X | | | | | |
| Other Personnel | X | | | | X | | | | | |

8.0 PROHIBITED WASTE DETECTION AND PREVENTION - §330.127(5)(a)-(e)

Disposal of prohibited wastes including hazardous waste (hazardous wastes as defined in 40 CFR part 261) or prohibited PCB wastes (PCB wastes as defined in accordance with 40 CFR Part 761) are prohibited at the City of Kerrville Landfill.

The acceptance and disposal of the following prohibited wastes shall not be knowingly or intentionally accepted for disposal at this site:

1. Hazardous Waste (as defined in 40 CFR part 261);
2. Prohibited Polychlorinated Biphenyls (PCBs) wastes, as defined under 40 Code of Federal Regulations, Part 761;
3. Class 1 non-hazardous industrial waste;
4. Lead acid storage batteries;
5. Do-it-Yourself (DIY) used motor vehicle oil;
6. Used-oil filters from internal combustion engines;
7. Whole used or scrap tires, except as authorized by §328.52(d). Split, quartered, or shredded tires may be accepted at the site for disposal;
8. Items containing chlorinated fluorocarbons (CFC's), such as refrigerators, freezers, and air conditioners, will only be accepted at the site if the generator or transporter provides 'written certification that the CFC has been evacuated from the unit and that it was not knowingly allowed to escape into the atmosphere; or,
9. Liquid waste (any waste material that is determined to contain "free liquids" as deemed by EPA Method 9095 (Paint Filter Test), as described in "Test Methods for Evaluating Solid Wastes, Physical chemical Methods" (EPA Publication Number SW-846).

Procedures to detect and control the receipt of prohibited wastes include:

1. Informing facility customers of prohibited wastes by posting one or more signs at the facility entrance listing prohibited wastes.
2. Informing all drivers of incoming waste hauling vehicles, and operators of any transfer stations that have indicated they will deliver waste to the facility for disposal by:
 - a. Posting one or more signs at the facility entrance listing prohibited wastes; and,
 - b. Providing all transfer station operators with a written list of prohibited wastes.
3. Facility personnel training and activities will include:
 - a. Training for appropriate facility personnel responsible for inspecting or observing incoming loads to recognize regulated hazardous waste and prohibited PCB waste;
 - b. Random inspections of incoming loads in accordance with procedures described below;
 - c. Maintaining records of all inspections;
 - d. Notification of the Executive Director of any incident involving a regulated hazardous waste or a prohibited PCB waste at the landfill; and,
 - e. Remediation of any regulated hazardous waste or prohibited PCB waste discovered at the site.

Waste loads are observed at the entrance for the presence of unauthorized wastes. Video monitoring systems are installed at the site entrance for the use of site personnel to visually inspect open-topped waste loads for the presence of unauthorized wastes as they enter the site when directed by the Landfill Manager. Spotters and equipment operators must monitor the working face area for any regulated prohibited wastes which are not authorized for disposal.

Additionally, random inspections will be performed and supervised by the Landfill Manager or designee. The random inspections will be performed by scale house staff, laborers, spotters,

equipment operators, or other site personnel who have received the training on inspection procedures described in this section. Staff conducting random inspections will receive training on the random inspection procedures in this plan and instruction on the recognition of regulated hazardous prohibited wastes. Random inspections will be conducted at or near the working face to facilitate disposal of authorized waste after random inspections.

Except as provided herein, all waste loads will be subject to random inspections. At least one vehicle per day, Monday through Saturday, when the landfill accepts waste for disposal, shall be scheduled for a random inspection. The Landfill Manager shall determine the procedure for the random selection of the waste hauling vehicle that will be selected. The following criteria shall be utilized in the development of the selection procedure:

1. The random selection procedure shall objectively select a waste hauling vehicle each Monday thru Saturday that the facility accepts waste.
2. The random selection procedure shall ensure that waste hauling vehicles are selected at varying times during the appropriate days of each week.
3. The random selection procedure shall apply to all non-excluded waste hauling vehicles that transport waste to the site.
4. If inclement weather or other condition precludes the random inspection from being performed on the scheduled day, that random inspection shall be canceled.

Records of the random inspections will be maintained in the operating record and will include the following information:

1. Date and time of random inspection;
2. Inspector's name and signature;
3. Transporting Company name and license plate number;
4. Source of waste;
5. Contents of load as reported by the driver;
6. Contents of load as observed by the inspector; and,
7. Approval/disapproval of the load.

The City of Kerrville Landfill may accept waste from transfer stations. Wastes received from transfer stations will not be screened at the site if the transfer station is permitted or registered by the TCEQ and random screening procedures are conducted at the transfer station. Copies of the transfer station's TCEQ permit or registration number, and a letter certifying that random waste screening is conducted at the transfer station will be included in the documentation for transfer station loads excluded from random inspection procedures. Transfer station loads not meeting these criteria and vehicles containing special waste will be subject to random inspections.

Inspections near the working face will be conducted away from: 1) the immediate working face, 2) turn around areas, and 3) normal travel routes. Spreading of the waste for inspection may be accomplished by using mechanized equipment or hand implements. Inspectors shall observe the waste materials as the waste discharged from the truck is spread and separated. The waste shall be sufficiently spread to determine its character and composition.

The driver of each waste hauling vehicle that is selected for a random inspection will be directed by site personnel to discharge the waste load at the location indicated. Any regulated hazardous waste or PCB wastes identified will be removed by the transporter or will remain at the landfill until it can be transported to an approved facility. The transporter and/or

generator will be notified of the identification of the unauthorized waste. The transporter of any of these wastes will be required to remove the waste, or at the Landfill Manager's discretion, pay a surcharge to compensate the facility for arranging for the proper disposal of these wastes. If the surcharge is paid, landfill personnel will then arrange for the disposal of these wastes at an authorized facility. The Landfill Manager, or his designee, will contact the transporter and/or generator to notify them of the identification of unauthorized waste. The transporter is required to take all necessary steps to determine the origin to assure that in the future such wastes are either not collected or are taken to a facility approved to accept such waste. The TCEQ Region Office, and/or other appropriate agency, will be contacted by telephone within 24 hours, and the TCEQ Austin Office, Municipal Solid Waste Permits Section, will be notified in writing within 14 days, with a copy sent to the Region Office, providing the name and contact information for the transporter, a description of the waste, and its disposition. Multiple instances of the receipt of regulated hazardous waste or PCB wastes from the same transporter or generator may result in refusal to accept waste from that transporter or generator.

Individuals responsible for inspecting incoming loads shall receive at least annual training in the provisions and procedures of this section. Training shall be conducted by landfill employees or contract personnel experienced in waste inspection and detection requirements. Training shall be scheduled and attendance will be recorded. Records of personnel training in this area will be placed in the site operating record. The training outline shall incorporate the requirements and procedures of this section. Training shall also include state and federal laws and regulations for managing unauthorized waste. The training will at a minimum include the following topics:

1. Safety requirements during inspection procedures;
2. Wastes not authorized for disposal at the site;
3. Methods of identifying unauthorized wastes;
4. Various labels used for waste identification;
5. Safety procedures if unauthorized wastes are encountered; and,
6. Procedures for managing unauthorized wastes encountered.

Incidents where regulated hazardous waste or PCB wastes are transported to the site and are detected during the random inspections shall be managed as described above in this section. Instances where unauthorized wastes are discovered after disposal within the landfill or outside of the random waste inspection procedures shall be managed as directed by the Landfill Manager. The TCEQ Region Office, and/or other appropriate agency, will also be contacted by telephone within 24 hours, and the TCEQ Austin Office, Municipal Solid Waste Permits Section, will be notified in writing within 14 days, with a copy sent to the Region Office, providing the name and contact information for the transporter, a description of the waste, and its disposition.

