

**Escondido Disposal, Inc.**

***ODOR IMPACT MINIMIZATION PLAN***

Submitted to:

County of San Diego  
Department of Environmental Health

Prepared by:



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## Regulatory Authority:

California Code of Regulations Title 14, Section 17863.4 (effective on April 4, 2003) requires an Odor Impact Minimization Plan (OIMP) for all compostable material handling operations and facilities. The following OIMP is being submitted to the County of San Diego, Department of Environmental Health for operations associated with the processing of compostable materials in the Escondido Disposal (EDCO) complex in Escondido, CA.

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## Regulatory Compliance

Escondido Disposal, Inc (EDCO) currently operates under a Solid Waste Facilities Permit (SWFP) issued by the County of San Diego Department of Environmental Health. The permit is for transfer and processing of mixed municipal solid waste (MSW). EDCO currently collects MSW, recyclables and green waste for processing and transfer and offers services to both residential and commercial customers.

EDCO has been providing municipal solid waste, recycling and green waste collection for the City of Escondido since 1995. EDCO and its affiliated facilities, Escondido Resource Recovery and SANCO Recycling, provide trash, recycling and green waste collection services, and operate a transfer station, resource recycling center, a materials recycling facility (MRF), household hazardous waste (HHW) collection program, debris box rental program, and bulky item collection service.

This Odor Impact Minimization Plan (OIMP) is submitted for a proposed anaerobic digestion facility that will receive multi-family co-collected organics, mixed commercial organics, and residential co-collected organics to produce biogas and a solid residual “digestate” which will be further composted at an off-site compost facility after the digestion process.

#### Material Type:

The feedstock for the anaerobic digestion (AD) system will be multi-family organics, mixed commercial organics, and co-collected residential organics within the proposed anaerobic digestion facility being located within existing EDCO complex. The final location and operations will be incorporated into the next SWFP Revision for the facility.

#### Site Operations:

The AD Facility will receive pre and post-consumer food waste from multi-family residential, processed food waste, and co-collected residential green waste and food waste. The AD facility will be located within the EDCO complex. The compostable material feedstock for the AD process will generate biogas in the form of methane, biogenic carbon dioxide and trace amounts of hydrogen sulfide, oxygen, and nitrogen. The resulting digestate from the AD process will be reduced 30% by volume, will be considered compostable and will be transferred within 24 hours to a designated composting facility in the area.

The facility involves a new technology to the United States, which will employ a pre-fabricated, small-scale, dry anaerobic digestion system.

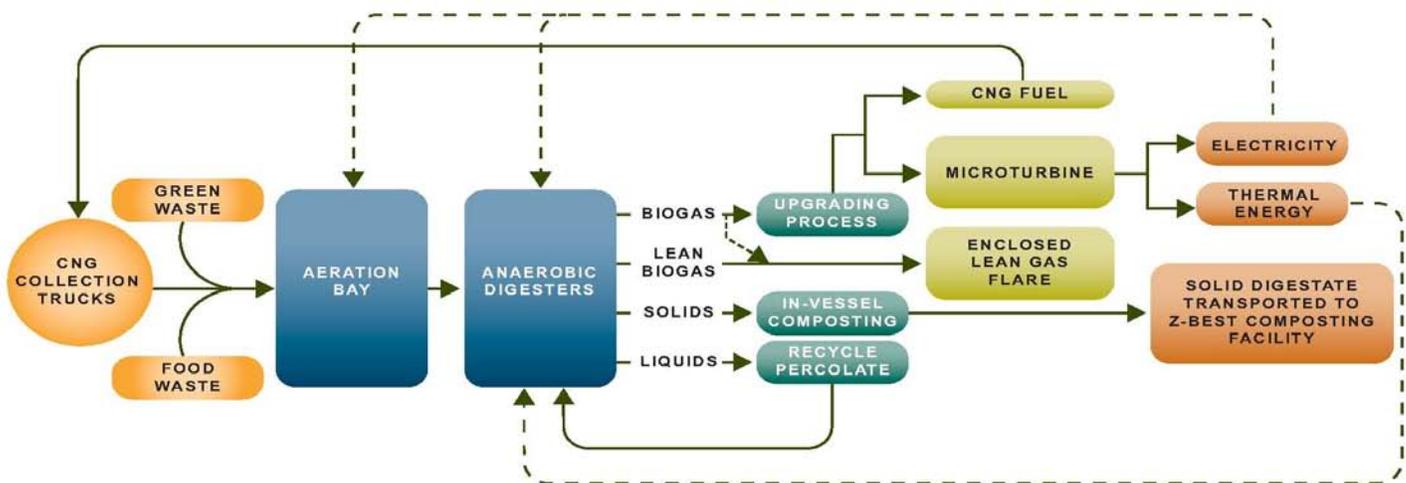
The Facility will receive an average of 120 tons per day (TPD), up to 31,200 tons per year (TPY), of organic material, consisting of food and green waste from residential and commercial sources. The proposed activities consist of processing organics consisting of about 67% food and 33% green waste, which would be anaerobically digested. The resulting biogas may either be used to produce compressed natural gas (CNG) for vehicle fuel or to generate electricity. The amount of CHP that could be generated annually would be enough to support the electricity needs of the entire facility. Alternatively, the amount of CNG that could be generated annually would be up to 400,000 diesel gallon equivalent (DGE) that could be used to supply 40 EDCO collection vehicles or other CNG vehicles in the community.

