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Title 22@ Social Security

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Division 4.5@ Environmental Health Standards for the Management of Hazardous Waste

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Chapter 14@ Standards for Owners and Operators of Hazardous Waste Transfer, Treatment, Storage, and Disposal Facilities

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Article 13@ Land Treatment

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Section 66264.280@ Closure and Post-Closure Care

66264.280 Closure and Post-Closure Care

(a)

During the closure period the owner or operator shall: (1) continue all operations (including pH control) necessary to maximize degradation, transformation, or immobilization of constituents of concern within the treatment zone as required under section 66264.273(a), except to the extent such measures are inconsistent with subsection (a)(7) of this section; (2) continue all operations in the treatment zone to prevent run-off of constituents of concern as required under section 66264.273(b); (3) maintain the run-on control system required under section 66264.273(c); (4) maintain the run-off management system required under section 66264.273(d); (5) control wind dispersal of hazardous waste if required under section 264.273(f); (6) continue vadose zone monitoring in compliance with section 66264.278, except that soil-pore liquid monitoring may be terminated after the waste added to the treatment zone has been shown to the satisfaction of the Department to have been completely degraded, immobilized or transformed, but in no event can monitoring be discontinued in less than 90 the last application of waste to the treatment zone; and (7) control of the release of airborne contaminants to below hazardous or nuisance levels or other levels as necessary to protect human health or the environment; (8) establish a vegetative cover on the portion of the facility being closed at such time that the cover will not substantially impede degradation, transformation, or immobilization of

constituents of concern in the treatment zone. The vegetative cover shall be capable of maintaining growth without extensive maintenance.

(1)

continue all operations (including pH control) necessary to maximize degradation, transformation, or immobilization of constituents of concern within the treatment zone as required under section 66264.273(a), except to the extent such measures are inconsistent with subsection (a)(7) of this section;

(2)

continue all operations in the treatment zone to prevent run-off of constituents of concern as required under section 66264.273(b);

(3)

maintain the run-on control system required under section 66264.273(c);

(4)

maintain the run-off management system required under section 66264.273(d);

(5)

control wind dispersal of hazardous waste if required under section 264.273(f);

(6)

continue vadose zone monitoring in compliance with section 66264.278, except that soil-pore liquid monitoring may be terminated after the waste added to the treatment zone has been shown to the satisfaction of the Department to have been completely degraded, immobilized or transformed, but in no event can monitoring be discontinued in less than 90 the last application of waste to the treatment zone; and

(7)

control of the release of airborne contaminants to below hazardous or nuisance levels or other levels as necessary to protect human health or the environment;

(8)

establish a vegetative cover on the portion of the facility being closed at such time that the cover will not substantially impede degradation, transformation, or immobilization of constituents of concern in the treatment zone. The vegetative cover shall be capable of maintaining growth without extensive maintenance.

(b)

For the purpose of complying with section 66264.115, when closure is completed the owner or operator may submit to the Department certification by an independent qualified soil scientist or an independent, California Certified Engineering Geologist in lieu of an independent California registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(c)

During the post-closure care period the owner or operator shall: (1) continue all operations (including pH control) necessary to enhance degradation and transformation and sustain immobilization of constituents of concern in the treatment zone to the extent that such measures are consistent with other post-closure care activities; (2) maintain a vegetative cover over closed portions of the facility; (3) maintain run-on control system required under section 66264.273(c); (4) maintain the run-off management system required under section 66264.273(d); (5) control wind dispersal of hazardous waste if required under section 66264.273(f); (6) continue vadose zone monitoring in compliance with section 66264.278 and section 66264.280(a)(6); and (7) control of the release of airborne contaminants to below hazardous or nuisance levels or other levels as necessary to protect human health or the environment.

