# CALIFORNIIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

# ORDER R7-2013-0048 WASTE DISCHARGE REQUIREMENTS FOR

COUNTY OF IMPERIAL, OWNER, and BURRTEC WASTE INDUSTRIES, INC., OPERATOR SALTON CITY CLASS III MUNICIPAL SOLID WASTE MANAGEMENT FACILITY

Southwest of Salton City- Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region (Regional Water Board), finds that:

- 1. The County of Imperial Public Works Department (CIPWD) 155 South 11 Street, El Centro, 92243 is the owner of the landfill property. In December 2008, CIPWD granted Burrtec Waste Industries, Inc. (BWI), 9890 Cherry Avenue, Fontana, California, 92335, a 99-year lease to manage and operate the Salton City Class III Municipal Solid Waste Management Facility, (hereinafter referred to as the Facility), with the purpose of expanding the facility to the maximum extent possible. CIPWD and BWI are herein jointly referred to as Discharger. The Discharger submitted to the Regional Water Board a Report of Waste Discharge (RWD) dated January 14, 2013 and a Form 200 dated January 19, 2013 comprising an application to update the Facility's Waste Discharge Requirements (WDRs). The RWD was submitted in the form of a Joint Technical Document (JTD), which was required pursuant to California Code of Regulations, Title 27, Sections 21585 and 21710, due to the Facility's being subject to regulation by both the Regional Water Board and the County of Imperial, the Local Enforcement Agency.
- 2. The Facility is situated on 320 acres of property that was formerly owned by the United States Government and administered by the Bureau of Land Management (BLM). Imperial County took ownership of the 320 acre property on October 25, 2001. The Discharger currently operates a solid waste disposal facility on 7.8 acres of the 320 acre site. The address for the BLM is 1661 South 4th Street, El Centro, CA 92243.
- 3. The Discharger plans a lateral expansion to about 287.3 acres of the 320-acre parcel. Additionally, the height of the landfill would be increased to about 250 feet above natural ground surface for accommodating approximately 65 million cubic yards of municipal solid waste at full development.
- 4. The existing landfill utilizes 7.8 acres located within a 55-acre disturbed land footprint. The expansion will remove the 7.8-acre disposal area of the landfill and new composite-lined cells would be used for the remaining life of the project site. The existing 7.8 acres containing approximately 344,000 cubic yards of solid waste and soil will be excavated and resituated within the new CFR Part 258, Subpart D compliant lined waste management unit. The subgrade under the existing waste will be excavated and tested to verify clean soil conditions.

- 5. The Facility is located in the N1/2 of the Section 12, T11S, R9E, S.B.B.&M. Access to the site by road is off State Highway 86S as shown on the Location/Vicinity Map marked Figure 1, appended to and made part of this Order.
- 6. Definitions: The following terms used in this Order are as defined:
  - a. **Discharger** Any person who discharges waste that could affect the quality of the waters of the state, and includes any person who owns a waste management unit or who is responsible for the operation of the waste management unit (Title 27, California Code of Regulations).
  - **b. Waste Management Facility (WMF)** The entire parcel of property at which waste discharge operations are conducted. Such a facility may include one (1) or more waste management units.
  - c. Waste Management Unit (WMU) An area of Land, or a portion of a Waste Management Facility at which waste is or was discharged. The term includes containment features, ancillary features for precipitation and drainage control and monitoring.
  - d. Landfill A waste management unit at which waste is discharged in or on land for disposal. It does not include surface impoundments, waste piles, land and soil treatment.
  - e. Municipal Solid Waste (MSW) as defined in 40 CFR Part 258.
  - **f. Designated Waste –** as defined in Section 13173 of the California Water Code (CWC).
- 7. The WMF is currently regulated by WDRs found in Order R7-2006-0007, adopted on March 23, 2006. This Order updates the 2006 Order R7-2006-0007 to incorporate the laws and regulations as set forth in the California Water Code and combined State Water Resources Control Board (State Water Board)/California Integrated Waste Management Board (CIWMB) Regulations, Division 2, Title 27 (hereinafter referred to as Title 27), and federal regulations under the Resource Conservation Recovery Act (RCRA), also known as Subtitle D, and to reflect the proposed modifications described in the RWD.
- 8. On September 15, 1993, the Board adopted Order 93-071, which amended all municipal solid waste landfill Orders to comply with federal regulations.
- 9. In April of 2003, the Discharger submitted to the Regional Water Board the revised preliminary closure and post closure maintenance plans for the facility in accordance with Title 27. The Discharger reported that the Facility occupies an area of approximately 320 acres. The footprint of the Waste Management Unit is approximately 7.8 acres. The footprint of the new, laterally expanded Waste Management Unit will occupy 287.3 acres of those 320 acres. The Facility currently has a total potential waste capacity of approximately 851,800 tons with an approximate total volume of 2,581,300 cubic yards. The remaining capacity is approximately 9,799 cubic yds. Based on the projected waste generation rate and the current remaining capacity in the WMU, the Facility was expected to accept waste through 2024.

