

## ATTACHMENT H

### BIOSOLIDS AND SLUDGE MANAGEMENT

(Note: "Biosolids" refers to non-hazardous sewage sludge, as defined at 40 CFR 503.9. Sewage sludge that is hazardous, as defined at 40 CFR 261, must be disposed of in accordance with the Resource Conservation and Recovery Act (RCRA).)

#### 1. General Requirements

- a. All biosolids generated by the Discharger shall be used or disposed of in compliance with applicable portions of Clean Water Act and Safe Drinking Water Act, including: 40 CFR 503—for biosolids that are land applied, placed in a surface disposal site (dedicated land disposal site, monofill, or sludge-only parcel at a municipal landfill), or incinerated; 40 CFR 258—for biosolids disposed of in a municipal solid waste landfill (with other materials); and 40 CFR 257—for all biosolids use and disposal practices not covered under 40 CFR 258 or 503.

40 CFR 503, Subpart B (land application), sets forth requirements for biosolids that are applied for the purpose of enhancing plant growth or for land reclamation. 40 CFR 503, Subpart C (surface disposal), sets forth requirements for biosolids that are placed on land for the purpose of disposal.

The Discharger is responsible for assuring that all biosolids produced at its facility are used or disposed of in accordance with these rules, whether the Discharger uses or disposes of the biosolids itself, or transfers their biosolids to another party for further treatment, use, or disposal. The Discharger is responsible for informing subsequent preparers, applicers, and disposers of requirements they must meet under these rules.

- b. Duty to Mitigate: The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal which has a likelihood of adversely affecting human health or the environment.
- c. No biosolids shall be allowed to enter wetlands or other waters of the United States.
- d. Biosolids treatment, storage, use, or disposal shall not contaminate groundwater.
- e. Biosolids treatment, storage, use, or disposal shall not create a nuisance such as objectionable odors or flies.

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- f. The Discharger shall assure that haulers transporting biosolids off-site for treatment, storage, use, or disposal take all necessary measures to keep the biosolids contained. Trucks hauling biosolids that are not Class A, as defined at 40 CFR 503.32(a), shall be cleaned as necessary after loading and after unloading, so as to have no biosolids on the exterior of the truck or wheels. Trucks hauling biosolids that are not Class A shall be tarped. All haulers must have spill clean-up procedures. Trucks hauling biosolids that are not Class A shall not be used for hauling food or feed crops after unloading the biosolids unless the Discharger submits a hauling description, to be approved by USEPA, describing how trucks will be thoroughly cleaned prior to adding food or feed.
- g. If biosolids are stored for over two years from the time they are generated, the Discharger must ensure compliance with all requirements for surface disposal under 40 CFR 503, Subpart C, or must submit a written request to USEPA and the State with the information specified under 40 CFR 503.20(b), demonstrating the need for longer temporary storage. During storage of any length for non-Class A biosolids, whether on the facility site or off-site, adequate procedures must be taken to restrict access by the public and domestic animals.
- h. Any biosolids treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials to escape from the site. Adequate protection is defined as protection from at least a 100-year storm and the highest tidal stage which may occur.
- i. There shall be adequate screening at the plant headworks and/or at the biosolids treatment units to ensure that all pieces of metal, plastic, glass, and other inert objects with a diameter greater than 3/8 inches are removed.
- j. Sewage sludge containing more than 50 mg/kg PCBs shall be disposed of in accordance with 40 CFR 761.
- k. The Discharger shall ensure compliance with the requirements in State Water Board Order No. 2004-10-DWQ, "General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural and Land Reclamation Activities" for those sites receiving the Discharger's biosolids which a Regional Water Board has placed under this general order, and with the requirements in individual Waste Discharge Requirements (WDRs) issued by a Regional Water Board for sites receiving the Discharger's biosolids.
- l. The Discharger shall comply, if applicable, with WDRs issued by Regional Water Boards to which jurisdiction the biosolids are transported and applied,

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and with the State of Arizona's biosolids rule for biosolids transported to Arizona for treatment and/or use.

