STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
81 Higuera Street, Suite 2000
San Luis Obispo, CA 93401-5427

WASTE DISCHARGE REQUIREMENTS ORDER NO. 99-11

Waste Discharger Identification No. 3 429812001

For

ENGEL & GRAY INC. AND THE CITY OF SANTA MARIA
ENGEL & GRAY REGIONAL COMPOSTING FACILITY
Santa Barbara County

The California Regional Water Quality Control Board, Central Coast Region (hereafter Board) finds that:

1. Engel & Gray Inc. submitted a Report of Waste Discharge on July 25, 1995 (amended December 13, 1995 and November 21, 1996) in accordance with Section 13260 of the California Water Code. The report was filed for authorization to operate the Engel & Gray Regional Composting Facility (hereafter "Composting Facility"). The Composting Facility will be operated on property owned by the City of Santa Maria. Engel & Gray Inc. and the City of Santa Maria are here after jointly referred to as "Discharger".

2. The 40 acre Composting Facility is located 3 miles west of the City of Santa Maria, on the east side of Ray Road, on-half mile south of State Highway 166 as shown on **Attachment I** included as part of this Order. The site is comprised of Santa Barbara County Assessor's Parcels Numbered 113-120--017 and 113-120-021.

3. This Waste Discharge Requirements Order (Order) incorporates criteria currently applicable to solid waste established in California Code of Regulations, Title 27, Division 2, *Solid Waste* (Title 27), effective July 18, 1997.

4. The U. S. Environmental Protection Agency (U.S. EPA) has promulgated 40 CFR 503 for direct land application of sewage sludge as a soil amendment. These regulations establish ceiling concentrations for metals and pathogens and vector attraction reduction standards; management criteria for the protection of water quality and public health; and annual and cumulative discharge limitations of persistent pollutants, such as heavy metals, to land for the protection of livestock, crop, and human health and water quality protection. The requirements of 40 CFR 503 are based on a risk-based evaluation using 14 different pathways. Sewage sludge with metals concentration exceeding the limits of 40 CFR Part 503 is not accepted at the Composting Facility.

5. The National Research Council established a committee to review the methods and procedures used by the U.S. EPA while forming the basis of 40 CFR 503. The National Research Council's members are drawn from the National Academy of Sciences, National Academy of Engineering, and the Institute of Medicine. After a three-year study (starting in 1993), the committee made some recommendations for improvement but also stated: "Established numerical limits on concentration levels of pollutants added to cropland by sludge are adequate to assure the safety of crops

produced for human consumption." Applicable committee recommendations, including monitoring for organic chemicals and excluding the use of salmonella testing, are considered in this Order.

6. Due to the extensive work done by the U. S. EPA, the Board used Code of Federal Regulations, Title 40 (40 CFR), Part 503, *Standards for the Use or Disposal of Sewage Sludge,* as guidelines in establishing this Order. The Board is not the implementing agency for 40 CFR 503. Compliance with this Order does not constitute compliance with 40 CFR 503.

7. The methods for pathogen control and vector attraction reduction stipulated by 40 CFR Part 503 include composting processes. The Discharger's co-composting method (sewage sludge with agricultural wastes and residential green wastes) meets the federal sludge composting standards for pathogen control and vector attraction reduction.

8. Land uses within 1/4 mile of the site include a wastewater treatment facility and agriculture.

9. The 40-acre site is located within the Santa Maria Valley and Santa Maria Hydrologic Unit. Mean site surface elevation is 155 feet. Topography at the site is nearly flat; a five-percent east to west fall is experience across the project site.

10. The Santa Maria Valley is characterized by a broad alluvial plain that tapers gradually inland to the east. Unconsolidated alluvial gravel, sand, silts, and clay of the Holocene age is estimated to be 3000 feet thick near the Compost Facility.

11. The Discharger's data demonstrate natural geologic materials between the base of the Composting Facility and ground water reasonably ensure that no degradation of beneficial uses of ground water beneath or adjacent to the Composting Facility will occur.

12. Compaction and permeability testing at the site indicate permeability rates of 2.3×10^{-6} cm per sec (~ 2.5 feet per year) are achievable when soils are compacted to 95% of maximum compacted density.

