

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ADDENDUM NO. 4 TO ORDER NO. 90-09

WASTE DISCHARGE REQUIREMENTS
FOR THE OTAY ANNEX LANDFILL
SAN DIEGO LANDFILL SYSTEMS – ALLIED WASTE INC.
SAN DIEGO COUNTY

**AN ADDENDUM ADDING DISCHARGE SPECIFICATIONS FOR THE MIXING
AND PLACEMENT OF A SPECIFIC ALTERNATIVE DAILY COVER (ADC)**

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. The Otay Annex Landfill is an active Class III municipal solid waste landfill. The facility is subject to both State (California Code of Regulations, Title 27) and Federal (Code of Federal Regulations, Title 40, Part 258) regulatory requirements.
2. In October 2002, the San Diego Landfill Systems – Allied Waste Inc. (the “discharger”) provided the Regional Board with a technical report entitled “Demonstration Project Final Report – Biosolids/ Soil and Biosolids / Green Waste Mixtures used as Alternative Daily Cover – Otay Landfill, Chula Vista, California. The report also included a request from the discharger to amend existing waste discharge requirements (Order 90-09 and addenda thereto) to allow the use of an alternative daily cover (ADC) comprised of a mixture of biosolids, green-waste, and/or soil.
3. The specific material requirements and limitations for alternative daily covers (ADC) are indicated in California Code of Regulations (CCR) Title 27, § 20690 *et seq.* The uses of processed green material, and treated sludge or treated sludge derived materials (or “biosolids”) in ADC are specifically allowed by § 20690(b)(3) and § 20690(b)(4).
4. Pursuant to CCR Title 27, § 20690(a)(6), for waste composition, classification, and liquid percolation requirements of alternative daily covers (ADC) must meet the performance standards and criteria listed in CCR Title 27, § 20705.
5. The performance standards and criteria of ADCs as established for the protection of water quality, include the following:
 - a.) Daily and intermediate - interim cover at landfills is “daily cover” and “intermediate cover” as defined by the CIWMB (see § 20160) [per CCR Title 27, § 20705(a)].

- b.) Minimize percolation – interim cover over wastes discharged to a landfill shall be designed and constructed to minimize percolation of liquids through waste [CCR Title 27, § 20705(b)].
 - c.) Match unit classification – daily and intermediate covers shall only consist of materials, which met the classification criteria for wastes that can be discharged to that landfill [CCR Title 27, § 20705(e) (1)].
 - d.) Composition – daily and intermediate covers shall only consist of materials, whose constituents (other than water) and foreseeable breakdown byproducts, under the chemical (including biochemical) and temperature conditions which it is likely to encounter at the landfill, either [CCR Title 27, § 20705(e)(2)]:
 - “for composite-lined portions of the Unit, are listed as COCs in the Unit’s water quality protection standard (Water Standard), created pursuant to § 20395.”
7. The discharger presented a technical report of results and included the following proposed characteristics for defining the composition of biosolids/greenwaste /soil mixtures as ADC at the Otay Annex Landfill:
- a.) Soil or green-waste mixed with biosolids to make ADC material must be either “nonhazardous waste” [per criteria of CCR Title 27, § 20220(a)] or “inert waste” [per criteria of CCR Title 27, § 20230(a)].
 - b.) The average volumetric mixture ratio was 5:4:1 (biosolids:greenwaste/mulch: soil) provided adequate control of odors during the pilot tests conducted during the months of August and September 2002.
 - c.) During the pilot test, the solids content of the biosolids, received from the City of San Diego Metropolitan Wastewater Department, varied between 22 and 32%.
 - d.) The biosolids, used in the ADC mixtures by the Otay Annex Landfill were certified, by the City of San Diego Metropolitan Wastewater Department, as meeting the Class B pathogen requirements of CFR Title 40, § 503.32(b)(3).
8. The discharger presented a technical report of results and made the following recommendations regarding restriction of public access to areas of the landfill where biosolids/green-waste /soil mixtures have been applied as ADC at the Otay Annex Landfill:
- a.) Areas upon which ADC materials are mixed or applied should be covered with additional soil or refuse before any public access to the area is permitted.