Automated radiation detection equipment will be installed at each incoming waste scale to allow the detection of any radioactive compounds. The detection equipment will be utilized at each incoming scale except during routine calibration, maintenance, or during repair periods of the detection equipment. Detection of a radioactive material will sound an alarm in a scale house. Upon sounding of this alarm, the following procedures will be followed:

1. The detector will be reset and the vehicle will be required to drive past the detector again to verify detection.

2. If the alarm is sounded a second time, the driver will be instructed to move the vehicle off the scale and park the vehicle in a designated area. No materials are to be removed from the vehicle, nor will any person be allowed to sort through the waste.
3. The driver will be monitored separately from the vehicle to verify that the driver has not set off the alarm. If the driver does not set off the alarm, the load is considered suspect. The Landfill Manager or Special Waste Liaison will direct efforts to identify the waste triggering the alarm.
4. If the radiation alarm is determined to have been activated by regulated radioactive waste material, this material cannot be accepted for disposal and the Texas Department of Health will be notified for further instruction before the vehicle and driver are allowed to leave the site. Directions from the Texas Department of Health will be followed for managing this waste.

9.0 FIRE PROTECTION - §330.129

Fire prevention procedures and primary fire control will be provided by site personnel. Emergency fire control will be provided by the City of Kerrville Fire Department.

9.1 Fire Protection Training

Within thirty days of initial employment and thereafter at least annually, all employees, except personnel with administrative duties only, will receive the following fire training and instruction:

1. Detailed review and discussion of the Fire Protection Plan;
2. Training on fire prevention and hazard awareness;
3. Specific instruction on operation of a portable fire extinguisher;
4. Instruction on the properties of methane gas and proper safety procedures; and,
5. Facility evacuation procedures.

Personnel with administrative duties only will receive annual fire protection training on facility evacuation procedures and fire prevention as designated by the Landfill Manager. Each training session for both operating and administrative personnel will be documented with a form identifying the type of training, topics covered, trainer, and attendees. Training records will be retained in the Site Operating Record.

9.2 Fire Protection Standards

9.2.1 Posted Information

The following fire protection information will be posted at the site:

1. Emergency contact phone number(s) for site personnel at the main entrance to the site.
2. "No Smoking" signs posted at the entrance, leachate risers, leachate tank, and other areas deemed necessary by the Landfill Manager.

9.2.2 Fire Safety Rules

The following fire safety rules will be posted at the scale house.

1. Do not attempt to fight fire alone.
2. Be familiar with the use and limitation of firefighting equipment.
3. Alert other facility personnel in the area.
4. Assess extent of fire and likelihood that the fire will spread.
5. Contact the local fire department at 911, as necessary.
6. Attempt to contain or extinguish the fire until the fire department arrives if the fire can be safely fought with onsite firefighting equipment.

9.2.3 Burning Waste Loads (Hot Loads)

Steps will be taken to identify incoming "hot loads" prior to their being unloaded for disposal at the working faces. The scale house attendant(s), Equipment Operators, and Spotters must be alert for signs of hot loads, such as smoke, steam, or heat being released from incoming waste loads.

Firefighting methods for hot loads include smothering with soil, separating burning material from other waste, or spraying with water from the water truck. A small fire may be controlled with a hand-held extinguisher.

In the event of a "hot load" fire within a vehicle or piece of equipment, the vehicle or equipment will be driven away from the active working face and brought to a safe stop in a suitable "hot load" area where the burning waste will be ejected. Areas suitable for "hot loads" may be any space within a lined area, away from any fuel storage areas or exposed waste, preferably at least 50 feet away from an access road, with either no waste deposited or waste with at least six inches of soil cover. A water truck, bulldozer, or other equipment will be used to extinguish the burning waste load. The waste will be covered with an adequate amount of soil to ensure it is extinguished. The load will be inspected by the Landfill Manager, or his designee, before transporting it to one of the working faces. During inspection, if the soil is removed which would allow oxygen to contact the waste, the load will be observed for hot spots or flare-ups. No smoldering or smoking waste will be placed in the working face area for permanent burial until all hot spots or flare-ups have been extinguished.

If it is not possible to move a burning vehicle away from fuel storage or exposed waste, the local fire department shall be called immediately at 911. While awaiting the arrival of the local fire department, all reasonable measures should be employed to extinguish the fire and prevent it from spreading beyond the vehicle.

9.3 Accidental Fires

Open burning of waste at the site is not permissible. All fires will be extinguished using the protocols stated in this section. Proper compaction and earth cover will be used to minimize the potential for accidental fires.

9.4 Preventative Procedures

Fuel spills will be controlled immediately. Soil contaminated with spilled fuel will be excavated and, if authorized, disposed of at the working face. Contaminated soils may be excavated using a shovel for small areas or with heavy equipment as appropriate.

Onsite brush and vegetation will be controlled through mowing at least semi-annually to reduce the possibility of brush fires from spreading to the landfill or off-site.

The compaction of the waste as it is disposed, and the subsequent covering with daily soil cover, will reduce the potential for fires by reducing voids within the waste and the amount of oxygen available for combustion. The daily cover serves as a physical, non-combustible barrier to a fire.

In addition, equipment that is used at the working face may be routinely cleaned through the use of high pressure water or steam cleaners. The high pressure water or steam cleaning will remove combustible waste and caked material which can cause equipment overheating and increase fire potential. The amount of water used to clean the equipment will be minimized.

Each piece of engine driven equipment at the site listed in Section 5 will carry a portable fire extinguisher. Fire extinguishers will be inspected and certified at least annually. Once any extinguisher has been used, it will be refilled or replaced as soon as possible. The piece of equipment shall not be returned to normal service without a fully charged fire extinguisher installed.

9.5 Vehicle or Equipment Fire

If equipment or other site vehicles experience a fire, the operator should bring the vehicle or equipment to a safe stop. If safety of personnel will allow, the vehicle must be parked away from fuel supplies, uncovered solid waste, and other vehicles. The operator will attempt to shut off the engine and engage the brake. Lowering of any implements should be attempted as a means to prevent subsequent movement of the vehicle.

9.6 Structure Fire

The City of Kerrville Fire Department will be called at 911 for all structure fires. No site personnel will enter a structure on fire.

9.7 Working Face Fire

If the fire is in the working face, the spotter (or Equipment Operator) will first redirect incoming loads away from the affected area. The burning area should be isolated, cut out of, or pushed away from the working face quickly, or firebreaks should be cut to prevent the fire from spreading. If this is not possible or unsafe, efforts to cover the working face with soil will be initiated immediately to smother the fire. Upon extinguishing a fire at the working face through smothering with soil, that portion of the active face will remain closed while the area is inspected to ensure the fire is completely extinguished. Inspection of the fire area will be conducted by the Landfill Manager or his designee. Additional soil loads will be on standby near the active face should the inspection determine that the placement of additional soil is necessary.

After the Landfill Manager or his designee confirms that the fire has been extinguished, waste filling operations in that area may resume.