The overview of system operations is as follows:

- The source-separated organic waste will be delivered to a negative air pressure aeration bay.
- The dry fermentation process begins in which feedstock is inoculated with percolate to begin the digestion process after the blended material is transferred to a sealed digester.
- Electrical power would be supplied by grid-supplied power.
- A biofilter is used to clean the exhaust gases from the aeration bay.
- The biogas rendered from the upgrading process is submitted to a combined heating and power (CHP) process rendering electricity and thermal energy that will feed back into the anaerobic digestion process.
- Alternatively the biogas generated could be purified to pipeline quality CNG using a biogas upgrade for transportation fuel. In the case of vehicle fuel production, thermal energy is provided by an industrial boiler using pipeline natural gas.
- The compression and fueling system is designed to integrate with a biogas conditioning system and provide the transportation fuel.

Figure 1, Operational Process Summary

The compostable feedstock will be delivered by EDCO collection vehicles during operating hours.



The aeration bay could theoretically store up to 6 days of material in case of contingency, but will generally store feedstock for up to 48 hours. The feedstock is mixed within the aeration bay with a front-end loader to achieve an optimal blend of approximately 67% food waste and 33% green waste. Because the dry fermentation process requires that there be structure and porosity in the mixed feedstock to allow percolate to seep through the mass, no pre-processing of the yard debris is necessary. The aeration bay has a rolling door that closes when being loaded and is on negative air for odor control. The blended feedstock is then transferred by a bucket loader to one of the AD units for a period of 21 days. It may take an average of two days to fill an AD unit.

A wheel loader will transport the waste from the aeration bay into one of the digesters to begin the three-part AD process. In the start-up phase, the digesters are sealed and the waste is initially treated aerobically using an in-floor aeration system, which is activated immediately after the digester door is sealed. The aeration system pumps air into the organic waste material which creates aerobic digestion conditions to self-heat the material up to process temperatures. Temperature is measured with thermocouple devices located in each digester. During this phase, no biogas is produced and exhaust air is treated in an acid scrubber which removes ammonia. Following this, the air is treated by a humidifier then finally a biofilter which removes the particulate material, volatile organic compound (VOCs) and odor compounds. When thermophilic temperature is reached (approximately 120 to 130 degrees Fahrenheit [°F]), aeration ceases and anaerobic conditions are created as the aerobic microbes consume the available oxygen in the digester. This initial startup phase of the process lasts for approximately 12 hours; the fermentation phase begins once the start-up phase is complete.

Following the initial aeration of the organic material, thermophilic anaerobic conditions are maintained and percolation begins. This is known as the fermentation phase. Under anaerobic conditions, the organic waste is finely sprayed with conditioned process water containing the thermophilic micro-organisms (“percolate”) that decompose the waste and produce biogas. The percolate is pumped in a closed loop between the digesters and the heated and the insulated percolate tank located beneath the digester area. Percolate is sprinkled on the material on a daily basis for approximately 20 days causing the production of biogas. The percolate is collected in a drainage system, screened for solids in a specially designed weir called a “sandtrap” and gravity fed into the percolate tank where it is recharged with the thermophilic organisms required for digestion. In addition, high quantities of organic acids, which arise during the beginning of the process, are stored and degraded in the percolate tank to ensure proper pH balance.