- 10. In September 2009, the Discharger submitted an updated Joint Technical Document and Preliminary Closure and Post-Closure Maintenance Plan for the facility in accordance with Title 27. The updated JTD included a revised final grading plan for the landfill and proposed reclamation of disposal airspace due to previous over use of cover soil. Remaining capacity reported at that time was approximately 148,417 tons with an approximate volume of 378,000 cubic yards. Based on the projected waste generation rate of 50 tons per day, 5 days per week, the remaining capacity in the WMU, the Facility was expected to accept waste through July 2020.
- 11. The proposed 287-acre lined WMU expansion will be constructed on the 320-acre parcel including the area under the existing unlined WMU, following relocation and clean subgrade verification of the entire 7.8 acres unlined cell. This will increase the remaining life from approximately 7 years at the current disposal rate of 50 tons per day to approximately 30 years at the projected disposal rate of 6,000 tons per day.
- 12. The proposed expansion will consist of 287 acres of a lined, multi cell/phase unit, which will be compliant with Subtitle D requirements and designed by a California Registered Civil Engineer or California Professional Certified Engineering Geologist. Design and liner system details are shown on Figure 2, appended hereto and made a part of this Order. In general, the liner can be summarized as follows, beginning at the bottom of the liner system: (1) geocomposite and piping drainage layer seep control and underdrain system, (2) 40 mil moisture barrier, (3) three feet of compacted engineered fill, 4) two feet of low permeability, compacted clay, or equivalent (4) 60 mil high density polyethylene (HDPE) primary liner, (5) a geocomposite LCRS drainage layer, and (6) a two foot thick protective cover soil layer. Additionally, the proposed expansion will be equipped with a leachate collection, recovery and recirculation system, and a landfill gas collection and recovery system that will conform to industry and regulatory design standards as each cell is constructed.
- 13. The Facility is not located in a 100-year flood plain. The land within a radius of one mile of the facility is zoned for recreational and open space uses.
- 14. The Facility is located in the Imperial Valley. The Valley slopes gently to the northeast on a very flat plain. General land elevation is between 30 feet below mean sea level in the northeast corner of the Facility and 20 feet above mean sea level in the southwestern corner of the Facility.
- 15. The Facility site is located on one contiguous 320-acre parcel, Assessor's Parcel Number (APN) 007-120-015-000, which comprises the entire Facility including the WMU, stormwater basins, landfill gas management systems, recyclable materials processing and storage area, construction, demolition and inert waste (CDI) operations, green waste operations and all ancillary facilities including but not limited to scales and entrance facilities, access roads, offices and shop structures,
- 16. Land use with 1,000 feet of the Facility is as follows:
  - a) Undeveloped highly disturbed State Park Lands used primarily for off-road vehicle recreation.
  - b) Undeveloped highly disturbed BLM land used primarily for off-road vehicle recreation.