9.8 Soil Stockpile Requirements

A stockpile of soil large enough to cover the working face with at least six inches of earth will be maintained within 1,000 feet of the working face. In the event of a waste fire at the working face, the soil will be used for spreading over the working face to smother the fire. The equipment listed in Section 5 for waste and soil spreading shall be utilized for moving and spreading the soil stockpile as necessary. As the active face moves, it may often be practical to have several soil stockpiles closer than 1,000 feet. If the soil stockpiles are in the way of future waste disposal, a new stockpile will be constructed. Old stockpiles, which have been replaced, may be used as daily cover or intermediate cover. At least monthly, the Landfill Manager, or his designee, will evaluate the maximum anticipated working face area for the current conditions and will evaluate the available soil stockpile volume and location for sufficiency. This evaluation (and the evaluation of needed equipment) will be maintained in the Site Operating Record. The maximum size of the working will be 10,000 ft² and a minimum volume of earthen material (i.e., soil stockpiles or soil within borrow areas) shall be determined to cover the maximum working area for each working face with a minimum of six inches of soil. The volume of earthen materials available shall be estimated by determining the cubic yards of material hauled or placed during the creation of the stockpile or measuring the current stockpile or borrow area dimensions and applying appropriate geometric volume formulas. Each evaluation will be documented in the Site Operating Record. The minimum equipment listed in Section 5 will provide for sufficient equipment to transport and spread soil from the stockpile or borrow area to the working face within one-hour. A demonstration of this sufficiency is included in Appendix A.

9.9 Compost Area Fire

If a fire occurs in the Compost Area, field personnel will first redirect incoming loads away from the affected area. Firefighting methods include smothering with soil, separating burning material from other waste, or spraying with water from the water truck. A small fire may be controlled with a hand-held extinguisher. Upon extinguishing the fire, the portion of the Compost Area affected by the fire will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Landfill Manager or his designee. A soil stockpile of at least 100 cubic yards will be maintained within 500 feet of the Compost Area, so that a dozer can move and spread the soil over the Wood Waste Grinding Area in the event of a fire.

9.10 Liquid Waste Solidification Basin Fire

The "no smoking" rule at the basin will be enforced by all personnel and will apply to employees, visitors, and customers onsite. In the event of an accidental fire, the fire will be extinguished by (1) smothering with soil, or (2) applying water from the water truck. A soil stockpile of at least 100 cubic yards will be maintained within 500 feet of the Liquid Waste Solidification Basin, so that heavy equipment can move and spread the soil over the solidification basin(s) in the event of a fire.

9.11 Contacting Fire Department and TCEQ

In the event of a fire at the facility, the individual discovering the fire will attempt to contact the Landfill Manager, or his designee. If contacted, the Landfill Manager or his designee will immediately call 911, or the local fire department, for any fires that are not quickly extinguished within ten minutes from detection. If the Landfill Manager or his designee is not immediately contacted, the individual discovering the fire shall call 911 or the local fire department and report the fire unless the fire is quickly extinguished within ten minutes from detection. If firefighting assistance is needed from the local fire department, scale house attendant(s) will also be notified, and will direct the arriving fire department personnel to the scene of the fire. If a fire occurs that is not extinguished within ten minutes of detection, the TCEQ Region Office shall also be contacted by telephone within 4 hours, and the TCEQ Austin Office, Municipal Solid Waste Permits Section, will be notified in writing within 14 days, with a copy sent to the Region Office, and will be provided with a description of the fire and the resulting response.

10.0 ACCESS CONTROL - §330.131

10.1 Access

Public access to the landfill is controlled by perimeter fencing and a lockable gate at the entrance which will be locked when the landfill is closed. Fencing will be a minimum of 4 feet high and will consist of chain-link, barbed-wire or equivalent. The site entrance facilities (scale house) will be staffed at all times during hours of operation. Scale House Attendant(s) will control access and monitor all vehicles entering and exiting the site.

10.2 Security

Site security measures are designed to prevent unauthorized persons from entering the site, to protect the facility and its equipment from possible damage caused by trespassers, and to prevent disruption of facility operations caused by unauthorized site entry. The Kerrville Police Department and the Kerr County Sheriff's Department will provide security for this when the landfill is closed.

Unauthorized entry into the site is minimized by controlling access to the landfill site with the perimeter fence and gated entrance. The perimeter fence and gate will be inspected every week. Repairs and maintenance will be performed as necessary.

In the event of a breach of the access controls (i.e., a portion of a fence is impacted in a way that it no longer prevents access to the site), the TCEQ Regional Office will be notified within 24 hours of detection of the breach. The breached area will be temporarily repaired within 24-hours of detection and will be permanently repaired by the time specified to the TCEQ Regional Office when it was reported in the initial breach report. In this case, the TCEQ Regional Office will also be notified when the permanent repair is completed. If a permanent repair can be made within 8-hours of detection, no notification to the TCEQ Regional Office is required. Temporary repairs may consist of a barbed wire fence, a 3-foot high earthen berm, or a security guard posted in the area of the breach.

Entry to the active portion of the site will be restricted to designated personnel, approved waste haulers, and properly identified persons whose entry is authorized by the City of Kerrville Landfill management. Visitors will be allowed on the active area only when accompanied by a site representative (note that third party contractors completing construction or monitoring activities will not be considered visitors for the purpose of access control). Site personnel are trained to identify what personnel are authorized to enter the site. For example, third party contractors, other personnel completing site maintenance activities, and visitors are required to complete the site's check-in procedure at the entrance facilities prior to accessing the site. The check-in procedure consists of signing the site access log book which requires the third party to identify themselves and state the purpose for needing access to the site. A phone number, address, date, and time of check-in are also required. Third-party contractors and visitors are also required to sign-out before they leave the site.

10.3 Traffic Control

Approved waste haulers will be directed to appropriate unloading areas by signs located along the landfill access road. These vehicles will deposit their loads and depart the site. No private or commercial solid waste vehicles will be allowed access to any areas other than the active portion of the landfill. Site personnel will provide traffic directions as necessary to facilitate safe movement of vehicles.

Within the site, signs will be placed along the landfill access road, beginning at the gated entrance, at a frequency adequate for users to be able to understand where unloading areas are located and which roads are to be used for ingress and egress. Roads not being used for access to unloading areas will be blocked or otherwise marked for no entry.

11.0 UNLOADING WASTE - §330.133

11.1 Municipal Solid Wastes

The unloading of municipal solid wastes will be confined to as small an area as practical but in no case larger than 200 feet x 100 feet. Scale House Attendant(s) will be present at the entrance to monitor all incoming loads of waste and will direct traffic to the appropriate unloading area. Random load inspections will be conducted in accordance with Section 8. Appropriate signs shall also be used to indicate where vehicles are to unload. The use of forced access lanes, identified by ditches, dikes, fences, or other means, will be used in conjunction with signs for the prevention of indiscriminate dumping. The Landfill Manager is not required to accept any solid waste which they determine will cause or may cause problems in maintaining full and continuous compliance with the permit. A Spotter (Equipment Operator) will observe the unloading of all wastes.

The unloading of waste in unauthorized areas is prohibited. The Landfill Manager will take the necessary steps to ensure compliance with this provision. Any waste deposited in an unauthorized area will be promptly removed and disposed of properly.

The unloading of prohibited wastes at the landfill is not allowed. Necessary steps will be taken by the operator to ensure compliance with this provision. Any prohibited waste will be returned promptly to the transporter or generator of the waste.

11.2 Woody Waste/Brush

Woody waste/brush that is delivered to the site will be stockpiled in an area that has not received waste, has a minimum of 12 inches clean, well compacted soil cover (intermediate cover), or in the designated composting area. Signs will be maintained to identify the separate woody waste/brush and active disposal areas. The woody waste/brush will be periodically ground and stockpiled. Ground woody/waste may be:

1. Used at the City of Kerrville's registered compost facility located at the landfill;
2. Used as erosion control measures on bare areas or areas of channelized flow;
3. Used to improve traction on site roads during wet weather;
4. Used as alternative daily cover material;
5. Used as a bulking agent in the liquids stabilization basin;
6. Distributed to the public; or,
7. Disposed of at the working face.

