



for fecal coliform density as an indicator for all pathogens. As described in 40 CFR 503.32(b)(2), the geometric mean of the fecal coliform density of seven representative samples shall be less than either 2 million Most Probable Number (mpn) per gram of total solids (dry weight basis) or 2 million Colony Forming Units (cfu) per gram of total solids (dry weight basis).

5. 40 CFR 503.16(a)(1) specifies the frequency of monitoring in the case of land-applied sewage sludge.
6. 40 CFR 503.12 requires that the person who prepares sewage sludge provide the persons applying the sewage sludge "notice and necessary information to comply with the requirements" in Subpart B of Part 503. In this case, this information includes the pertinent site and harvesting restrictions of 503.32(b)(5). 40 CFR 503.7 requires that the person who prepares sewage sludge ensure that the applicable requirements in Part 503 are met when the sewage sludge is applied to the land.
7. The City of Pacifica ("Pacifica") owns and operates Calera Creek Water Recycling Plant, a publicly owned treatment works (POTW) as defined in 40 CFR 501.2, which generates sewage sludge. Therefore, Pacifica is a "person" under Section 502(5) of the Act, 33 U.S.C. Section 1362(5), and a "person who prepares sewage sludge" as defined in 40 CFR 503.9(r).
8. On February 15, 2008, Pacifica submitted its 2007 annual sewage sludge report for the Calera Creek Water Recycling Plant to EPA.
  - a. Pacifica stated in the annual report that it generated 670.5 dry metric tons (dmt) of sewage sludge, which was transferred to Synagro West.
  - b. Synagro West reported that it hauled 88.3 dmt to a landfill and land applied the remaining sewage sludge to sites in Merced County, Sacramento County, and Solano County for fertilizing pasture, sudan, and ryegrass, respectively.
  - c. Based on Pacifica's and Synagro West's reported numbers, Synagro West land applied 582.2 dmt of Pacifica's sewage sludge in 2007. Therefore, pursuant to 40 CFR 503.16(a)(1), Pacifica is required to monitor once per quarter.
  - d. Pacifica provided fecal coliform analytical data for 2007 to demonstrate Class B pathogen reduction. However, Pacifica's average geometric means for the monitoring periods of January through March and April through June both exceeded 2,000,000 mpn/gram, 100% dry weight basis.\*
9. Despite Pacifica's failure to meet Class B pathogen requirements, Pacifica's sewage sludge was land applied during the first two quarters of 2007.
  - a. For the first and second quarters of 2007 in which Pacifica exceeded the maximum fecal coliform density of 2,000,000 mpn/gram, Synagro West's report indicates that the sewage sludge was land applied for at least a portion of the first quarter and all of

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\* Ten sampling dates in the first quarter and eleven sampling dates in the second quarter of 2007 showed geometric means greater than 2,000,000 mpn/gram.

- the second quarter. During the first quarter, the sewage sludge was land applied to various fields in Merced County. During the second quarter, the sewage sludge was land applied to fields in both Sacramento County and Solano County.
- b. High levels of fecal coliform may be indicative of high levels of pathogenic organisms. The land application of Pacifica's sewage sludge during the first two quarters of 2007 could pose a risk to grazing animals or wildlife.
10. By land applying sewage sludge that exceeded the standards in 40 CFR 503, Subpart B, Respondent has violated Section 405(e) of the Act, 33 U.S.C. §1345(e).

### **ORDER FOR COMPLIANCE**

Considering the foregoing Findings of Violation and the potential environmental and human health effects of the violations, EPA has determined that compliance in accordance with the following requirements is reasonable. Pursuant to the authority of Sections 308(a) and 309(a) of the Act, 33 U.S.C. §§1318(a) and 1319(a), it is hereby ORDERED:

11. On a monthly basis, **from March 1, 2009 through February 28, 2010**, Pacifica shall submit the following self-monitoring results to EPA:
- a. Pathogen Reduction
- (1.) Results of sewage sludge sample analyses for fecal coliform density with each result reported as a 7-sample geometric mean, to demonstrate compliance with 40 CFR 503.32(b)(2). The monthly submittal shall include the following information:
- (i.) EPA-approved test method used by the laboratory
  - (ii.) Name and address of the laboratory
  - (iii.) Results reported on 100% dry weight basis
  - (iv.) Dates and times that samples were collected for each geometric mean that is calculated
  - (v.) Dates and times that samples were analyzed by the laboratory for each geometric mean that is calculated
  - (vi.) Indication when a result exceeds the limit of 2,000,000 mpn/gram.
- At the end of each quarter, Pacifica's monthly submittal shall include the average of the results for that quarter.
- (2.) Alternatively, if Pacifica is choosing to demonstrate compliance with Class A pathogen requirements, the results of such self-monitoring, as required by 40 CFR 503.32(a).

b. Vector Attraction Reduction

- (1.) Volatile solids reduction data, to demonstrate compliance with 40 CFR 503.33(b)(1). The monthly submittal shall include the following information:
  - (i.) Each day's measurement of volatile solids in and out
  - (ii.) The locations that volatile solids in and out are being measured
  - (iii.) The resulting calculated value of percent volatile solids reduction for each day's measurements
  - (iv.) The calculated monthly average percent volatile solids reduction
  - (v.) Indication when a percent volatile solids reduction value is less than 38%.