13. Average depth to ground water at the site is 90 feet. Ground water flow direction in the area is to the west-southwest.

14. There are numerous supply wells within 1 mile of the Composting Facility; most provide water for irrigation purposes. There are no site-specific ground water monitoring wells.

15. The majority of the pollutant load treated at wastewater treatment facilities is organic matter. This material is removed through flotation and/or settling. The settled material is then further treated to stabilize organic matter. Metals and organic chemicals from domestic and industrial sources are also present in the waste stream at the treatment facility. The fate of these constituents during treatment is variable. Some are removed and destroyed through physical and biological processes at the treatment facility. Some pass through the treatment facilities unchanged and are subsequently discharged from the treatment process. Others may concentrate in the sewage sludge. For these reasons, testing of sewage sludge is necessary prior to their being classified as biosolids.

16. Sludge proposed to be processed at the Composting Facility is from regional waste water treatment plants regulated by Orders adopted by this or other Regional Water Quality Control Boards - Including but not limited to; City of Santa Maria WWTP, City of Guadalupe WWTP, Pismo Beach WWTP, County of Santa Barbara Laguna Sanitation District WWTP.

17. Biosolids is a source of organic solids, nitrogen, phosphorus, and micronutrients. These materials are beneficial to agriculture, silviculture, horticulture, and land reclamation activities and improve agricultural productivity. More specifically, the benefits

derived from biosolids used as a soil amendment are as follows:

a. Nitrogen is a basic nutrient for plant growth. In biosolids, nitrogen is present in the forms of ammonia, nitrates, and organic nitrogen at concentrations from two to ten percent by weight.

b. Phosphorus is a basic nutrient for plant growth and is present in all biosolids in varying concentrations.

c. Micronutrients, including a variety of salts and metals, are necessary for plant growth and are present in biosolids in varying amounts.

d. The addition of biosolids to soils can also be beneficial by enhancing soil structure, increasing water retention capability, promoting soil aggregation and reducing the bulk density.

e. Organic matter helps soils retain water. Additional water retention can reduce the need for frequent water applications and facilitate water conservation.

18. Biosolids have the following characteristics which can create water quality and public health problems if improperly treated, managed, and regulated during use as a soil amendment:

a. Pathogens (disease causing organisms) can be present. Unless the biosolids are specially treated or disinfected to destroy pathogens, significant concentrations of bacteria, virus, and parasites will be present. Public health problems can be prevented with appropriate control over public access to composting areas. Buffer zones around water supply wells, surface water drainage courses, and public areas will prevent transmission of pathogens to the public.

b. Heavy metals will be present in biosolids and may be present in other feedstock (i.e., greenwaste). If heavy metals are over-applied to a field, they can cause ground water pollution, toxicity to plants, cause toxicity/adverse affects to soil microorganisms, or buildup in the plant tissues. A buildup of metals in plant tissues may allow transmission of the metals into the food chain, which can cause toxicity/adverse affects to animals eating plants or animals containing elevated metals. Future cropping or other land uses could be restricted. However, the concentration limits set for the incoming biosolids is based on preventing any such problems even when the material itself is directly applied to land. Heavy metals do not readily migrate in typical compost environments (non-acidic, highly organic).

c. Excess nitrogen in soil will eventually be converted to the nitrate form and can migrate to ground water. Excess nitrate in the ground water can result in the exceedance of drinking water standards and a public health threat. Composting is a nitrogen fixing process that is not expected to cause nitrogen levels in soil at the composting facility to increase.

d. Odor and insect nuisances can be caused if the biosolids have not been adequately treated prior to application or if wet biosolids are not directly applied to active compost piles. Compliance with State and Federal standards for stabilization of the biosolids will minimize the potential for odors and insect nuisances. Proper management at the Composting Facility will prevent odor or insect nuisances. Properly stabilized biosolids will generate limited, transient odors in the immediate vicinity of the Composting Facility.

e. Discharge of organic material, metals and pathogens to surface waters can affect water quality. These affects can be prevented by controlling runoff, avoiding wet weather application, and incorporating the biosolids with other feedstock soon after receipt. The water

quality threat of organic matter of biosolids origin affecting surface water is no greater than for a similar quantity of other organic soil amendments, such as steer manure.