11.3 Special Wastes

Special waste, including liquids, will be handled in accordance with Section 30, Disposal of Special Wastes.

12.0 HOURS OF OPERATIONS - §330.135

The landfill may be open for waste acceptance on Monday through Saturday from 7:00 a.m. to 7:00 p.m. The actual waste acceptance hours may be less than these hours as determined by the Landfill Manager and will be posted at the site entrance. No waste is accepted on Sundays. A sign will be posted at the site entrance to notify customers and the public of these waste acceptance hours. This sign will clearly designate the days when the landfill will be open and when it is closed for waste acceptance. When the landfill is not open for waste acceptance, landfill construction and maintenance, equipment maintenance, office work, and other activities may still be performed any day of the week. Any activities involving the operation of heavy equipment shall not be performed before 5:00 a.m. or after 9:00 p.m. except for emergencies or for response to weather-related events. Any change in waste acceptance hours due to emergency events or in response to weather related events will be recorded in the operating record at the site. When waste is not being accepted, the main gate to the scale houses must remain closed to waste hauling vehicles. Access to the facility by waste disposal vehicles for waste disposal is prohibited outside of the specified waste acceptance hours.

Up to five days of the calendar year the facility may have alternative waste acceptance hours to accommodate special occasions, special purpose events, holidays, and/or other special occurrences. The five days may be the day following a holiday (New Years, Memorial Day, July 4th, Thanksgiving, Christmas, etc.), a special event, a citizen collection day, etc. The extended waste acceptance hours may be anytime from 5:00 a.m. until 9:00 p.m. Monday through Saturday. The facility is not required to obtain agency approval to accept waste on these days, but must notify the Region Office in advance. The City of Kerrville will seek approval from the TCEQ Region 13 office for additional temporary waste acceptance or operating hours to address disaster or other emergency situations, or other unforeseen circumstances that could result in the disruption of waste receipt at the facility. The dates and times when any alternate or additional waste acceptance or operating hours are utilized will be documented in the site operating record.

13.0 SITE SIGN - §330.137

A sign measuring at least four feet by four feet will be maintained at the site entrance and will be readable from the site entrance. The sign will state, in letters at least three inches high, the type of site, the hours and days of operation, an emergency 24-hour contact number that reaches an individual with the authority to obligate the facility at all times the facility is closed, the local emergency fire department phone number and the TCEQ Permit Number. Additional signs shall be prepared for further traffic control and exclusion of hazardous and unacceptable wastes, if warranted.

14.0 CONTROL OF WINDBLOWN WASTE AND LITTER - §330.139

The working face will be maintained and operated in a manner to control windblown solid waste. The following methods will be used to control windblown wastes:

1. Solid waste haulers will be required to use adequate covers or other means of containment. The adequacy of covers or containment of incoming wastes will be checked at the facility entrance. Scale house attendant(s) will visually inspect each vehicle entering the site to verify that the load is secured. A sign will be posted at the entrance indicating that vehicles shall be covered (secured) or an additional fee will be charged.
2. Daily cover (e.g., soil or ADC) will be applied at the end of each operating day to areas that have received waste that day and that have not already received cover. Areas that have been covered with daily cover for longer than 180 days (without receiving a new application of daily cover) will be covered with intermediate cover. The application of cover will assist with the control of windblown waste. The working face size may be also reduced by the application of daily cover to assist with the control of windblown waste.
3. Portable fencing will be used for the confinement of windblown material in the areas adjacent to the MSW working face area. Such fences shall be located along the downwind length of the MSW working face area. The litter control fences will be constructed of mesh screens attached to portable frames or other appropriate anchor methods. The litter control fence will be at least eight feet in height and will be located as close as practical to the MSW working face area to control windblown waste and litter. Each day the landfill accepts waste, the Landfill Manager or his designee will review weather forecasts to verify that the litter control fences will be positioned downwind from the MSW working face.
4. Temporary fencing will also be installed on the downwind side of the MSW working face. The purpose of the temporary fencing is to catch windblown waste that escapes the portable fencing discussed above. The temporary fence will either consist of additional portable fencing described above or be constructed using metal or wooden posts and woven wire fence material, or netting. The secondary fence shall have a minimum height of four feet and a minimum length of at least one hundred fifty feet (or a minimum length that matches the working face length). The Landfill Manager, or his designee, shall determine the appropriate fence location and actual length. Additional fences may be used as necessary for effective litter control based on the actual filling location, filling direction, wind direction, and wind speed. Any litter control fencing which is damaged by equipment or traffic shall promptly be repaired or replaced.
5. Tall perimeter fencing may also be used for the control of windblown waste and litter. Tall perimeter fencing may be installed between any waste filling area and the permit

boundary. The tall perimeter fence will be at least fifteen feet in height. The actual length and height of the perimeter fencing used will be determined by the Landfill Manager or his designee, based on the need for this additional litter control measure, filling location, average wind direction, average wind speed, height of fill above natural ground surface, and proximity of working face to the permit boundary.

6. As part of the overall site maintenance program, facility personnel will collect windblown waste materials that may have accumulated throughout the site, on fences and gates, and onsite access roads a minimum of once a day that the site is in operation. Such waste will be taken to and disposed of at the MSW working face. The collection of windblown waste will be an ongoing activity at the site each day the site is in operation.
7. Asbestos wastes will be covered immediately after they are placed in the landfill, therefore windblown waste in this area is not an issue.
8. The wastes in the Liquid Waste Bulking Facility are also not subject to wind given that the material is handled within containers.
9. Portable or temporary fencing as discussed above may be used in the compost area to control stored material, if needed.

15.0 EASEMENTS AND BUFFER ZONES - §330.141

A minimum buffer zone of 50 feet will be maintained between the permit boundary and waste processing. A minimum buffer zone of 125 feet will be maintained between the permit boundary and disposal activities. No solid waste unloading, storage, disposal, or processing operations shall occur within any buffer zone, utility, easement, or right-of-way. All buffer zones, as depicted in Figures within Part III, Attachment 1, will be clearly marked as specified by TCEQ rules (see Section 16, below). Buffer zones will be maintained and available for the safe passage of firefighting and other emergency vehicles. See Part I, Attachment 3 for utility, easement, and right-of-way information.

The City of Kerrville is considering a Solar Energy Ground Lease with a third-party. If executed, the agreement would lease an approximate 7-acre area ("Premises") within the proposed landfill expansion waste footprint for use by the third-party for a solar-powered electrical energy generating facility. The area under consideration for the lease encompasses portions of proposed landfill cells 19 and 20. The agreement will also grant an operations easement, a transmission easement, and access to the leased area. Solar facilities will be decommissioned and removed from the Premises and the lease agreement and associated easement(s) terminated prior to construction of proposed landfill cells 19 and 20.

16.0 LANDFILL MARKERS AND BENCHMARK - §330.143

Landfill markers will be installed to clearly mark significant features. The markers will be steel, wooden, or plastic posts (or other TCEQ approved material) and will extend at least 6 feet above the ground surface. The markers will not be obscured by vegetation and will be placed in sufficient numbers to clearly show the required boundaries. Markers will be installed with an offset where markers otherwise would not be visible. Markers that are removed or destroyed will be replaced within 15 days of their removal or destruction. Landfill markers will be inspected monthly to ensure they are installed and maintained in accordance with the requirements of this SOP and will be repaired as necessary. Inspection results and

repairs will be documented in the Site Operating Record. Markers will be repainted as needed to retain visibility.