The required thermophilic process temperature in the digesters is maintained through accurate process control of temperature and flow of percolate in the percolate tank. For this function the percolate tank is externally heated by the burner/boiler system and insulated. The production of biogas begins quickly after percolation. Biogas is primarily composed of approximately 60% methane and 35 to 40 percent carbon dioxide (CO<sub>2</sub>), in addition to small quantities of hydrogen sulfide, oxygen and nitrogen. The biogas is collected in an exhaust port on the back wall of each digester and stored in an external double-membrane biogas storage bladder located on the roof of the AD system. Stored biogas is available for later use in the CNG fuel production or is generated as electricity and thermal energy through the CHP process. The shut-down or “termination phase” of a digester generally commences six (6) hours or less before the digester hatch is opened. The shut-down process is as follows:

- Termination of percolation
- Introduction of fresh air through the in-floor aeration system to terminate anaerobic digestion process and preserve carbon for composting
- Purged air and biogas mixture removed via a dedicated fan located in the mechanical room

Exhausted purge biogas is collected in the biogas collection system until methane content reaches 22 percent at which point the purged biogas is combined with some of the stored biogas and sent to the burner/boiler system. When the methane content of the digester purge air decreases to 1 percent, the burner/boiler operation is terminated and the air is flushed to the acid scrubber, humidifier, and then to the biofilter. The stored biogas will be routed either to CHP or to a biogas conditioning system. Following the termination phase of the process the digestate is removed from the anaerobic digesters and transported immediately to a designated compost facility. Ammonia and odor will be controlled by an acid scrubber, humidifier, and biofilter and negative air flow employed when digester doors are opened.

### Odor Control

In current operations, odors related to breakdown of putrescible waste are mitigated by the regular removal of material and the maintaining of operations within enclosed buildings. The maximum hold time for each waste type is listed in the table below with the hold time for putrescible material such as commercial food waste and co-collected organic materials limited to minimize odor. The proposed AD Facility will be fully enclosed, on negative air, with the emission being treated within a biofilter.

In order to control odor releases, EDCO aims for maximum holding times of less than the allowable 48 hours for all MSW, green waste and/or food waste in accordance with Title 14. Typical operations would process the co-collected green waste and food waste in 24 hours where up to 48 hours is permitted. Typical operations for commercial food waste storage would be 8 hours where up to 48 hours is permitted. Typical operations for the AD facility will blend organics within 24 hours of when material arrives and place it into the digesters within 48 hours of arrival.

#### Storage Time of Materials

<b>Material Type</b>	<b>Typical holding time</b>	<b>Maximum holding time</b>
MSW	24 hours	48 hours
Commercial food waste	8 hours	48 hours
Green Waste	24 hours	48 hours
Co-collected green waste and food waste	24 hours	48 hours

The closest receptors will be operations staff and management who will be onsite during operating hours to monitor the compostable materials handling operations. The facility is located in a zoned industrial area with no residential receptors located within 1000 feet of operations. The nearest residences are located more than 2,500 feet north of the facility and are separated by the I-78 freeway.

The following odor impact minimization controls will be employed for the proposed AD system:

- Enclosed areas for processing of compostable feedstock with negative aeration.
- Dedicated source separated organic waste aeration bay, for short-term storage of received feedstock, which discharges to a biofilter.
- The AD thermophilic process that optimizes methane production, reducing VOCs in the residual digestate material.
- Hydrogen sulfide (H<sub>2</sub>S) removal system post AD and prior to biogas production.
- Siloxane/VOCs removal system and CO<sub>2</sub> removal system.
- Specially designed flare or boiler system to combust biogas with low methane content and potentially recover heat for AD process heating requirements.
- Digestate is shipped off-site to a permitted compost facility.
- An acid scrubber to remove ammonia emissions from AD start-up and shut-down phases.
- Use of a biofilter for additional control of POCs and ammonia before exhausting to the air.

#### Section 17863.4 (b) (1) - Odor Monitoring Protocol

Composting facilities regulated by CalRecycle are required to have an OIMP. The OIMP includes identifying of neighboring odor receptors and a plan to mitigate their exposure to potential odors, a survey of geological considerations, a Complaint Response Protocol and an Odor Complaint Reporting Form. The Complaint Response Protocol describes the procedures to follow upon receiving a complaint. The protocol includes measures to identify the odor and requires appropriate adjustments to storage process controls and facility improvements to reduce odors.