19. Raw composting material (feedstock) is delivered to the site by truck. Feedstocks are mixed to achieve optimum carbon to nitrogen ratios and then windrowed.

20. The compost windrows are mechanically aerated at specified intervals. Temperature and moisture content are monitored and each windrow is treated at a minimum 55°C (131°F) for a period of 15 consecutive days. The composting period is at least 60 days.

21. The Composting Facility has a maximum physical capacity of 100,000 cubic yards of actively composting material. On a 90 day composting cycle the facility's monthly production capacity is 33,333 cubic yards (400,000 cubic yards annually). The maximum flow rate for incoming feedstock is 17,400 tons per month

22. Sludge, agricultural byproducts, and yard residues are nonhazardous, decomposable residuals from agricultural, commercial, and residential sources, and municipal wastewater treatment facilities, that through composting treatment are recycled for use as a soil amendment.

23. The terms "waste" or "wastes" as used herein refer to residual wastes that may be produced by composting operations. Wastes may include leachate and fugitive raw material and compost. Proper construction and management of the recycling operation and climatic conditions should minimize such residual waste generation. Classification of waste is based upon the parent material, which is classified as nonhazardous solid waste, using the criteria set forth in California Code of Regulations Title 27, Division 2, Solid Waste.

24. This Order regulates the discharge of "wastes", as defined above, and the prevention of nuisances that may occur as the result of the treatment of wastes. This Order does not regulate other aspects of the composting operation, such as the quality or application of the compost product.

25. The Composting Facility and all of Santa Maria Valley is protected from flooding by levees that contain the Santa Maria River. According to the U.S. Department of Housing and Urban Development Flood Insurance Rate Map, the site is in Zone C, an area of minimal flooding. Mean annual precipitation for the area is approximately 13 inches.

26. Surface water run on/off at the site is controlled by a series of berms that effectively separate the site from adjacent land. The site has experienced no surface water run-on or run-off during the past two years.

27. Internally, the site is hydraulically split in half. Surface water from each sub-area is directed to a grass lined collection swale that drains to one of two connected retention/percolation basins at the west end of the site.

28. The sites grass lined collection swales are designed to act as biofilters to mitigate nitrogen levels in run off from the compost windrows. Biofilters are designated Best Management Practices for industrial and commercial storm water management systems in the *California Storm Water Best Management Practice Handbook,* March 1993.

29. This Order implements the Water Quality Control Plan, Central Coast Basin (Basin Plan). The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State Waters.

30. Present and anticipated beneficial uses of ground water in the vicinity of the Composting Facility include:

- Agricultural water supply.
- Municipal and domestic supply.
- Industrial use.

31. Groundwater quality in the immediate area of the site does not meet the Santa Maria Hydrologic Sub-area *Median Ground Water Objectives* established by the Basin Plan. The following table presents average water quality information derived from eight sampling events performed at an area well between April 1993 and October 1996.

Constituent	Area Well (mg/l)	Basin Obj. (mg/l)
TDS	1568	1000
Chloride	94	90
Sulfate	648	510
Boron	.3	.2
Sodium	128	105
Nitrate (as N)	23	8

32. It is assumed that ground water quality in the area has been adversely impacted by years of agricultural practices and urban development.

Statements of Regulation

33. This Order implements the prescriptive standards and performance goals of Title 27, as adopted by the State Water Resources Control Board on July 18, 1997.

34. Composting (as it relates to a discharge of waste) is a privilege, not a right, and authorization to discharge waste is conditioned upon the discharge complying with provisions of Division 7 of the California Water Code and with any more stringent limitations necessary to implement the Basin Plan, to protect beneficial uses, and to prevent nuisance. Compliance with this Order should assure this and mitigate any potential adverse changes in water quality due to the discharge.

35. A Conditional Negative Declaration for this project was approved by the City of Santa Maria on June 20, 1995, in accordance with the California Environmental Quality Act (Public Resources Code, Section 21000, et. seq.) and the California Code of Regulations. The Negative Declaration determined there are no significant adverse environmental effects. The City of Santa Maria has included this facility as a component of their biosolids management program as contained in their Wastewater Master Plan.

36. In addition to this Order, the site is permitted to operate as a Composting Facility by the Santa Barbara County Environmental Health Services Division in coordination with the California Integrated Waste Management Board. On September 18, 1995, these agencies issued Registration Permit No. 42-AA-0053 for operation of this Composting Facility.