All markers will be color-coded as follows:

| Marker | Color |
|-----------------------------|--------|
| Facility Boundary | Black |
| Buffer Zone | Yellow |
| Easement and Right-of-Way | Green |
| Landfill Grid System | White |
| Soil/Geomembrane Liner Area | Red |
| 100-Year Flood Protection | Blue |

Facility boundary markers shall be placed at each corner of the facility and along each boundary line at intervals no greater than 300 feet.

Markers identifying the buffer zone shall be placed along each buffer zone boundary at all corners and between corners at intervals of 300 feet.

Easement and right-of-way markers shall be placed along the centerline of an easement and along the boundary of a right-of-way at each corner within the facility and at the intersection of the facility boundary.

A landfill grid system has been established at the site. The grid system will encompass at least the area expected to be filled within the next three-year period. Grid markers will be maintained during the active life of the site. The grid system consists of lettered markers along two opposite sides, and numbered markers along the other two sides. Markers are spaced no greater than 100 feet apart measured along perpendicular lines. Where markers cannot be seen from opposite boundaries, intermediate markers will be installed, where feasible.

Soil/geomembrane liner area markers will be placed so that all areas for which a SLER/GLER has been submitted and approved are readily determinable. These markers will be located so that they are not destroyed during operations until operations extend into the next soil/geomembrane liner area. The locations of these markers are tied into the landfill grid system and will be reported on each SLER/GLER submitted. Soil/geomembrane liner markers will not be placed inside the evaluated areas.

A permanent benchmark has been established at the site as shown in Part III, Attachment 1 Figures in an area that is readily accessible and will not be used for disposal. The benchmark is a bronze survey marker stamped with elevation and survey date and is set in concrete.

17.0 MATERIALS ALONG THE ROUTE TO THE SITE - §330.145

The Landfill Manager will take steps to encourage vehicles hauling waste to the site are enclosed or provided with a tarpaulin, net or other means to effectively secure the load in order to prevent the escape of any part of the load by blowing or spilling. The Landfill Manager will take actions such as posting signs, reporting offenders to proper law enforcement offices, adding surcharges, or similar measures. On days when the site is in operation, site personnel will be responsible for at least once per day cleanup of waste materials spilled along the landfill access road and Loop 534 right-of-way for a distance of two miles in either direction from any entrances used for the delivery of waste to the site. The Landfill Manager will consult with

officials of the Texas Department of Transportation (TxDOT) concerning clean-up of state highways and roadways.

18.0 DISPOSAL OF LARGE ITEMS - §330.147

White goods (i.e., refrigerators, stoves, dishwashers) will be collected in a designated area within the permit boundary and will be recycled, disposed of in the landfill as described herein, or transported to the transfer station for disposal. Refrigerators, freezers, air conditioning units, or other items containing chlorinated fluorocarbon (CFC) refrigerant will be handled in accordance with 40 CFR §82.156(f), as amended. Items containing CFC's will not be accepted unless the CFC contained in the item has been captured and sent to an approved CFC disposal site or recycling facility and the generator or transporter provides written certification that the CFC has been evacuated from the unit. No white goods containing CFC's will be disposed of at this site.

Large items that are not recycled will be reduced in size at the working face to the extent practical. Care will be taken during disposal of large items to ensure that: (1) large items are excluded from the initial 5 feet of waste placed over the liner system, (2) large items are placed so that they do not interfere with continued waste filling, and (3) that other, smaller municipal solid waste is placed and compacted around them. Items such as electrical equipment, which contains PCBs, will be excluded from waste fill.

Large items will be removed from the site often enough to prevent these items from becoming a nuisance and to preclude the discharge of any pollutants from the area.

19.0 AIR CRITERIA - §330.149

19.1 Air Quality Control

The City of Kerrville Landfill is subject to TCEQ jurisdiction regarding burning and air pollution control and operates under Air New Source Permit No. 91675. The site personnel will insure that the landfill does not violate any applicable requirement of the approved state implementation plan developed under the Federal Clean Air Act, §110, as amended and §330.5(d) which prohibits open burning of waste at any municipal solid waste landfill. Open burning of waste is prohibited at the City of Kerrville Landfill.

19.2 Odor Management

Any ponded water at the site shall be controlled to prevent the occurrence of nuisance odors as further provided in Section 28. In the event objectionable odors do occur, measures shall be taken to alleviate the condition such as draining the ponded water or regrading to prevent ponding. These measures can also include filling of low areas, pumping water from areas where water collects, and treating collected water.

Wastes are to be deposited at the working face, spread into layers that can be readily compacted, and covered with a minimum of six inches of soil or other waste material. Sludges are to be incorporated into the working face and quickly covered with incoming wastes and daily cover. Dead animals are to be covered immediately upon placement into the working face with three feet of waste or two feet of soil. Waste that is identified as particularly odorous by the gate attendant or equipment operator will be buried immediately upon receipt in the working face with prompt compaction and

covered with incoming waste and/or daily cover. Salvaged items will be removed often enough to control odors.

A landfill gas collection and control system is operated to remove landfill gas from filled areas. The collection wells and piping will be constructed and maintained to ensure the effective collection of landfill gas. Equipment to release odor-controlling compounds may also be used to control odors from the working face. Highly odorous wastes will be promptly mixed with appropriate stabilization materials in the stabilization basin and promptly removed after treatment for disposal at the working face. Highly odorous waste materials received at the working face will be promptly covered with soil or other waste materials.

20.0 DISEASE VECTOR CONTROL - §330.151

The City of Kerrville Landfill will control on-site populations of disease vectors, which include rodents, excessive bird populations, flies, mosquitoes, and other insects or animals capable of transmitting diseases to humans. The primary means of control will be to prevent, inhibit, or deter vectors from coming into contact with deposited waste through proper waste compaction and daily cover application. Waste deposited at the working face will be promptly compacted and daily soil cover will be applied at the end of each operating day.

The landfill will also contract with a licensed commercial pesticide applicator to conduct at least semi-annual inspections of the filled area (including the working face). Documentation of these inspections will be maintained in the on-site records for at least three years. If these inspections identify the need for additional vector controls, the landfill will implement a control program by contracting with a licensed commercial pesticide applicator, or other qualified pest control specialist, to perform the following services:

1. Develop a pest management program for the vectors identified.
2. Implement the vector management practices.
3. Assist in the development of vector specific awareness training materials for site personnel.
4. Assist the site in distributing these training materials and providing any necessary training activities on vector awareness and control for site personnel.

The site will follow a non-lethal bird abatement program that incorporates the use of pyrotechnic devices, or an alternative bird abatement program, to control birds at the working face areas.

21.0 SITE ACCESS ROADS - §330.153

Waste haulers allowed admittance to the site will be provided access to the active fill area by means of all-weather roads designated for wet-weather operation. To minimize the tracking of mud, all on-site traffic will be required to stay on proper access roads as determined by the Landfill Manager. The major access roads will be asphalt, concrete, and/or gravel surfaced with ditches, as needed. These roads will be constructed as permanent roads and maintained to provide access to the active fill area. Tracked mud and associated debris at the entrance of the landfill and on the public roadway will be removed at least once per day on days when mud and associated debris are being tracked onto the public roadway to the extent that mud can be reasonably be associated with landfill operations. Tracked mud on access roads within

the landfill will be removed with on-site grading equipment. Tracked mud on the public access road will be removed by the City of Kerrville Street and Drainage Department.