The closest receptors will be staff and management who will be onsite during operating hours to monitor the organic waste handling operation and the loading of material in the aeration bay. The handling of digestate will occur during off-peak hours when the majority of personnel and adjoining neighbors are unable to detect potential odors.

The EDCO complex is surrounded by industrial activities and sales operations, presumably conducting business during standard business hours. Neighboring facilities include a garden supply store, industrial equipment and trailer sales, a photography shop, a ceramics shop,

multiple auto body shops as well as soil and granite sales operations. It is bordered by Washington Avenue and Metcalf Street with a northern border along Mission Avenue.

Our analysis of prevailing wind conditions based on data collected from the McClellan-Palomar Airport site (approximately 11.5 miles west) is that the predominant wind pattern is from the west with occasional southwesterly breezes from May through August, and winds from the east in the month of December.

Each day the operator will evaluate onsite odors and evaluate planned operations for the potential to release objectionable odors. If the operator detects an objectionable onsite odor, s/he will take the following actions:

1. Investigate and determine the likely source of the odor.
2. Determine if onsite management practices could remedy the problem and immediately take steps to remedy the situation.
3. Determine whether or not the odor is traveling beyond the site by patrolling the site perimeter and noting existing wind patterns.
4. Determine whether or not the odor event is significant enough to warrant contacting the adjacent neighbors or the LEA.

In the event of significant odors where a complaint has been filed, the protocol is for the operator to inspect the location of a received complaint. The operator shall attempt to determine if an offensive odor exists and notify the LEA of the complaint and the determination of odor source. In the event that the complaint cannot be verified in this manner, the operator will continue to perform self-monitoring and continue the best management practices (BMPs) described in his operating document. In the event an offensive odor is detected, the operator shall present the LEA with additional or enhanced BMPs to minimize the likelihood of future odor detection.

Front-line EDCO staff handling the in-take of compostable feedstock into the tipping pad will determine before dumping if loads are overly contaminated or odoriferous. These loads may be rejected and re-routed to the transfer station for rapid removal to the landfill. Additionally overly contaminated and/or odoriferous loads entering through public disposal may also be rejected so as to avoid odors and complaints. These loads would be directed to the transfer station and routed to landfill instead.

The practice of moving loads of material during off-peak hours will avoid potential sensitive receptors throughout the day. A wind-sock could be placed to determine wind direction and only move materials during periods of wind that blow away from potential sensitive receptors.

If the control system fails or is ineffective, a misting system may be placed within the enclosure to neutralize odors and negative air pressure will be employed during the transfer of materials.

## Section 17863.4 (b) (2) - Meteorological Data

The EDCO complex is comprised of eight (8) adjoining buildings bordered by Mission and Washington Avenues to the north and south, and Metcalf Street and Rock Springs Road to the west and east. The existing buildings consist of offices, a MRF, a canopy where HHW is received, and a self-haul drop off area. The entrance for both collection vehicles and self-haul customers is located in the southeast corner of complex off of Washington Ave. The complex spans approximately 2 acres. The site for the proposed anaerobic digester would be within one of the existing buildings.

Climatic conditions in San Diego County are not expected to significantly affect the facility operations. The climate is considered semi-arid with mild, sunny weather common throughout the year. Escondido typically experiences warmer summers and cooler winters than other coastal areas in the county due to its inland geography. Temperatures range from a monthly average low of 41.7F in December to a monthly average high of 88.7F in July, reported by the Western Regional Climate Center for the period of May 1, 1979 to December 31, 2005 at the Escondido 2 weather station, 33°07' N, 117°05' W, elevation 660 feet above mean sea level (MSL). Rainfall is seasonal; approximately 91% of the precipitation occurs from November through April. Snowfall is a highly unusual.

The prevailing off-shore wind direction is from the west and occasionally during December, the east. If necessary, the transferring or processing of green and food material will be either curtailed or altered during brief periods of high winds to prevent odors or dust from being transported toward potential receptors.

## Section 17863.4 (b) (3) - Complaint Response Protocol

Complaints may be received by either the operator or the LEA.