- 17. The Facility is on the western side of the Salton Sea, approximately 3 miles west of State Highway 86S. The site lies between the Peninsular Ranges Geomorphic Province to the west, and the Salton Trough to the east, which forms part of the Colorado Desert Geomorphic Province. The Imperial Valley is essentially a flat featureless alluvial basin along its western and eastern boundaries. Below the alluvial cover of Imperial Valley lies an unexposed succession of Tertiary and Quaternary sedimentary rocks thought to be at least 20,000 feet thick. Surface sediments consist of Holocene clay and silt alluvium grading to sandy gravel near the mountains.
- 18. During Quaternary time, from approximately 13,000 years ago to several hundred years ago, the central Imperial Valley, including the site, was covered by Lake Cahuilla, as a result of periodic overflow from the Colorado River into the Salton Basin. Sediments from Lake Cahuilla consist primarily of silt and clay.
- 19. Active fault zones occur in the Valley. The principal fault zones consist of: (1) the San Andreas system which parallels the northeast margin of the Salton Trough; (2) the San Jacinto fault zone which includes the Clark and Coyote Creek faults; (3) the Elsinore fault zone along the southwest edge of the trough; and (4) the Brawley fault zone, which includes the Imperial, Superstition Hills, and Superstition Mountain faults. With the exception of the Brawley fault zone, the fault zones exhibit a northwest-southeast trend, physiographic evidence of recent Holocene activity and right-lateral displacement.
- 20. The Clark segment of the San Jacinto Fault, located 8.2 miles west of the site, is the closest known active fault trace. The estimated characteristic earthquake moment magnitude for the San Jacinto Fault is 7.2 (Landmark, 2008).
- 21. Site investigations conducted by Landmark (2008, 2009 and 2011) concluded there was no Holocene faulting on site or within 200 feet of the proposed footprint of the 287 acre expansion and the potential for ground rupture during the lifetime of the proposed project was considered low.
- 22. The climate of the region is arid. Climatological data obtained from measurements from 1951 to 1980 indicate an average seasonal precipitation of 2.5 inches and an average annual pan evaporation rate greater than 50 inches.
- 23. The wind direction follows two (2) general patterns:
  - a. Seasonally from fall through spring, prevailing winds are from the west and northwest. Most of these winds originate in the Los Angeles basin area. Humidity is lowest under these conditions.
  - b. Summer weather patterns are often dominated by an intense, heat-induced low pressure area that forms over the interior deserts, drawing air from the area to the south of the Facility. Humidity is highest under these conditions.
- 24. Federal regulations for storm water discharges were promulgated by the U.S. Environmental Protection Agency (40 CFR Parts 122, 123, and 124). The regulation require specific categories of facilities which discharge storm water associated with industrial activity to obtain NPDES permits and to implement Best Conventional Pollutant Technology (BCPT) to reduce or eliminate industrial storm water pollution.

- 25. There are no perennial natural surface water features at the site within the 287-acre expansion. The western extension of Surprise Wash crosses the extreme southeastern corner of the 320-acre parcel. The Discharger is proposing a 200-foot set back from the 100-year flood limit of the wash.
- 26. The surface drainage from the WMU is controlled and directed into the drainage system via berms, ditches, flumes and culverts. The WMU has been contoured to minimize ponding of water in interior areas and to prevent uncontrolled runoff from eroding exterior slopes. Surface drainage from exterior slopes along the west, north and a portion of the east side of the 287-acre expansion will flow in a perimeter drainage ditch to a retention basin located at the northeastern corner of the Facility. Surface drainage from the south, and a portion of the eastern side of the site, will flow to a retention pond located near the southeastern corner of the Facility.
- 27. The State Water Board adopted Order 97-03-DWQ (General Permit CAS000001) specifying WDRs for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent (NOI) by industries to be covered under the Permit. The Discharger is subject to Order 97-03-DWQ and any replacement Order. The Discharger submitted a Storm Water Pollution Prevention Plan as part of the JTD, which provides details as to the BMPs that will be used to ensure compliance with Order 97-03-DWQ.
- 28. The Water Quality Control Plan for the Colorado River Basin Region of California was adopted on November 17, 1993 and designates the beneficial uses of ground and surface waters in this Region. The Facility is located in the West Salton Sea Hydrologic Unit. The beneficial uses of groundwater in the West Salton Sea Hydrologic Unit are:
  - a. Municipal (MUN)<sup>1</sup>
  - b. Industrial (IND)

- 30. The Discharger will accept municipal solid waste (MSW) from Imperial County and adjacent Counties of San Diego, Riverside, San Bernardino, Los Angeles and Orange County. The Discharger will also accept limited waste originating in Mexico that have been seized by US Customs or legally imported by US-Based transnational companies for in-country disposal under requirements of the 1994 North American Free Trade Agreement.
- 31. The Discharger reports that currently accepted waste types include residential refuse, commercial solid waste, industrial wastes, agricultural waste, construction and demolition debris, inert waste materials and tires, and that unacceptable types of waste are any hazardous or designated waste, except the designated waste of treated wood waste, as specified in the California Health and Safety Code (H&S Code) Sections 25143.1.5 and 25150.7. As designated waste, treated wood waste will be disposed in a dedicated area of each composite lined cell of the WMU designed pursuant to Title 27, California Code of Regulations (CCR) to accept that type of waste.
- 32. The County of Imperial Planning Department, acting as the Lead Agency under the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.), prepared an Environmental Impact Report (EIR) for the proposed landfill expansion