## 2. Inspection and Entry

The Regional Water Board, USEPA, or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the Discharger, directly or through contractual arrangements with their biosolids management contractors, to:

- a. Enter upon all premises where biosolids produced by the Discharger are treated, stored, used, or disposed of, by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal.
- b. Have access to and copy any records that must be kept by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal, under the conditions of this Order/Permit or 40 CFR 503.
- c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in biosolids treatment, storage, use, or disposal by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal.

## 3. Monitoring

- a. Biosolids shall be monitored for the following constituents, at the frequency stipulated in Table 1 of 40 CFR 503.16: arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, organic nitrogen, ammonia nitrogen, and total solids. If biosolids are removed for use or disposal on a routine basis, sampling should be scheduled at regular intervals throughout the year. If biosolids are stored for an extended period prior to use or disposal, sampling may occur at regular intervals, or samples of the accumulated stockpile may be collected prior to use or disposal, corresponding to the tons accumulated in the stockpile over that period.

Monitoring shall be conducted using the methods in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), or as otherwise required under 40 CFR 503.8(b). All results must be reported on a 100% dry weight basis and records of all analyses must state on each page of the analytical results whether the reported results are expressed on an "as-is" or a "100% dry weight" basis.

- b. The Discharger shall sample biosolids twice per year for the pollutants listed under CWA section 307(a) using best practicable detection limits.

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For accumulated, previously untested biosolids, the Discharger shall develop a representative sampling plan, which addresses the number and location of sampling points, and collect representative samples.

Test results shall be expressed in mg pollutant per kg biosolids on a 100% dry weight basis.

Biosolids to be land applied shall be tested for Organic-N, ammonium-N, and nitrate-N at the frequencies required above.

- c. Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and Federal facilities with >5 mgd influent flow shall sample biosolids for pollutants listed under Section 307(a) of the Clean Water Act (as required in the pretreatment section of the permit for POTWs with pretreatment programs.) Class 1 facilities and Federal facilities with >5 mgd influent flow shall test dioxins/dibenzofurans using a detection limit of <1 pg/g during their next sampling period if they have not done so within the past 5 years and once per 5 years thereafter.
- d. The biosolids shall be tested annually, or more frequently if necessary, to determine hazardousness in accordance with California Law.

#### 4. Pathogen and Vector Control

- a. Prior to land application, the Discharger shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed under 40 CFR 503.32.
- b. Prior to disposal in a surface disposal site, the Discharger shall demonstrate that the biosolids meet Class B levels pathogen reduction levels, or ensure that the site is covered at the end of each operating day. If pathogen reduction is demonstrated using a "Process to Further Reduce Pathogens" or one of the "Processes to Significantly Reduce Pathogens", the Discharger shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliform and/or pathogens, samples must be collected at the frequency specified in Table 1 of 40 CFR 503.16. If Class B is demonstrated using fecal coliform, at least seven grab samples must be collected during each monitoring period and a geometric mean calculated from these samples. The following holding times between sample collection and analysis shall not be exceeded: fecal coliform—6 hours when cooled to  $\leq 4$  degrees C ([extended to 24 hours when cooled to <4 degrees C for Class A composted, Class B aerobically digested, and Class B anaerobically digested sample types](#)); Salmonella spp. bacteria—24 hours when cooled to  $\leq 4$  degrees C ([unless using Method](#)

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1682—6 hours when cooled to <10 degrees C); enteric viruses—2 weeks when frozen; helminth ova—one month when cooled to  $\leq 4$  degrees C.

- c. For biosolids that are land applied or placed in a surface disposal site, the Discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in under 40 CFR 503.33 (b).

## 5. Surface Disposal

If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.

## 6. Landfill Disposal

Biosolids placed in a municipal landfill shall be tested by the Paint Filter Test (SW-846, Method 9095) at the frequency specified in Table 1 of 40 CFR 503.16, or more often if necessary to demonstrate that there are no free liquids.