- The operator receives and reviews the complaint.
- The operator will go to the location of the complaint to assess if the site may be responsible for the odor.
- The operator documents complaints in the site operations log and on the attached complaint form.
- The operator assesses complaint and responds in the on-site log within 24 hours of receiving the complaint, or 48 hours should the citizen complaint be received on a weekend or holiday.
- The operator implements reasonable recommendations suggested by experts or regulatory agencies. The operator will continue operations utilizing best management practices.

- The operator and complainant (if known and choosing to participate) meet within a reasonable timeframe to assess the original problem and results from implementing the recommendations.
- Results and actions must be documented in the site operations log, which serves as the operation's permanent record.

#### Section 17863.4 (b) (4) - Design Considerations and Procedures to Minimize Odors

##### Design Consideration;

The current compostable material handling operations will occur within an enclosed facility on a concrete pad with limited storage under ambient aeration conditions.

The following specific design measure will be used at the AD facility to reduce potential odors to less than significant during the pre-digestion, digestion, and removing of digestate phases of the process:

- The aeration bay where the feedstock will be received will be enclosed with a roll-up door. When the doors are opened, the building will be placed on a negative air flow, which will draw any potential odors in that will be exhausted through a biofilter.
- The selected dry fermentation technology does not require upfront grinding, sorting, and screening systems. Reduced processing minimizes odors and emissions. The feedstock material will already be source-separated food waste. The selected technology only requires minimal preparation, if any, for the incoming feedstock and would therefore result in less time in the open air where odor emissions could occur.
- EDCO works with generators to limit contamination to ensure that the source-separated organic feedstock does not contain household hazardous waste, glass, metals, or other contamination. EDCO will continually add training, awareness, and feedback to their both residential and commercial customers on the need to source-separate their organic materials.
- The anaerobic digesters where the feedstock will be digested will be enclosed with airtight doors. When the doors are opened to move feedstock, the digester will be placed on a negative air flow, which will draw any potential odors in that will be exhausted through a biofilter.
- Many of the emission generating activities would occur in enclosed buildings subject to negative aeration pressure and designed to capture all emissions generated within the enclosure and draw excess atmospheric air into the enclosure to assure no emissions escape. The ventilation system would then discharge the air to a biofilter for cleaning prior to being emitted to the atmosphere.

- After the digestion process (approximately 21 days), the digestate would be removed from the digesters under negative air flow, resulting in residual gas emissions being captured by the system. The digestate will strategically be moved overnight to ensure sensitive receptors were unable to perceive odors generated during the moving of the digestate.

Biofiltration is a well-known treatment technology that has consistently documented destruction efficiencies of over 90% for volatile organic compounds (VOCs). A pilot-scale experiment conducted at California State University, Fresno, demonstrated a 99% destruction efficiency for VOCs. Tests conducted at the Inland Empire Regional Compost Facility resulted in a measured VOC destruction efficiency of 94%. The South Coast Air Quality Management District (SCAQMD) has published a list of operational biofilters and estimated destruction efficiencies which can be found at:

[http://www.aqmd.gov/rules/doc/r1133/app\\_c\\_biofilter.pdf](http://www.aqmd.gov/rules/doc/r1133/app_c_biofilter.pdf).

Additionally, very high destruction efficiencies for methane and nitrous oxide have been demonstrated. A pilot-scale experiment done at California State University, Fresno, demonstrated 99.7% destruction efficiency for methane and 97.1% for nitrous oxide.

Tests conducted at the University of Texas, Arlington, demonstrated 100% removal efficiency for hydrogen sulfide through a biofilter.

Typical destruction efficiencies for biofilters are:

VOCs:	90%
Ammonia:	80%
Methane:	95%
Nitrous Oxide:	95%
Hydrogen sulfide:	95%

The biofilter will be sized to accommodate the airflow from the aeration vessel and the anaerobic digesters. The biofilter organic media material is typically wood chips; moisture will be maintained to an optimum level to keep the microbes healthy in the filter media.

The biofilter media may need to be replaced every 12 to 18 months, and consists of readily available material from overs generated from EDCO yard waste collections. During the periods of biofilter maintenance, the doors of the anaerobic digesters will remain closed.

**Facility Siting:** The siting of the AD Facility will be away from many sensitive receptors in a fully enclosed facility on the existing EDCO complex.