(1)

continue all operations (including pH control) necessary to enhance degradation and

transformation and sustain immobilization of constituents of concern in the treatment zone to the extent that such measures are consistent with other post-closure care activities;

(2)

maintain a vegetative cover over closed portions of the facility;

(3)

maintain run-on control system required under section 66264.273(c);

(4)

maintain the run-off management system required under section 66264.273(d);

(5)

control wind dispersal of hazardous waste if required under section 66264.273(f);

(6)

continue vadose zone monitoring in compliance with section 66264.278 and section 66264.280(a)(6); and

(7)

control of the release of airborne contaminants to below hazardous or nuisance levels or other levels as necessary to protect human health or the environment.

(d)

The owner or operator is not subject to regulation under subsections (a)(7) and (c) of this section if the Department finds that the level of constituents of concern in the treatment zone soil does not exceed the background value of those constituents by an amount that is statistically significant when using the test specified in subsection (d)(3) of this section and that the waste in the treatment zone has been shown to the satisfaction of the Department to have been completely degraded, transformed or immobilized. The owner or operator may submit such a demonstration to the Department at any time during the closure or

post-closure care periods. For the purposes of this subsection: (1) the owner or operator shall establish background soil values and determine whether there is a statistically significant increase over those values for all constituents of concern specified in the facility permit under section 66264.271(b); (A) background soil concentrations may be based on a one-time sampling of a background plot having characteristics similar to those of the treatment zone where soil has not been contacted by constituents of waste; (B) the owner or operator shall express background values and values for constituents of concern in the treatment zone in a form necessary for the determination of statistically significant increases under subsection (d)(3) of this section; (2) in taking samples used in the determination of background and treatment zone concentrations, the owner or operator shall take samples at a sufficient number of sampling points and at appropriate locations and depths to yield samples that represent the chemical make-up of soil that has not been affected by leakage from the treatment zone and the soil within the treatment zone, respectively; (3) in determining whether a statistically significant increase has occurred, the owner or operator shall compare the concentration of each constituent in the treatment zone to the background concentration for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The owner or operator shall use a statistical procedure that: (A) is appropriate for the distribution of the data used to establish background concentrations; and (B) provides a reasonable balance between the probability of falsely identifying a statistically significant increase for a constituent of concern in the treatment zone and the probability of failing to identify a statistically significant increase in the treatment zone.

(1)

the owner or operator shall establish background soil values and determine whether there is a statistically significant increase over those values for all constituents of concern specified in the facility permit under section 66264.271(b); (A) background soil concentrations may be based on a one-time sampling of a background plot having characteristics similar to those of the treatment zone where soil has not been contacted by constituents of waste; (B) the owner or operator shall express background values and values for constituents of concern in the treatment zone in a form necessary for the determination of statistically significant increases under subsection (d)(3) of this section;

(A)

background soil concentrations may be based on a one-time sampling of a background plot having characteristics similar to those of the treatment zone where soil has not been contacted by constituents of waste;

(B)

the owner or operator shall express background values and values for constituents of concern in the treatment zone in a form necessary for the determination of statistically significant increases under subsection (d)(3) of this section;

(2)

in taking samples used in the determination of background and treatment zone concentrations, the owner or operator shall take samples at a sufficient number of sampling points and at appropriate locations and depths to yield samples that represent the chemical make-up of soil that has not been affected by leakage from the treatment zone and the soil within the treatment zone, respectively;

(3)

in determining whether a statistically significant increase has occurred, the owner or operator shall compare the concentration of each constituent in the treatment zone to

the background concentration for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The owner or operator shall use a statistical procedure that: (A) is appropriate for the distribution of the data used to establish background concentrations; and (B) provides a reasonable balance between the probability of falsely identifying a statistically significant increase for a constituent of concern in the treatment zone and the probability of failing to identify a statistically significant increase in the treatment zone.

(A)

is appropriate for the distribution of the data used to establish background concentrations;
and

(B)

provides a reasonable balance between the probability of falsely identifying a statistically significant increase for a constituent of concern in the treatment zone and the probability of failing to identify a statistically significant increase in the treatment zone.