<sup>&</sup>lt;sup>1</sup> The actual municipal usage is limited to only a small portion of the ground water unit

project. On October 9, 2012, prior to approving the project, the County of Imperial certified that the final EIR for the proposed project was completed in compliance with CEQA; the final EIR was presented to the Imperial County Board of Supervisors, and that decision-making body reviewed and considered the information contained in the final EIR prior to approving the project; and the final EIR reflects the County's independent judgment and analysis. On October 9, 2012, the County filed a notice of determination of its decision to approve the project. Conditional Use Permit (CUP) Number 10-0002 was issued by the County of Imperial Board of Supervisors on October 19, 2012. As a Responsible Agency under CEQA, the Regional Water Board has considered the EIR and the potential impacts to water quality identified and addressed by the County of Imperial. The Regional Water Board has concluded that compliance with these waste discharge requirements will prevent any significant impacts to water quality.

- 33. Data from Geo-Logic's (2009) hydrogeologic investigation of the proposed expansion indicates groundwater occurs between 10 and 57 feet below ground surface and flows in a northeasterly direction. The groundwater at the site is saline with total dissolved solids (TDS) concentration ranging from 3,000 to 30,000 mg/L and is not presently beneficially used.
- 34. The facility currently has groundwater monitoring wells that are used to evaluate the groundwater quality. The monitoring and reporting requirements in Monitoring and Reporting Program (MRP) R7 2013-0048 and revisions thereto, are necessary to determine compliance with these WDRs and to determine the facility's impacts, if any, on receiving water.
- 35. The proposed project as described in the 2012 EIR is the 287-acre expansion. The mitigation measures identified in the CEQA documents and industry design standards set forth in this Order will reduce any significant environmental impacts of the project to less than significant levels.
- 36. The Regional Water Board has notified the discharger and all known interested agencies and persons of its intent to issue these WDRs and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
- 37. The Regional Water Board in a public meeting heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED that Order R7-2006-0007 be rescinded, except for enforcement purposes, and in order to meet the provisions contained in Division 7 of the California Water Code, RCRA Subtitle D, and regulations adopted thereunder, and the provisions of the Federal Clean Water Act, and regulations and guidelines adopted thereunder, the discharger shall comply with the following in the discharge of waste:

#### A. Specifications

- 1. The treatment or disposal of wastes at this WMU shall not cause pollution or nuisance as defined in Sections 13050(I) and 13050(m) of Division 7 of the California Water Code.
- "Treated wood" wastes may be disposed in the WMU, but only in those dedicated portions of lined areas of the WMU equipped with a composite liner and leachate collection and removal system and shall be handled in accordance with the requirements set forth in

California Health and Safety Code Section 25143.1.5, Section 25150.7, or Title 27 CCR, whichever is applicable. "Treated wood" means wood that has been treated with a chemical preservative for the purposes of protecting the wood against attacks from insect, microorganisms, fungi and other environmental conditions that can lead to decay of the wood, and the chemical preservative is registered pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C Sec 136 et seq.). This "treated wood" may include, but not be limited to, waste wood that has been treated with chromate copper arsenate (CCA), pentachlorophenol, creosote, acid copper chromate (ACC), ammoniacal copper arsenate (ACA), ammoniacal copper zinc arsenate (ACZA), or chromated zinc chloride (CZC).