Board Dates

37. On **January 13, 1999**, the Board notified the Discharger and interested agencies and persons of its intention to issue waste discharge requirements for this discharge and has provided them with a copy of the proposed Order and an opportunity to submit written comments.

38. After considering all comments pertaining to this discharge, during a public hearing on **April 9, 1999**, this Order was found consistent with the above findings.

IT IS HEREBY ORDERED pursuant to authority in Section 13263 of the California Water Code, Engel & Gray Inc. and the City of Santa Maria, their agents, successors, and assigns may operate the Engel & Gray Regional Composting Facility, providing compliance is maintained with the following:

Throughout this Order regulations are directly referenced or footnotes are listed to indicate the source of requirements specified. Footnotes are as follows:

a CCR, Title 27, Division 2 (Title 27)
b Water Quality Control Plan, Central Coast Basin (Basin Plan)
c California Water Code

A. DISCHARGE PROHIBITIONS

1. Composting outside the "Designated Compost Area", as identified in **Attachment II**, is prohibited.

2. Composting, stockpiling, storing, or other wise accepting raw sewage or septage, "hazardous" waste or "designated waste" is prohibited. For the purposes of this Order, the term "hazardous" waste is as defined in CCR, Title 22, Division 4.5, Chapter 11, the term "designated waste" is as defined in California Water Code §13173. Septage includes any waste material removed from a septic tank, cesspool, portable toilet, or similar wastewater-handling device, which has not passed through a Board permitted wastewater treatment facility.[a,c]

3. Acceptance of sludge that exceeds the metal concentration limits set forth in CFR, Title 40, Part 503.13, Table 3 is prohibited.

TABLE 3 OF § 503.13.
POLLUTANT CONCENTRATIONS

Pollutant	Concentration (mg/kg dry)
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800

Note: *This table is included for convenience. Revisions to Table 3 of CFR, Part 503 is applicable to this Order.*

4. Discharge of sludge, sludge byproducts, feedstock, or compost, into surface drainage courses, surface waters, or standing water is prohibited.[b]

B. DISCHARGE SPECIFICATIONS

1. The volume of feedstock, and actively composting material shall not exceed 100,000 cubic yards at any one time. The volume of finished compost shall not exceed 100,000 cubic yards at any one time.

2. Composting shall neither cause nor contribute to a condition of pollution or nuisance to waters of the State, or in any way cause unreasonable impairment of State waters' beneficial uses.[a,c]

3. Drainage from the Composting Facility shall be contained on the property.

4. Composting Facility's precipitation control facilities shall be designed, constructed and maintained to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, washout, and over-topping due to a 24 hour precipitation event with a predicted frequency of once in 100 years.[a]

5. Feedstock storage or composting shall not occur within 50 feet of the property line or drainage way and not within 150 feet of a domestic well or 50 feet of a non-domestic well.

6. Liquid feedstock shall not be accepted during rain event or within 48 hours of a 25% or higher forecasted chance of rain.

7. Liquid feedstock shall be applied directly to active windrows.

8. Incoming feedstock that are unstable in nature and may cause an odor or water quality threat (e.g. sludge, manure) shall be processed and windrowed within seven days of receipt.

9. All biosolids feedstock shall comply with the applicable pathogen reduction standards listed in 40 CFR 503.32.

10. All biosolids feedstock shall comply with one of the applicable vector attraction reduction requirements specified in 40 CFR 503.33.

11. Soil compaction in the facility's receiving and composting areas must be maintained at minimum 95 per cent relative compaction.

C. GROUND WATER LIMITATIONS

1. Composting shall not cause a significant increase of any mineral constituent or chemical concentration in underlying groundwater.[b,c]

D. PROVISIONS

1. The Discharger shall, in a timely manner, remove and relocate any wastes or materials discharged or placed at this facility in violation of this Order.

2. The Discharger shall comply with attached Monitoring and Reporting Program (Monitoring Program) No. 99-11, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.

3. The Discharger shall maintain a copy of this Order at the Composting Facility and make it available at all times to regulatory agency personnel and to essential facility operating personnel, who shall be familiar with its contents.