Dust from on-site and other access roads shall be controlled by a water source and other necessary equipment required for dust control. Litter and other debris on public and on-site access roadways will be picked up at least daily as detailed in Section 17. Access roads will be inspected, at least weekly and regraded if the inspection reveals the presence of depressions, ruts, or potholes.

22.0 SALVAGING AND SCAVENGING - §330.155

Salvaging is defined as "the removal of waste materials from the working face or waste hauling vehicles at the entrance for reuse or recycling." Scavenging is "the uncontrolled and unauthorized removal of materials at any point in the solid waste management system."

The City of Kerrville Landfill will direct customers to take white goods to the designated collection area for recycling. Salvaged white goods will be managed in accordance with Section 18 for large items.

Scavenging will be strictly prohibited at all times. Spotters (Equipment Operators) will monitor the active area to prevent scavenging. If scavenging is noted, the offender will be informed that scavenging is not allowed and directed to return the waste for disposal.

23.0 ENDANGERED SPECIES PROTECTION - §330.157

Neither the facility nor the operations of the facility will result in the destruction or adverse modification of the critical habitat of endangered or threatened species, or cause or contribute to the taking of any endangered or threatened species. No known endangered or threatened species are known to exist in the immediate vicinity of the site. Subcontractors will be informed of these same goals and of the recommendations set forth by Texas Parks and Wildlife.

24.0 LANDFILL GAS CONTROL - §330.159

Landfill gas collection and control procedures are specified in Part III, Attachment 12 of the permit amendment application for this facility, as modified and amended, and are incorporated herein by reference. Reports and submittals related to landfill gas management will be prepared, recorded, included in the operating record, and submitted to the TCEQ in accordance with Attachment 12.

25.0 OIL, GAS, AND WATER WELLS - §330.161

The Landfill Manager will immediately provide written notification to the Executive Director of the TCEQ of the location of any and all existing or abandoned water wells situated within the site upon such discovery during the course of site development and facility operation. The Landfill Manager will, within 30 days of such discovery, provide the Executive Director written certification that all such wells have been capped, plugged, and closed in accordance with all applicable rules and regulations of the Commission or other state agency. As of the date of this SOP, there are no water wells used for supply at the facility.

The Landfill Manager will immediately provide written notification to the Executive Director of the location of any and all existing or abandoned on-site crude oil or natural gas wells, or other

wells associated with mineral recovery. The Landfill Manager shall provide the Executive Director with written certification that all such wells have been properly capped, plugged, and closed in accordance with all applicable rules and regulations of the Railroad Commission of Texas. Any water or other type of wells under the jurisdiction of the TCEQ shall be plugged in accordance with all applicable TCEQ requirements and additional requirements imposed by the Executive Director. A copy of the well plugging report, required to be submitted to the appropriate state agency, shall also be submitted to the Executive Director within 30 days after the well has been plugged.

26.0 WASTE COMPACTION - §330.163

Waste will be compacted to minimize future consolidation and settlement and provide for the proper application of intermediate and final cover. Waste compaction also aids fire protection and litter control. Vehicles will be tipped as close as possible to the area where the waste will be compacted to minimize the distance that waste must be moved. Waste loads will be spread into layers compacted by repeated passes of suitable compaction equipment. The typical waste compaction layer will be approximately three feet, but this will vary depending upon the waste characteristics. The typical daily waste lift thickness is approximately 10 feet thick, and composed of multiple layers of compacted waste. Lift thicknesses will vary depending on operating conditions such as filling on a slope versus filling on a flat area. Each lift of waste will receive several passes by waste compaction equipment. The working face continually moves as waste is deposited in lifts. The working face will be attended during operating hours to direct waste hauling traffic and manage incoming waste.

In order to protect the integrity of the underlying composite liner system, special care and precautions will be exercised during placement of the first lift of waste over the leachate collection system and protective cover layer. Compaction equipment will not operate directly on top of the protective cover layer. Such compaction equipment will be allowed to operate after a minimum of 10 feet thick of loose waste has been placed over the protective cover soil.

27.0 LANDFILL COVER - §330.165

27.1 Daily Cover

In order to prevent fly and rodent attraction, to control windblown debris and odors, to reduce the possibility of fire, and to improve the operation of the site, the Landfill Manager will insure that a minimum of six inches "daily" cover soil, or approved equivalent, is placed and compacted over all exposed waste at the end of each working day.

The daily cover will consist of at least 6 inches of well-compacted earthen material. Scrapers, or other equipment, will be used to transport cover material to the active face. A bulldozer or compactor will spread the cover soil to adequately cover exposed waste at the active face with a minimum of 6 inches of cover. Nominal compaction will be provided by the tracks on the bulldozer or compactor to reduce voids. Daily cover soil must be clean and not previously mixed with garbage, rubbish, or other solid waste materials.

Daily cover may be applied during the day as waste placement is in progress, but must be applied completion of daily waste acceptance, to assure complete covering of the active face at the end of each day of operations. As the waste lift is constructed and

the active face moves, exposed waste may be covered with soil to maintain a smaller working face. A smaller working face minimizes the potential for windblown waste and litter and odors.

27.2 Intermediate Cover

The maximum amount of time a waste lift with only daily cover can be inactive without intermediate cover is 180 days. By the end of 180 days, the waste lift must receive either additional waste (with required daily cover) or the installation of intermediate cover. Intermediate cover must consist of at least 12 inches of compacted, clean earthen material that has not been previously mixed with garbage, rubbish, or other solid waste materials. This earthen material must be capable of sustaining native plant growth. The 12 inches of compacted, clean material may include the previously placed 6 inches of daily cover material. 12 inches of compacted, clean material may also be applied to serve as both daily and intermediate covers.

Areas with intermediate cover, which are not anticipated to be disturbed for six months, will be seeded with a grass seed mixture suitable to the season. The grass seed mixture will be applied to the intermediate cover area as soon as practical. The establishment of grass is desirable to reduce erosion, which helps to maintain the cover's integrity and improve the aesthetic appearance of the landfill, and aid in sediment control. Intermediate cover must be inspected at least weekly to verify the integrity of the cover material. Intermediate cover shall be graded to prevent ponding of water. Any erosion shall be promptly repaired by restoring the cover material, grading, compacting, and seeding it, as necessary.

27.3 Alternative Daily Cover Material (ADCM)

The City has previously received authorization to use tarps, shredded wood, or tire chips as an alternative to daily cover. The following describes the method and materials which may be used as daily cover in lieu of soil. This plan addresses the usage of the following materials as ADCM:

1. Tarps
2. Ground woody waste
3. Compost
4. Tire pieces/chips

When ground wood waste, compost, and tire pieces/chips are used as ADCM, the material will be applied to create a layer that is at least 6 inches thick. When a tarp is used, the thickness of ADCM will be the thickness of the tarp. ADCMs should be used in such a manner as to minimize the potential for ponding of water on the top of the ADCM. These ADCMs have proven their usefulness and success in limiting vector access to waste materials, reduction in odors from the waste, and control of windborne litter and waste. ADCMs have been used successfully at the City of Kerrville Landfill since 1999.

ADCM will only be used when the landfill will open again within 24 hours of the application of the ADCM. ADCM will not be used as intermediate cover.

27.3.1 ADCM Products and Operational Methods

1. Tarps

Products: 60 mil high density polyethylene (HDPE) tarps have been used successfully at the landfill. The actual material and thickness may vary provided a material which sheds water, limits vector access, and contains windblown litter is used.