## 7. Notifications

The Discharger either directly or through contractual arrangements with their biosolids management contractors shall comply with the following notification requirements:

- a. Notification of Non-compliance

       The Discharger shall notify USEPA and the State (for both Discharger and use or disposal site) of any non-compliance within 24 hours, if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Discharger shall notify USEPA and the State of the non-compliance in writing within 5 working days of becoming aware of the non-compliance. The Discharger shall require their biosolids management contractors to notify USEPA and the State of any non-compliance within these same time-frames.

- b. Interstate Notification

       If biosolids are shipped to another State or Tribal Land, the Discharger shall send 60 days prior notice of the shipment to the permitting authorities in the receiving State or Tribal Land, and the USEPA Regional Office.

- c. Land Application Notification

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Prior to using any biosolids from this facility (other than composted biosolids) at a new or previously unreported site, the Discharger shall notify USEPA and the State. This notification shall include a description and topographic map of the proposed site(s), names and addresses of the applier and site owner, and a listing of any State or local permits which must be obtained. It shall also include a description of the crops or vegetation to be grown, proposed loading rates, and a determination of agronomic rates.

Within a given monitoring period, if any biosolids do not meet the applicable metals concentration limits specified under 40 CFR 503.13, then the Discharger (or its contractor) must pre-notify USEPA, and determine the cumulative metals loading at that site to date, as required by 40 CFR 503.12.

d. Surface Disposal Notification

— Prior to disposal at a new or previously unreported site, the Discharger shall notify USEPA and the State. The notice shall include a description and topographic map of the proposed site, depth to groundwater, whether the site is lined or unlined, site operator and site owner, and any State or local permits. It shall also describe procedures for ensuring grazing and public access restrictions for three years following site closure. The notice shall include a groundwater monitoring plan or description of why groundwater monitoring is not required.

**8. Reporting**

The Discharger shall furnish this Regional Water Board with a copy of any report submitted to USEPA, State Water Board or other Regional Water Board, with respect to municipal sludge or biosolids. The Discharger shall submit an annual biosolids report to the USEPA Region 9 Biosolids Coordinator and the State by February 19 of each year for the period covering the previous calendar year. The report shall include:

- a. The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.
- b. Results of all pollutant monitoring required under Monitoring, above. Results must be reported on a 100% dry weight basis.
- c. Demonstrations of pathogen and vector attraction reduction methods, as required under 40 CFR 503.17 and 503.27, and certifications.
- d. Names, mailing addresses, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal landfill, deep well injection, or other use or disposal method not covered above, and tonnage delivered to each.

- e. The following information must be submitted by the Discharger, unless the Discharger requires its biosolids management contractors to report this information directly to the USEPA Region 9 Biosolids Coordinator.

- i. For land application sites:

Locations of land application sites (with field names and numbers) used that calendar year, size of each field applied to, applicer, and site owner.

Volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, and calculated plant available nitrogen.

Crops planted, dates of planting and harvesting.

For biosolids exceeding 40 CFR 503.13 Table 3 metals concentrations, the locations of sites where the biosolids were applied and cumulative metals loading at the sites to date.

Certifications of management practices at 40 CFR 503.14.

Certifications of site restrictions at 40 CFR 503(b)(5).

- ii. For surface disposal sites:

Locations of sites, site operator and site owner, size of parcel on which biosolids were disposed.

Results of any required groundwater monitoring.

Certifications of management practices at 40 CFR 503.24.

- iii. For closed sites, the date of site closure and certifications of management practices for three years following site closure.

- f. All reports shall be submitted to:

Regional Biosolids Coordinator  
U.S. Environmental Protection Agency  
CWA Compliance Office (WTR-7)  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Biosolids Program Coordinator  
Arizona Department of Environmental Quality  
Mail Code: 5415B-1  
1110 West Washington Street  
Phoenix, AZ 85007

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