4. The composting operation shall comply with California Code of Regulation, Title 27, Division 2 and Code of Federal Regulations, Title 40, Part 503, Standards for Disposal of Sewage Sludge, for the production of compost and all other applicable State and Federal Composting regulations whether or not they are specifically referred to in this Order.

5. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the Discharger from his liability under Federal, State or local laws, nor do they create a vested right for the Discharger to continue the waste discharge.

6. Provisions of these WDRs are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected.

7. The Discharger shall be responsible for accurate feedstock characterization.[a]

8. The Discharger, at all times, shall properly operate and maintain all facilities and treatment systems (and related appurtenances) which are installed or used by the Discharger to achieve compliance with conditions of this General Order. Proper operation and maintenance includes but is not limited to; effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures.

9. The Discharger shall have a continuing responsibility to assure protection of usable waters, from residual wastes generated by the Composting Facility.

10. The Discharger shall allow the RWQCB or an authorized representative upon the presentation of credentials to:

    a. Enter the Composting Facility;
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
    c. Inspect at reasonable times any equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
    d. Sample or monitor at reasonable times, any substances or parameters at any location for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code.

11. Unless otherwise permitted by the RWQCB's Executive Officer, all analyses required by this Order shall be conducted at a laboratory certified for such analyses by the California Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR Part 136) promulgated by the U. S. EPA.

12. The Discharger shall report any noncompliance that may endanger health or the environment. Any such information shall be provided verbally to the RWQCB's Executive Officer within 24 hours from the

time the Discharger becomes aware of the circumstances. A written submission shall also be provided within seven days of the time the Discharger becomes aware of the circumstances. The written submission shall contain (a) a description of the noncompliance and its cause; (b) the period of noncompliance, including exact dates and times; and (c) if the noncompliance has not been corrected, the anticipated time the noncompliance is expected to continue and steps being taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance with a time schedule that includes milestone dates. The RWQCB Executive Officer or an authorized representative may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

13. Ninety days prior to the cessation of composting operations at the facility, the Discharger shall submit a work plan for assessing the extent, if any, of contamination of natural geologic materials and ground water. The plan is subject to approval of the Executive Officer. Within 120 days following work plan approval, the Discharger shall submit an engineering report presenting results of the contamination assessment. The work plan, contamination assessment, and engineering report must be prepared by a California registered civil engineer or certified engineering geologist.

14. Any person signing a report makes the following certification, whether it is expressed or implied:

"I certify under penalty of perjury I have personally examined and am familiar with the information submitted in this document and all attachments and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

15. Except for data determined to be confidential under Section 13267 (b) of the California Water Code, all reports prepared in accordance with this Order shall be available for public inspection at the Board office.[c]

16. In case of any change in ownership or responsibility of this Composting Facility, the Discharger shall notify the Board in writing of the proposed change. This notification shall be given prior to the effective date of the change and shall include a statement by the new Discharger that facility operation will be in compliance with applicable State and Federal regulations and the existing Waste Discharge Requirements.

17. Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267 of the California Water Code, or falsifying any information provided therein, is guilty of a misdemeanor.[c]