Operation Methods: At the end of the day, the size of the active area will be limited to the size that may be covered with the tarp. The tarp will be pulled into place using onsite equipment or personnel. Damage such as tears or rips will be repaired to the extent practical and necessary to maintain the integrity of the cover system. Tarps will be pulled over the active area at the end of the working day. Depending on anticipated wind conditions, the edges of the tarp will be weighted as necessary to prevent movement of the tarp. Material used to weight the edges should not damage the tarp. The tarp will be removed prior to resuming waste placement.

2. Ground Woody Waste

Products: Woody wastes are accepted and stockpiled at the site until a sufficient quantity is accumulated to warrant onsite shredding or grinding. All woody waste that is ground may be used as ADCM.

Operation Methods: Ground woody wastes will be spread in a layer which is at least 6 inches thick. The woody wastes will not require any weighting. Woody waste ADCM does not need to be removed prior to the placement of additional wastes. A portion of the woody waste may be pushed to the side and reused as ADCM if care is exercised to minimize the amount refuse that is mixed in with the woody waste.

3. Compost

Products: Yard waste and municipal wastewater treatment sludge are currently composted at the facility. This finished compost may be used as ADCM.

Operation Methods: Compost will be spread in a layer which is at least 6 inches thick. The compost will not require any weighting. The compost does not need to be removed prior to the placement of additional wastes. A portion of the compost may be pushed to the side and reused as ADCM if care is exercised to minimize the amount of refuse that is mixed in with the woody waste.

4. Tire Pieces/Chips

Products: Used tires which have been shredded into pieces or chips may be used as an ADCM.

Operation Methods: Tire pieces/chips will be spread in a layer which is at least 6 inches thick. The tire pieces/chips will not require any weighting. The tire pieces/chips do not need to be removed prior to the placement of additional wastes. A portion of the compost may be pushed to the side and reused as ADCM if care is exercised to minimize the amount refuse that is mixed in with the tire pieces/chips.

27.3.2 ADCM Chemical Composition

1. Tarps: The HDPE tarps currently in use are inert and are also used as a component of the bottom liner system. Any other tarp materials used will be relatively inert.
2. Ground woody waste: Ground woody waste is a natural product and no deleterious effect to the environment is anticipated.
3. Compost: The finished product from the composting of wastewater treatment plant sludge and ground woody waste is a natural product and no deleterious effect to the environment is anticipated.
4. Tire pieces/chips: Tire pieces/chips are relatively inert consisting of rubber and metal reinforcing wire. No deleterious effect to the environment is anticipated.

27.3.3 ADCM Reporting

A quarterly status report shall be submitted to the executive director describing the effectiveness of the ADCM, any problems that may have occurred, and corrective actions required as a result of any problems. The quarterly report shall be submitted by the end of month following the end of the quarter (for example, the 1st quarter report for the months of January through March is due by the end of April). If no problems occur for four consecutive quarters for a specific ADCM, no further quarterly reports are necessary. As of December 1, 2005, tarps have been used for more than four consecutive quarters without problems. Continued use of tarps will not require reporting.

27.4 Cover Log

A cover application log will be maintained by the Landfill Manager, or his designee, documenting the area over which daily, intermediate, or final cover is applied. For daily and intermediate cover, the log shall specify the date the area was covered (no exposed waste), how it was accomplished, where cover was applied, and the last area that was covered. Areas with cover will be inspected on a daily basis to verify the integrity of the cover material. For final cover, this log shall specify the area covered, the date cover was applied, and the thickness applied that date. Each entry shall be certified by the signature of the on-site supervisor that the work was accomplished as stated in the log. The cover log shall be available for inspection by TCEQ representatives and authorized agents or employees of local governments having jurisdiction.

27.5 Final Cover

Final cover for the landfill shall be in accordance with Part III, Attachment 13: Final Closure Plan of this permit amendment application.

27.6 Erosion of Cover

The landfill cover will be inspected for erosion after each day that measurable rainfall occurs at the site. The inspection will be performed on the next Monday through Friday operating day after the measurable rainfall occurs. Maintenance of the landfill

cover shall be performed to prevent exposure of waste due to erosion. Areas of the cover that require maintenance due to erosion will be identified. Any significant erosion of the landfill cover shall be repaired within five days of detection by restoring the cover material, grading, compacting, and seeding it as applicable.

Areas of final and intermediate cover shall also be inspected for erosion at least monthly during the operating life of the landfill, and final cover shall be inspected at least semiannually during the post-closure care period of the landfill. Any areas requiring maintenance shall be promptly restored during the entire operational life and for the post-closure maintenance period of the facility. These cover erosion inspections shall be documented on the appropriate Daily Inspection Report, the Weekly Inspection Report, or the Monthly Inspection Report. A cover application log shall be maintained and will indicate dates and locations of intermediate cover application, and dates, areas, and thickness of final cover applications, as required. Each entry will be certified by a supervisor's signature, and the log will be available for inspection by TCEQ personnel.

28.0 PONDED WATER - §330.167

28.1 Waste Fill Areas

Site grading and maintenance will minimize the ponding of water over waste fill areas. Waste fill areas with daily, intermediate or final cover will be sloped to prevent ponding. Ponded water which occurs over waste fill areas will be eliminated as quickly as possible, regardless of origin. The area in which the ponding occurred shall be filled in and regraded to drain as soon the surface dries adequately for regrading or adding soil such that the ponding will be eliminated within seven days of the occurrence. Ponded water that has come into contact with waste or leachate will be managed in accordance with the Leachate and Contaminated Water Management Plan found in Part III, Attachment 8.

28.2 Other Areas

Ponded water in areas not over waste, such as in excavations and ditches is not prohibited so long as ponding in other areas does not cause or contribute to nuisance conditions. Ponding in these areas will be monitored to prevent the occurrence of nuisance odors, the breeding of vectors and harborage of vectors. In addition, excavations will be pumped out as necessary to maintain the area as accessible to earth-moving equipment. Ditches will be maintained to perform as designed. Uncontaminated water contained in excavations may be used on site for dust control. During the active life of the facility, inspections to identify potential ponding sites will be conducted as part of the site's routine weekly inspections and after each rainfall event.

29.0 WASTE IN ENCLOSED CONTAINERS AT TYPE IV LANDFILLS - §330.169

This section does not apply to this Type I municipal solid waste landfill.

30.0 SPECIAL WASTE - §330.171

30.1 Disposal of Special Wastes

Special wastes, as defined in §330.3, may be accepted at the facility in accordance with §330.171(c) and (d).

In accordance with §330.171(c), the following special wastes may be accepted at the facility without prior written authorization as follows:

1. Special wastes from health care related facilities which have not been treated in accordance with the procedures specified in 30 TAC 326 (relating to Medical Waste Management) will not be accepted at this facility unless authorized in writing by the executive director of the TCEQ.
2. Dead animals and slaughter-house wastes will be buried and covered with a minimum of 3 feet of other solid waste or a minimum of 2 feet of soil immediately upon receipt.
3. City of Kerrville Landfill is authorized to accept regulated asbestos-containing material (RACM) as defined in the Title 40 CFR Part 61. However, RACM is not accepted for disposal at the present time. If accepted in the future, RACM will be managed in accordance with 30 TAC §330.171(c)(3)(A)-(I), and the City of Kerrville or its operator will provide written notification to the executive director of its intent to accept RACM.

In accordance with permit provisions, regulated asbestos containing material (RACM) designated as a Class 1 non-hazardous industrial waste cannot be accepted for disposal at the City of Kerrville Landfill.