Proper Drainage: Standing water is a potential source of odors. The operations area will be on a paved surface that is sloped to facilitate drainage and prevent standing water. The paving will be maintained to prevent ponding. General spill control programs and curbing will be in place. The material handling areas are covered by a canopy and protected from storm water. The aeration bay and AD units are all enclosed and protected from storm water.

The loader access area under the canopy to move material from the aeration bay to the AD units will be paved and sloped towards a perimeter grated trench drain to capture liquids that may drip from the digestate or material that may spill on the pavement from loading and unloading. The grated trench drain will be drained to the sanitary sewer for treatment or to the percolate tank.

Personnel training: Personnel will be trained in the proper use of facility equipment. Potential hazards and safety features will be stressed as well as handling procedures to minimize the production of odors, such as leaving roll-up door on the aeration bay open unnecessarily. No employee will be permitted to operate equipment until the employee has demonstrated that he or she is competent to operate that equipment. Annual review and training will ensure continued safe operations of the facility and compliance with regulations will be conducted.

Utility service interruptions:

- Electric and Gas: In the case of electrical generation from biogas, the AD facility would be self-sufficient for power generation; an emergency backup diesel generator may be employed should operational status dictate and the facility would have the option of using utility-provided power. Additionally, thermal energy from the CHP system would be sufficient to heat the percolate In the case of vehicle fuel production; electrical requirements would be met by utility-provided power and thermal energy would be provided by an industrial boiler operating on utility-provided natural gas, and potentially biogas not recovered for fuel production.
- Telephone: the office staff and the key employees on site utilize cellular telephones and/or radios to communicate and coordinate their daily and routine operating practices.

## Section 17863.4 (b) (5) - Operation Considerations and Procedures to Minimize Odors.

Odor Mitigation Measures as part of Operations:

The following measures will be used to reduce potential odors from the AD facility to less than significant during the pre-digestion, digestion, and the moving of digestate phases:

- The aeration bay where the feedstock will be received will be enclosed with a roll-up door. When the doors are opened, the building will be placed on a negative air flow, which will draw any potential odors in and the captured air will be exhausted through a biofilter.

- The anaerobic digesters where the feedstock will be digested will be enclosed with air tight doors. When the doors are opened to move feedstock, the digester will be placed on a negative air flow, which will draw any potential odors in that will be exhausted through a biofilter.
- Many of the emission generating activities associated with the anaerobic digestion process would occur in vessel and subject to negative aeration pressure. The digesters are designed to capture all biogas generated within the enclosure and to store it in a gas bladder for utilization. When the digesters are opened for unloading, the ventilation system draws excess atmospheric air into the enclosure to assure no emissions escape. The ventilation system would then discharge the air to a biofilter for cleaning prior to being emitted to the atmosphere.

#### Section 17863.4 (d) – Annual Review of OIMP

The OIMP will be reviewed annually by the operator, and revised as necessary.

A copy of this OIMP will be kept at the facility's administrative office. The OIMP will be revised within 30 days to reflect significant changes to operations that affect the OIMP, with a copy provided to the LEA, when appropriate.

Today's date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Attachment 1

Control No. \_\_\_\_ - \_\_\_\_ - \_\_\_\_

(year-juris.-#)

## ODOR COMPLAINT RESPONSE LOG

Complaint Received From: \_\_\_\_\_

Name of Complainant: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip code: \_\_\_\_\_

Phone number: (\_\_\_\_) \_\_\_\_\_

Facility/Operation Name: \_\_\_\_\_

SWIS# (if applicable): \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Facility Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip code: \_\_\_\_\_

Date Complaint Received (if applicable): \_\_\_\_/\_\_\_\_/\_\_\_\_

Date(s) and Time(s) Alleged Odors Detected: \_\_\_\_/\_\_\_\_/\_\_\_\_ \_\_\_\_:\_\_\_\_AM/PM

Detected by: \_\_\_\_\_

Description of Alleged Odor(s) and/or Attachments \_\_\_\_\_

\_\_\_\_\_

Name of LEA Representative Contacted (if applicable) \_\_\_\_\_

Date/time LEA Notified: \_\_\_\_/\_\_\_\_/\_\_\_\_ \_\_\_\_:\_\_\_\_AM/PM

Inspection performed by LEA? \_\_\_\_\_ Other Agencies Present at Inspection? \_\_\_\_\_

\_\_\_\_\_

Inspection Resolution/Results (include date) \_\_\_\_\_

Follow-up:

To Complainant? \_\_\_\_\_

To Other Agencies? \_\_\_\_\_

Form Completed By: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Attach Copy of Complaints or Referral From Other Agencies.