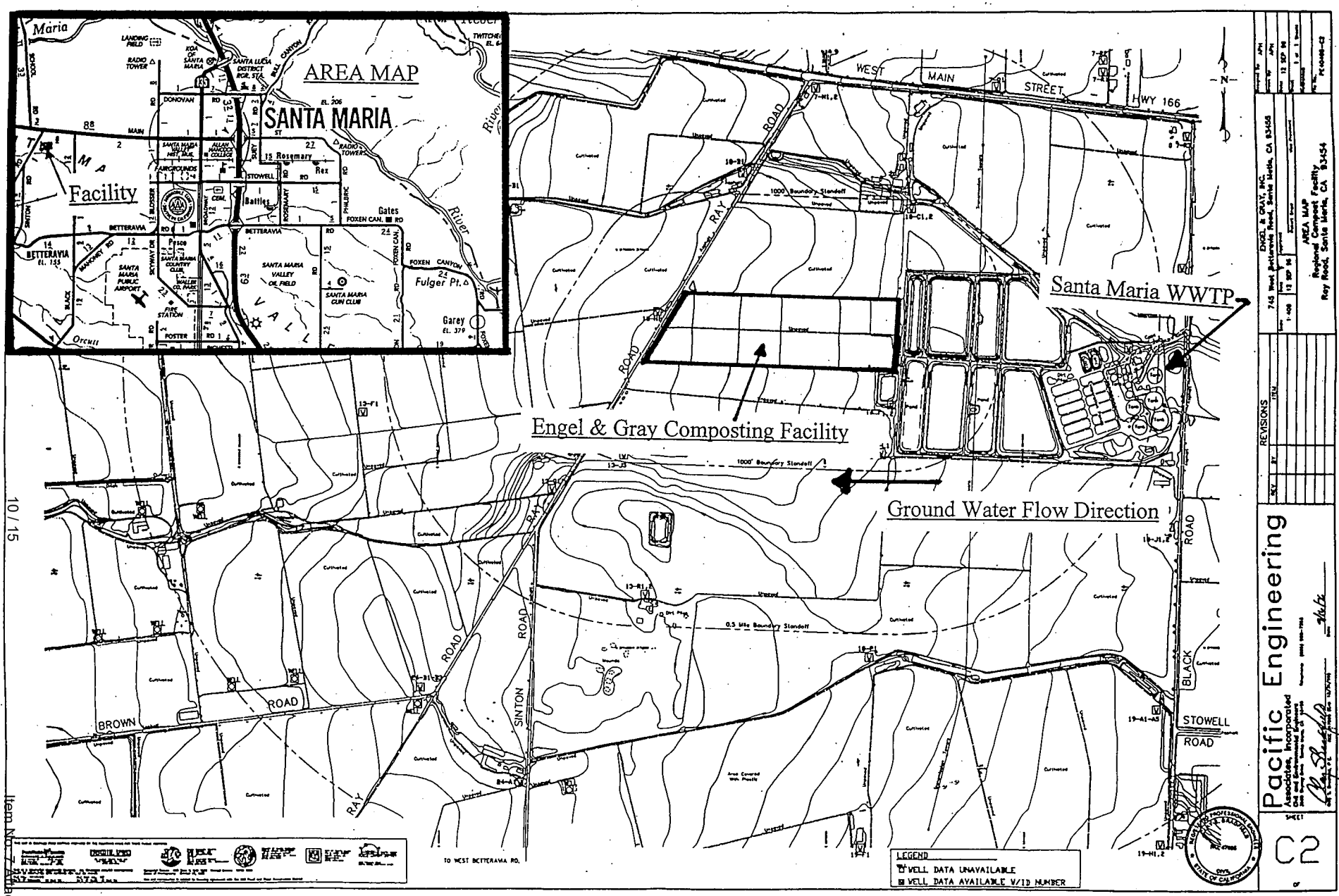
18. The Discharger and/or any person who violates this Order and/or who intentionally or negligently discharges waste, causes or permits waste to be deposited where it is discharged to waters of the state, may be liable for civil and/or criminal remedies, as appropriate, pursuant to the California Water Code.[c]