At the end of each quarter, Pacifica's monthly submittal shall include the average of the results for that quarter.

- (2.) Alternatively, if Pacifica chooses to demonstrate compliance with a different option of 40 CFR 503.33(b), the results of such self-monitoring and identification of the chosen option.

- c. For each month in which Pacifica has not had sewage sludge land applied, a statement that such is the case. Instead of the self-monitoring required by Items #11a and b, Pacifica shall report the tonnage (dmt) of sewage sludge that was generated and that was hauled to the landfill that month.

12. Monthly submittals required by Item #11 are due to EPA by the **28th day of each month** following the monitoring period for the previous month. The first monthly submittal is due on April 28, 2009. The twelfth and last monthly submittal is due on March 28, 2010.
13. Pacifica shall identify a person responsible for reviewing relevant sewage sludge data and shall submit the name and contact information of this person to EPA by **March 28, 2009**. This person's duties shall include ensuring that sewage sludge is not hauled away to be land applied if the applicable pathogen or vector attraction reduction requirements of 40 CFR 503 are not met. This person shall also be responsible for implementing the procedure required by Item #14 below.
14. Pacifica shall develop and implement a procedure to ensure that sewage sludge not meeting the applicable pathogen or vector attraction reduction requirements of 40 CFR 503 is not sent to land application. The procedure must enable Pacifica to track measurements and data, to identify when there is a risk of violation of applicable standards, and to initiate appropriate action in a timely manner. For example, to ensure pathogen requirements are met, a running geometric mean of fecal coliform density results would be regularly recorded, and a fecal coliform density trigger limit below 2 million mpn/gram (say, 1.5 million mpn/gram) could be set at which sewage sludge would automatically be sent to a landfill instead of to the land applier. The procedure shall be submitted in writing to EPA by **March 28, 2009**.

15. The monthly submittals required by Item #11 shall include a listing and description of instances when, based on the procedure in Item #14, sewage sludge was sent to a landfill instead of to the land applier. The description shall include, but not be limited to, the step of the procedure that was triggered, the applicable pathogen or vector attraction reduction requirements that were in danger of not being met, and relevant dates including the date of sample analysis and the date that the sewage sludge was hauled to the landfill.
16. By **March 28, 2009**, Pacifica shall submit to EPA certification from Synagro that Synagro complied with site and harvesting restrictions of 40 CFR 503.32(b)(5) for the fields where it land applied Pacifica's sewage sludge during 2007. Provided that Pacifica is still producing sewage sludge to meet Class B pathogen requirements (and not Class A), Pacifica shall include a copy of any land application contractor's site and harvesting certifications in future annual reports.

17. All submittals required by this Order shall be mailed to:

Anna Yen  
U.S. Environmental Protection Agency, Region 9  
75 Hawthorne St. (WTR-7)  
San Francisco, CA 94105

18. All submittals required under this Order shall include the following certification signed by Respondent or Respondent's duly authorized representative:

I certify under penalty of law that this document and all attachments were prepared by direct supervision or in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of those who manage the system or are directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

19. This Order is not a permit under the Act, and does not waive or modify Respondent's obligations and responsibility to ascertain and comply with all applicable federal, state or local laws, regulations, ordinances, permits or licenses.
20. EPA has promulgated regulations to protect the confidentiality of the business information it receives at 40 CFR Part 2, Subpart B. A claim of business confidentiality may be asserted in the manner specified by 40 CFR 2.203(b) for part or all of the information requested. EPA will disclose business information covered by such a claim only as authorized under 40 CFR Part 2, Subpart B. If no such claim accompanies the business information at the time EPA receives it, EPA may make it available to the public without

further notice. Respondent may not withhold from EPA any information on the grounds that it is confidential business information.

21. This requirement of information is not subject to review by the Office of Management and Budget (“OMB”) under the Paperwork Reduction Act because it is not a “collection of information” within the meaning of 44 U.S.C. §§3502(3). It is directed to fewer than ten persons and is an exempt investigation under 44 U.S.C. §3518(c)(1) and 5 CFR 1320.4(a)(2).
22. This Order shall be binding upon Respondent, and Respondent’s officers, directors, agents, servants, employees, heirs, successors and assigns.
23. Issuance of this Order shall not be an election by EPA to forego any remedies available to it under the law, including without limitation any administrative, civil, or criminal action to seek penalties, fines, or other appropriate relief under the Act. EPA reserves all rights and remedies, legal and equitable, available to enforce any violation cited in this Order and to enforce this Order.
24. Section 309(a), (b), (d) and (g) of the Act, 33 U.S.C. § 1319(a), (b), (d) and (g), provides administrative and/or civil judicial relief for failure to comply with the CWA. Section 309(c) of the Act, 33 U.S.C. §1319(c), provides criminal sanctions for negligent or knowing violations of the CWA and for knowingly making false statements.
25. This Order takes effect upon signature.

February 10, 2009

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Date

<Original signed by>

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Alexis Strauss  
Director, Water Division