- If a verifiable release of chemical constituents associated with treated wood is detected from the dedicated portion of the unit where treated wood is disposed, the disposal of treated wood will be terminated at the unit until corrective action measures mitigate the release.
- 4. The WMU shall be protected from any washout or erosion of wastes or covering material and from inundation due to rainfall.
- 5. Drainage features within the WMU shall be designed to control the runoff from a 100-year, 24-hour, storm event.
- 6. The discharger shall implement a self-monitoring and reporting program in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the WMU, or any unreasonable impairment of beneficial uses associated with (caused by) discharges of waste to the WMU.
- 7. Wastes shall not be discharged on any ground surface that is less than five (5) feet above the highest anticipated ground water level.
- 8. Pursuant to Title 27 of the California Code of Regulations, each future phase of the WMU of this Facility shall have:
  - a. an underdrain system (when seeps or moist soil conditions exist in the liner subgrade)
  - b. a 40 mil minimum thickness HDPE (or equivalent) moisture barrier
  - c. a minimum 5 feet engineered soil/clay liner above the moisture barrier
  - d. a 60 mil, minimum thickness HDPE (or equivalent) primary liner
  - e. a leachate collection and removal system
  - f. a gas collection/removal system; and
  - g. a groundwater and landfill gas monitoring system.
- 9. The discharger shall provide interim cover to the raw MSW as follows:
  - a. Daily cover a minimum of six (6) inches of compacted soil, or alternative material, placed over the exposed waste at least once in every 24 hours unless continuous operations 24/7 have been implemented, at which time cover soils or ADC shall be applied to the compacted waste as cell fill sequence grades are achieved.

- b. Intermediate cover a minimum of 12 inches of compacted soil, or equivalent, placed over the waste area that has been inactive for period greater than 180 days. Existing daily cover may be used as part of the intermediate cover.
- 10. The intermediate and daily covers for the WMU shall:
  - a. Control disease vectors pursuant to 40 CFR Section 258.22;
  - b. Minimize infiltration into the WMU;
  - c. Control erosion and convey run-off to the storm water management system at manageable, non-scouring flow rates;
  - d. Control and contain landfill gas; and
  - e. Minimize the potential for windblown litter and particulates.
- 11. Any alternative materials used for daily or intermediate cover which may have a different characteristic and thickness, compared to the requirements of Specifications A.9 and A.10 of this Order, shall be approved by the Regional Water Board's Executive Officer prior to use. The discharger shall demonstrate that the alternative material and thickness will control disease vectors, without presenting a threat to human health and the environment.
- 12. All LCRS's shall be designed to:
  - a. Function without clogging throughout the active life of the WMF and during the postclosure maintenance period,
  - b. Maintain less than 1-foot depth of leachate over any of the landfill liners, except for conditions where the first lift of the MSW has not been placed in a segment.
  - c. Remove twice the maximum anticipated daily volume of leachate from the landfill.
  - d. Be of sufficient strength and thickness to prevent collapse under the pressures exerted by the overlying waste, waste cover material, and by any equipment used at the landfill.
- 13. The discharger shall test the LCRS on an annual basis. A detailed plan for testing the LCRS performance shall be submitted to the Regional Water Board's Executive Officer for approval. The discharger shall submit the test results to the Regional Water Board.
- 14. Any monitoring and reporting of the leachate shall be done as specified in the self-monitoring program and revisions thereto.
- 15. The discharger shall place any leachate removed from the LCRS sumps into a leachate management system as specified below in Specification A.16 of this Order.
- 16. Prior to operation, the discharger shall submit a detailed Leachate Management Plan for the Facility acceptable to the Regional Water Board's Executive Officer. This plan shall estimate the quantity of leachate produced and stored, and describe the ultimate disposal point of the leachate. The report shall evaluate the quantity of the leachate produced from each WMU and determine the maximum safe operating level for the leachate containment facilities. If leachate collects, a plan shall be provided with a detailed assessment of alternative disposal methods together with a plan for implementation of preferred alternatives. If re-circulation of leachate is to be considered, the discharger must demonstrate that the quantity of leachate being re-circulated will not result in a solid-to-liquid ratio less than 5:1 by weight in that WMU at the Facility.