19. The Board will review this Order periodically and may revise its requirements when necessary.

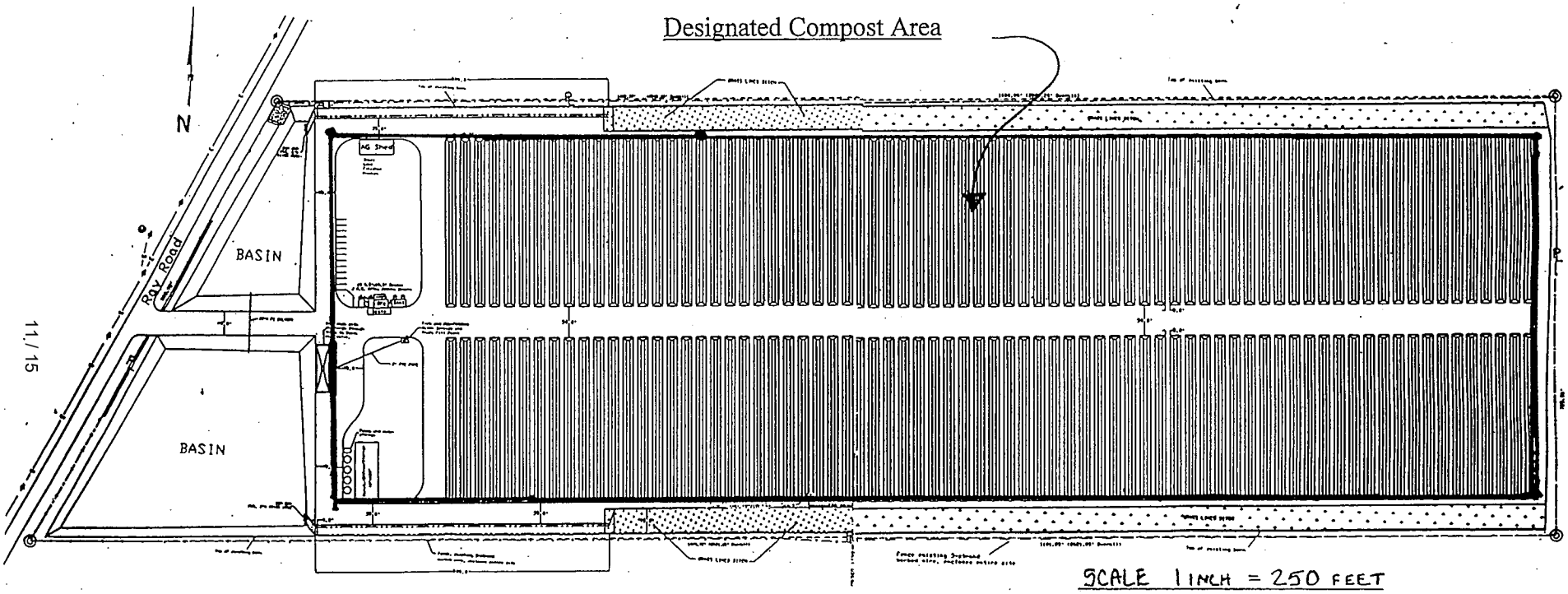
I, Roger W. Briggs, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on April 9, 1999.

Executive Officer

99-11.wdr



ATTACHMENT I ENGEL & GRAY REGIONAL COMPOSTING FACILITY
VICINITY MAP



ATTACHMENT II ENGEL & GRAY REGIONAL COMPOSTING FACILITY

SITE MAP

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
81 Higuera Street, Suite 2000
San Luis Obispo, CA 93401-5427

MONITORING AND REPORTING PROGRAM NO. 99-11

Waste Discharger Identification No. 3 429812001

For

ENGEL & GRAY INC. AND CITY OF SANTA MARIA
ENGEL & GRAY REGIONAL COMPOSTING FACILITY
SANTA BARBARA COUNTY

I. INFLUENT (FEEDSTOCK) MONITORING

A General
1. The source of all loads shall be documented.
2. The date of refusal, cause for refusal, and source of any refused load shall be recorded.

B. Biosolids (Waste water treatment plant sludge)
Table 1 information shall be obtained for each biosolids source prior to initial acceptance and at least annually thereafter.

C. Liquid Feedstock
1. The date, time, and quantity of all liquid feedstock received shall be recorded.
2. Each load of liquid feed stock shall be analyzed for pH. Hazardous loads (pH less than or equal to 2, or greater than or equal to 12.5) shall be refused.
3. Randomly (at least 1 in 20 loads), liquid loads shall be sampled and analyzed for:
   - Volatile Organics, EPA Method 8260
   - Semi-Volatile Organics, EPA Method 8270
   - Pesticides and Herbicides, EPA Method 8080

Sampling results that indicate significant quantities by any of the above analysis shall be reported verbally (within 24 hours) and in writing (within 7 days) to the Board. The report shall include the source of the load and action taken by the Discharger.

II. SURFACE WATER MONITORING

Each on site water basin shall be sampled quarterly when liquid is present, with the first sample taken within two weeks of first water of the wet season. Off-site discharge shall be sampled monthly during periods of occurrence and within two hours of the season's first discharge occurring. If sampling within two hours of first flow is impracticable, sample as soon as practicable thereafter, and provide an explanation of why the sample is delayed with the monitoring report.

Analyze all surface water samples for:

pH, fecal coliform, total nitrogen
In addtion to the above, samples of off-site discharge shall be analyzed for:

Total organic carbon or oil and grease, total suspended solids, and specific conductance.