9. For the purposes of this Order, alternative daily cover (or "ADC") material is defined as a material meeting the compositional characteristics identified in Finding No. 3 of this Order.
10. Pursuant to their authority under CCR Title 27, the California Integrated Waste Management Board or the Local Enforcement Agency (County of San Diego Department of Environmental Health) may prescribe additional requirements for the use of ADC at the Otay Annex Landfill.
11. The Otay Annex Landfill is an existing facility and, as such, regulatory actions related to inactive landfills are exempt from the provisions of the California Environmental Quality Act in accordance with the California Code of Regulations, Title 14, Chapter 3, Article 19, §15301.
12. The Regional Board, in a public meeting, heard and considered all comments pertaining to the proposed action.

IT IS HEREBY ORDERED that Order No. 90-09 and Monitoring and Report Program No. 90-09 be hereby amended to include the following waste discharge requirements for the use of Alternative Daily Cover (ADC) materials at the Otay Annex Landfill:

A. DISCHARGE PROHIBITIONS FOR USE OF ADC

1. The mixing/preparation of Alternative Daily Cover (ADC) materials shall not cause or contribute to the creation of a condition of pollution or nuisance as defined by the California Water Code (§ 13050).
2. The application of ADC materials shall not cause or contribute to the creation of a condition of pollution or nuisance as defined by the California Water Code (§ 13050).
3. The minimum solids content of biosolids, used to create the ADC mixture, shall not be lower than the minimum criteria for dewatered sludge as prescribed by CCR Title 27, § 20220(c).
4. The mixture/preparation or application of ADC materials shall not occur in areas that do not contain an engineered liner and leachate collection and removal system (LCRS) at the landfill facility.
5. The acceptance or use of "hazardous waste" for purposes of mixing/preparation of ADC or in the application of ADC materials is prohibited. For the purposes of this Order, the term "hazardous waste" is as defined in California Code of Regulations (CCR) Title 22, Division 4.5, § 66261 *et seq.*

6. The mixture/preparation or application of ADC materials shall not create any condition(s) in violation of any discharge prohibitions in the Regional Board Basin Plan.

B. DISCHARGE SPECIFICATIONS FOR USE OF ADC

1. The soil component of the ADC material may be comprised of either “soil wastes” meeting the criteria established in Addendum No. 1 to Order 93-86 or “inert waste” [per criteria of CCR Title 27, § 20230(a)].
2. The ADC mixture shall be consistent with minimum compositional characteristics for green material and biosolids materials as specifically allowed by § 20690(b)(3) and § 20690(b)(4).
3. At a minimum, the ADC mixture shall be consistent with minimum applicable criteria for interim cover at landfills is “daily cover” and “intermediate cover” established pursuant to CCR Title 27, § 20705(e)(1) and § 20705(e)(2).
4. The ADC material shall meet or exceed the minimum performance standard required for intermediate - interim cover at landfills is “daily cover” and “intermediate cover” per CCR Title 27, § 20705(b)].
5. The biosolids received for use in an ADC mixture by the Otay Annex Landfill shall be derived from a single entity (the City of San Diego Metropolitan Wastewater Department).
6. The biosolids, received for use in an ADC mixture by the Otay Annex Landfill, must be certified, by the City of San Diego Metropolitan Wastewater Department, as meeting the minimum Class B pathogen requirements of CFR Title 40, § 503.32(b)(3).
7. Areas upon which ADC materials are mixed or applied shall be covered with additional soil or refuse before the discharger permits any public access to the area.

C. MONITORING AND REPORTING FOR USE OF ADC

1. The discharger shall amend the facility’s Operations Plan to include provisions for staging wastes, mixing wastes to create ADC materials, applying the final mixtures of ADC, and a contingency plan for [prepared pursuant to CCR Title 27, § 21760(b)(2) and §21760(b)(3)] the Otay Annex Landfill.
2. The discharger shall amend the facility’s Storm Water Pollution Prevention Program (SWPPP) to add regular monitoring and analyses for fecal coliform bacteria, total coliform bacteria, and total nitrogen to the monitoring and reporting program for storm water discharges from the Otay Annex Landfill.