## **ODOR COMPLAINT RESPONSE** (at Composting Operations and Facilities)

To All Local Enforcement Agencies

### Purpose

This advisory presents strategies for responding to odor complaints at composting operations or facilities. It is a follow-up to LEA Advisory # 32 which focused on the jurisdiction over odor complaints by the Enforcement Agencies' (EA) and the Air Pollution Control Districts' and/or Air Quality Management District (Air District).

To summarize from Advisory # 32, the EA is lead for enforcement regarding odor complaints at composting operations and facilities. The California Environmental Protection Agency recommends an approach whereby the EAs and Air Districts develop working relationships to investigate and coordinate inspections regarding odor complaints. Any composting activities which fall outside of California Integrated Waste Management Board (CIWMB) regulatory requirements pursuant to Title 14, California Code of Regulations (14 CCR), Section 17855 et seq., are under the jurisdiction of the Air District. However, pursuant to 14 CCR, Section 18102, EAs may investigate and take enforcement actions at these activities to verify that they qualify as an excluded operation. EAs may use local nuisance and code enforcement laws, Health and Safety, Penal, or Civil Codes, or refer the odor complaint to the Air District.

### Odor Complaint Response

Odors are excessive at a composting operation or facility if they are detected at objectionable levels by the inspector at a property boundary bordered by residences or other sensitive receptors. Please consider these suggestions when developing an EA/Air District compliance and enforcement strategy for responding to complaints.

- Mutual Understanding of Jurisdictional Areas
- Complaint Referral Process
- Documentation of Odor Complaint Response Including Follow-ups
- Solving the Problem

### Mutual Understanding of Jurisdictional Areas

EAs are encouraged to prepare for their local Air District a list of all known compost operations, facilities and excluded composting activities so that the Air Districts may either refer a composting odor complaint to the EA or investigate the complaint. A list of all known composting facilities and operations shared within the EA jurisdiction will help to clarify the responsible enforcement agency.

### Complaint Referral Process

14 CCR. Section 17867 (a) (2) requires that composting facilities and operations be conducted in a manner that minimizes odor impacts.

This section allows flexibility in determining the appropriate way of dealing with odor impacts at a compost facility or operation. If the EA has received an odor complaint and it is determined to have originated from an excluded activity, the EA should refer the complaint to the local Air District.

If the odor is determined to be derived from a composting facility or operation, the EA may elect to contact the local Air District when conducting an inspection of the site. Air Districts have knowledge of odor mitigation techniques that have proven successful. Some Air Districts may also have the ability to provide the EA with laboratory analysis of odorous air emissions.

### Documentation of Odor Complaint Response Including Follow-ups

To assist in maintaining an effective enforcement program for handling odor complaints, EAs may wish to log all odor complaints and referrals received since October 16, 1995. A sample odor complaint response log is included as Attachment 1 of this advisory. EAs utilizing this log should note five unique components to the log:

- 1) Tracking of Air District odor complaint referrals, and/or a
- 2) Record of odor complaint in which the complainant contacted the EA directly,
- 3) Record of whether a multi-agency inspection was performed.
- 4) Record of inspection resolution and results.
- 5) Record of inspection follow-ups sent to the complainant and other agencies.

### Solving the Problem

Working with the operator in a manner that both achieves compliance and enhances the ability of the facility or operation to process and market organic materials is key to the success of any strategy that is developed for odor complaints. The operator knows the operation and can usually identify changes which would help to reduce odor impacts. Resolution of the problem should be documented. For specific odor mitigation methods, see the selected references included as Attachment 2 of this Advisory.

### Summary

Although the primary responsibility to respond to odor complaints from compost operations or facilities lies with the EA, and the responsibility of addressing odor complaints at excluded facilities lies with the Air Districts, this does not preclude either Agency from entering into working relationships to investigate complaints, analyze the source of the complaint, make determinations, and formulate coordinated compliance and enforcement strategies to ensure that performance standards are met. Strategies for enforcement include knowledge of mitigating methods and working with the operator and the local Air District. EAs are encouraged to utilize reference materials developed by industry to aid in mitigating odor problems at compost facilities.