III. SOIL MONITORING

A. Within ninety days after initiation of this Program and annually there after, soil samples shall be taken according to the following criteria:

- One background sample taken within facility boundaries, outside areas potentially affected by composting;
- At least one sample location in the pre-processing area;
- Three samples from the compost processing area with two of those samples located in area most used for biosolids composting;
- One sample location in each retention basin that received runoff during the year;
- With exception of the background location, samples shall be taken at locations that represent worst-case scenarios;
- At each location two samples, one at six inches and one at eighteen inches below ground surface shall be taken and analyzed separately; and
- Each soil sample shall be analyzed for Percent Relative Compaction, Total Nitrogen, Fecal Coliform, pH, and all metals listed in Table 1.

B. When surface soils require re-compaction, compaction testing shall be performed at a rate of one test for every 15,000 square feet.

Reporting of soil sampling data shall include a map showing sample location at a reasonable scale and rationale for the selection of each location.

IV. SAMPLE COLLECTION AND ANALYSIS

Sample collection, storage, and analysis shall be performed according to the most recent version of Standard USEPA Methods (USEPA publication "SW-846"). Analysis shall be performed by a laboratory certified for these analyses by the State of California. Specific methods of analysis must be identified. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign reports of such work submitted to the Board. In addition, the Discharger is responsible for seeing that the laboratory analysis of samples from Monitoring Points meets the following restrictions:

A. The methods of analysis and the detection limits used must be appropriate for the expected concentrations. For detection monitoring of any constituent or parameter that historically is non-detect in data for that medium, the analytical method having the lowest Method Detection Limit shall be selected.

B. Method Detection Limits and Practical Quantitation Limits shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. Both limits shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the laboratory. If the laboratory suspects that, due to a change in matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-derived values, the results shall be flagged accordingly, and an estimate of the limit actually achieved shall be included.

C. Quality assurance and quality control (QA/QC) data shall be reported along with the sample results to which it applies. Sample results shall be reported unadjusted for blank results or spike recovery. The QA/QC data submittal shall include:

- Method, equipment, and analytical detection limits used;
- Recovery rates, an explanation for any recovery rate that is outside the USEPA-specified recovery rate;
- Results of equipment and method blanks;
- Results of spiked and surrogate samples;
- Frequency of quality control analysis;
- Chain of custody logs; and
- The name and qualifications of the person(s) performing the analyses.

V. REPORTING

Reports shall be prepared and submitted by the 30th of January and July. Reports shall contain all data collected or calculated and all observations made during the previous two quarters. It shall also contain a narrative summary of any exceptions to Waste Discharge Requirements.

January reports shall be considered the Annual Report and contain the following additional information:

- Results of analysis performed on an annual basis.
- Numerical or graphical comparisons of all historical data.
- Narrative Summary of the years operations, including information regarding; non-compliance episodes and actions take, annual totals of feedstock received and compost produced, and summary of significant operational changes.

Ordered by: _____
Executive Officer

Date: 4-14-99

Table 1 BIOSOLIDS SOURCE AND ANALYSIS RECORD

Source

Source:	
Wastewater Treatment Plant:	
Mailing Address:	
Contact Person:	
Phone:	

Method of pathogen reduction: _____

Method of vector attraction reduction: _____

(Reference methods to CFR Title 40, Part 503)

Constituent Concentrations

Constituent	Reporting Unit or Method	Collection Date
Arsenic	mg/kg, dry weight	
Cadmium	mg/kg, dry weight	
Chromium	mg/kg, dry weight	
Copper	mg/kg, dry weight	
Lead	mg/kg, dry weight	
Mercury	mg/kg, dry weight	
Molybdenum	mg/kg, dry weight	
Nickel	mg/kg, dry weight	
Selenium	mg/kg, dry weight	
Zinc	mg/kg, dry weight	
pH		
Total Solids content	%	
Total Nitrogen	mg/kg, dry weight	
Fecal Coliform	MPN/gram	
Total Phosphorus, as P	mg/kg, dry weight	
Various (PCBs)	EPA Method 8080	
Various Semi-Volatile Organics	EPA Method 8270	

Table 1