3. Within 120-days of the adoption of this Order, the discharger shall provide the Regional Board with a sampling and monitoring plan of fecal coliform bacteria, total coliform bacteria and total nitrogen, in storm water discharges from waste management units, where the mixing and application of ADC occurs at the Otay Annex Landfill.
4. The discharger shall amend the list of contaminants of concern (COC) for the Otay Landfill to include nitrate. The discharger shall place the amended list into the Operating Record for the facility within 30-days of the adoption of this Order.
5. The discharger shall amend future annual monitoring reports with the following information: a plot plan clearly illustrating the location(s) of the ADC mixing facilities, waste piles (*i.e.*, containing green-waste/mulch, dewatered sludge, or finished ADC mixtures), and the areas of placement for ADC mixture within the waste management unit(s) at the Otay Annex Landfill. The discharger shall amend this information as necessary in future annual monitoring reports.

D. WATER QUALITY STANDARD (CCR Title 27, § 20395)

Section G of Order 90-09 is hereby **REPLACED** with the following:

“G. Water Quality Protection Standard

The five parts of the Water Quality Protection Standard [Standard] of CCR Title 27 §20390 are as follows:

1. Constituents of Concern (COC) [§20395, CCR Title 27].

The COCs for the Otay Annex Landfill are listed in Attachment No. 1 to M&RP No. 90-09. Nevertheless, under the M&RP, statistical and non-statistical data analysis is limited to those COCs that are on the current MPar list by virtue of their being present in detectable levels in ground water.

2. Concentration Limits [§20400, CCR Title 27].

The concentration limit for any given well/MPar pair is its applicable background data set, as determined or updated pursuant to the intra-well monitoring program at the Otay Landfill.

3. POC & Monitoring Wells [§20405, CCR Title 27].

The point of compliance (POC) and compliance wells are shown in Attachment No. 2 to Monitoring and Reporting Program (M&RP) No. 90-09.

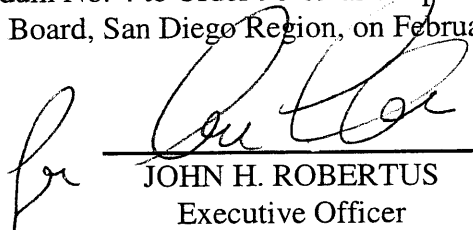
4. Monitoring Points and Background Monitoring Points for Detection Monitoring [§20405, CCR Title 27].

The Monitoring Points for the Otay Annex Landfill include the following: deep piezometers (OTGW-9 and OTGW-21) and seven shall wells (OTGW-11, OTGW-17, OTGW-20, OTGW-24, OTGW-25, OTGW-27, and OTGW-28). This M&RP also includes previously established additional Background groundwater Monitoring Point at OTGW-22 for the Otay Annex Landfill Landfill.

5. Compliance Period [§20410, CCR Title 27]

The minimum compliance period for the Otay Annex Landfill is 31 years. However, the landfill post-closure maintenance period shall continue until the Regional Board determines that remaining wastes in all waste management units (WMUs) will not threaten water quality [CCR Title 27 §20950(a)(1)].”

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of Addendum No. 4 to Order 90-09 as adopted by the California Regional Water Quality Control Board, San Diego Region, on February 11, 2004.



JOHN H. ROBERTUS
Executive Officer

ATTACHMENT NO. 1 TO TENTATIVE ADDENDUM NO. 4, ORDER 90-09 AND
 MONITORING AND REPORTING PROGRAM NO. 90-09

CURRENT COC LIST

INORGANIC CONSTITUENTS	
Total Barium	Total Chromium
Total Copper	Total Mercury
Total Chromium	
ORGANIC CONSTITUENTS	
Benzene	Tetrachloroethene
1,1-Dichloroethane	Trichloroethene
1,2-Dichloroethane	1,4- Dichlorobenzene
<i>cis</i> -1,2-Dichloroethene	Vinyl chloride
Nitrate - N	4-Methylphenol
Chlorobenzene	Dichlorodifluoromethane
<i>trans</i> -Dichloroethene	1,2,4- Trimethylbenzene
1,3,5-Trimethylbenzene	Isopropylbenzene
Methyl-tert-butyl- ether (MTBE)	n-Propylbenzene
p-Isopropyltoluene	sec-Butylbenzene
2-Methylphenol	3-Methylphenol
Acetophenone	Alpha-BHC
Heptachloroepoxide	Oil and Grease