4. Non-regulated asbestos-containing materials (non-RACM) may be accepted for disposal provided the wastes are placed on the active working face and covered. Under no circumstances shall any material containing non-RACM be placed on any surface or roadway that is subject to vehicular traffic or disposed of by any other means by which the material could be crumbled into a friable state.
5. Empty containers, which have been used for pesticides, herbicides, fungicides, or rodenticides, may be accepted and disposed of in accordance with Title 30 TAC §330.171(c)(5).
6. Sludges, grease trap waste, grit trap waste or liquid waste from municipal sources may be accepted if the material has been, or is to be, treated or processed, and the treated/processed material has passed the paint filter test and is certified to contain no free liquid, as prescribed in §330.171(c)(7).

Used oil filters from internal combustion engines will not be intentionally and knowingly accepted for disposal at the City of Kerrville Landfill.

As specified in §330.171(b), requests for approval to accept certain types of special wastes will be submitted to the TCEQ and will include the following:

1. A complete description of the chemical and physical characteristics of each waste and the quantity and rate at which each waste is produced and/or the expected frequency of disposal.
2. An operational plan containing the proposed procedures for handling each waste and listing required protective equipment for operating personnel and onsite emergency equipment.
3. A contingency plan outlining responsibility for containment and cleanup of any accidental spills occurring during the delivery and/or disposal operation. When special wastes are to be disposed of at the City of Kerrville Landfill, a complete generator profile will be required prior to acceptance of the special wastes. This profile includes:
 - a. A list of customers generating these special wastes, identifying each of the generator's special wastes (with supporting chemical analysis, where applicable) for which disposal is being requested.
 - b. A copy of any generator registrations (TCEQ and USEPA) that further identifies the character of those wastes.
 - c. A written declaration by the generator that the waste stream is non-hazardous waste.
 - d. An estimate of the anticipated quantity, rate, and frequency of disposal for each special waste disposal.

Following review of this information, the Landfill Manager or an appropriate City of Kerrville Landfill representative will notify the generator in writing as to which, if any, of the requested wastes will be accepted for disposal. The above-listed information will be maintained in the Site Operating Record. In addition, the generator waste profile will be re-evaluated at a minimum of 3-years to verify consistency with the original approved waste profile. The City of Kerrville Landfill will require the generator to complete a new waste profile as part of this re-evaluation process. The re-evaluated waste profile information will be maintained in the Site Operating Record.

The executive director may revoke an authorization to accept special waste if the owner/operator does not maintain compliance with the rules or conditions imposed to accept the special waste.

A waste discrepancy report or similar documentation will be placed in the Site Operating Record when one or more of the following occurs:

1. A special waste arrives without a waste manifest or required shipping document.
2. An industrial or special waste arrives and the waste material does not match the description on the waste manifest or other shipping document.
3. An industrial or special waste arrives and the waste differs from the approved waste based upon visual inspection or other monitoring required by TCEQ.
4. The volume of the waste is not consistent with the information on the shipping documents.

Scale house attendant(s), or the Landfill Manager, will attempt to resolve any waste discrepancies. If the discrepancy can be resolved, the waste may be accepted and the discrepancy report will be filed with the shipping documents to document the resolution of the discrepancy in the Site Operating Record. If the discrepancy cannot be resolved, the waste shipment will be rejected and a discrepancy report prepared and filed for the rejected waste shipment.

30.2 Liquid Waste Acceptance Plan

Wastes containing liquids are prohibited from disposal in the landfill; however, liquid wastes may be solidified and then be disposed of in the landfill. Liquid wastes which may be accepted for solidification include septic tank wastes, grease trap wastes, grit trap wastes, and oily wastes. Only non-hazardous liquid wastes which contain free liquids as determined by USEPA Method 9095 Paint Filter Liquids Test as published in EPA Publication No. SW-846 may be accepted.

Liquid waste haulers will be directed to the stabilization area where the liquid waste will be emptied into the concrete solidification basin. Liquid wastes will be accumulated until the basin is full or the work day is nearing an end. Liquid waste will not be left in the basin overnight. Stabilization will be accomplished by adding a bulking agent to the liquid in the basin and mixing the two together. A front end loader, or other equipment, will be used to mix the bulking agent. Once the mixing is completed, a sample will be taken and tested for the presence of free liquids using the Paint Filter Liquids Test. A passing test (no free liquids) will result in the solidified waste being disposed of in the active area. A failing test (free liquids present) will result in additional bulking agent or mixing action applied and retested until a passing test is achieved. Stabilization agents may include ground woody waste/brush, sawdust, fly ash, cement kiln dust, and soil.

31.0 DISPOSAL OF INDUSTRIAL WASTES - §330.173

Industrial nonhazardous waste is defined by §330.3 as solid waste resulting from or incidental to any process of industry or manufacturing, or mining or agricultural operations, classified as follows:

1. Class 2 Industrial Solid Waste - any individual solid waste or combination of industrial solid wastes that cannot be described as Class 1 or Class 3, as defined in §335.506 (relating to Class 2 waste determination).
2. Class 3 Industrial Solid Waste - any inert and essentially insoluble industrial solid waste, including materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc. that are not readily decomposable as defined in §335.507 (relating to Class 3 waste determination).

32.0 VISUAL SCREENING OF DEPOSITED WASTE - §330.175

Due to the site's physical location, distance between the landfill's permitted boundary to adjacent landowners and the natural topography of the site and surrounding area, visual screening from waste fill operations is not required. However, visual screening will be provided if the executive director determines that screening is necessary.

33.0 CONTAMINATED WATER DISCHARGE

The Landfill Manager will control and prevent the discharge of contaminated water from the facility. No discharge of contaminated water shall occur without obtaining specific written authorization from the TCEQ prior to the discharge. All water coming in contact with waste, or contaminated soils will be managed in accordance with the procedures in Part III, Attachment 8. Procedures for managing run-on and run-off water for the 25-year, 24-hour storm event are set forth in Part III, Attachment 2: Facility Surface Water Drainage Report of this permit amendment application. The landfill will be operated consistent with § 330.55(b) regarding Water Pollution Control.

34.0 UNDERDRAIN

The design specifications of the underdrain are outlined in Part III, Attachment 5: Liner Quality Control Plan, Appendix B: Underdrain Design.

Site personnel will maintain a log of outflow from the underdrain. The log will consist of rainfall amounts and qualitative outflow from the underdrain. The underdrain outflow will be monitored and recorded on a weekly basis.

APPENDIX A

**Demonstration of Soil Stockpile Size Adequacy and Ability to Transport/Spread within
One Hour**

Demonstration of Soil Stockpile Size Adequacy and Ability to Transport/Spread within One Hour

| | |
|--|---|
| Maximum size of working face: | 20,000 ft ² |
| Depth of soil cover required: | 6" or 0.5 ft |
| Volume of soil required: | 10,000 ft ³ /370 yd ³ |
| Equipment available for soil transport: | 1 - 20 yd ³ dump truck 1 - 20 yd ³ scraper |
| Average hauling distance: | 800 ft |
| Average hauling speed: | 15 mph |
| Time required for round trip: | 2 minute |
| Time required to discharge load: | 1 minute |
| Total hauling cycle time: | 3 minutes |
| Scraper self-loading time: | 1 minute |
| Dump truck loading time (by excavator): | 3 minutes |
| Loads per hour for scraper: | 15 loads |
| <u>Loads per hour for dump truck:</u> | <u>10 loads</u> |
| Total loads per hour: | 25 loads |
| Total soil volume hauled to working face/hour: | 25 loads x 20 yd ³ /load = 500 yd ³ |

500 yd³ > 370 yd³, therefore requirement is met.