- 17. The discharger shall ensure that the foundation of the WMU and the structures which control leachate, surface drainage, erosion and gas mitigation for the WMU are constructed and maintained to withstand conditions generated during a Maximum Probable Earthquake (MPE) event without damage that is not readily repairable. Leachate sumps and interim and final berms shall be designed and constructed to withstand the MPE at the Facility.
- 18. For any material used for all or any portion of the leachate detection/monitoring system, base liner, LCRS, horizontal and vertical gas collection/removal systems, and daily, intermediate, and final cover, the discharger must demonstrate to the satisfaction of the Regional Water Boards' Executive Officer that the material is compatible chemically and biologically with the MSW leachate. The discharger must also demonstrate, to the satisfaction of the Regional Water Board's Executive Officer, that material used for any portion of the WMU has proper shear strength to withstand all the applicable normal and shear forces exerted onto these materials during and after the closure of the Facility.
- 19. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the Facility inoperable.
- 20. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, shall not contact or percolate through the waste discharged at this WMU. Storm water drainage ditches shall be constructed to ensure that all non-contact surface water runoff is diverted away from the disposal area, such that it does not contact the MSW or leachate (except for contact surface water, which shall be contained).
- 21. The exterior surfaces of the WMU area, including daily cover, and intermediate and final covers, shall be graded and maintained to promote lateral run-off of precipitation and to prevent ponding.
- 22. The discharger shall follow the Water Quality Protection Standards (WQPS) for detection monitoring established by the Board in this Order pursuant to Title 27 Section 20390. The following are five (5) parts of WQPS as established by the Board (the terms of art used in this Order regarding monitoring are defined in Part 1 of the attached MRP R7 2013-0048 and revisions thereto, hereby incorporated by reference.):
  - a. The discharger shall test for the monitoring parameters and Constituents of Concern (COCs) listed in MRP R7 2013-0048, and revisions thereto, for any samples taken from the following:
    - 1. Water bearing media (i.e., groundwater and surface water)
    - 2. Perimeter gas monitoring system
  - b. Concentration Limits The concentration limits for each monitoring point assigned to a detection monitoring program (MRP Part II), and the concentration limit for each Constituent of Concern (or monitoring parameters) shall be the background values as obtained during that reporting period (defined in MRP Part I).
  - c. Monitoring points and background monitoring points for detection monitoring shall be those listed in Part II of the attached MRP R7- 2013-0048 and any revised MRP approved by the Regional Water Board's Executive Officer.

- d. The point of compliance is the property boundary or as otherwise approved by the Regional Water Board's Executive Officer, and extends down (vertically) through the zone of saturation.
- e. Compliance period The estimated duration of the compliance period for the Landfill is 6 years. Each time the Standard is broken (i.e., a release is discovered), the WMU begins a compliance period on the date the Board directs the discharger to begin an Evaluation Monitoring Program (EMP). If the discharger's Corrective Action Program (CAP) has not achieved compliance with the Standard by the scheduled end of the compliance period, the compliance period is automatically extended until the WMU has been in continuous compliance for at least three (3) consecutive years.
- 23. The discharger shall report monitoring parameters from the constituents listed in MRP R7 2013-0048, and future revisions thereto. These monitoring parameters are subject to the most appropriate statistical or non-statistical tests under MRP R7 2013-0048, Part III A, and any revised MRP approved by the Regional Water Board's Executive Officer.
- 24. The discharger shall, for any future expansion, install additional ground water, soil-pore liquid, or leachate monitoring devices to comply with the MRP R7 2013-0048 and revisions thereto. The discharger shall submit to the Regional Water Board's Executive Officer, 120 days prior to construction, a plan for these installations.
- 25. Methane, carbon dioxide and other landfill gases shall be adequately vented, removed from each WMU of the Facility, or otherwise controlled to prevent the danger of explosion, underground fires, nuisance conditions, or the impairment of beneficial uses of water due to the migration of gas through the vadose zone.
- 26. The discharger shall submit to the Regional Water Board's Executive Officer for review and approval the "Final Construction Design Drawings and Specifications" at least 120 days prior to initiation of construction of each future phase of the landfill. The plans and specifications shall take into consideration the following:
  - a. Engineering Designs and Analysis:
    - 1. Interim and final slopes shall have a minimum factor of safety of 1.50 for static conditions.
    - 2. Interim and final slopes shall have a minimum factor of safety of 1.50 for dynamic conditions.
    - 3. In lieu of Specification A.26.a.2 above, (i.e., under dynamic conditions) the discharger shall demonstrate to the satisfaction of the Regional Water Board's Executive Officer that the maximum permanent displacement that could be expected to occur for the MPE and 40 CFR Section 258.14 (b) event loading should not jeopardize the integrity of the final cover, base liner, monitoring and containment systems.
    - 4. Details of the minimum requirements (i.e., shear strength) associated with each element of the WMU required to meet slope stability criteria shall be provided.

- 5. Slope stability analyses shall explicitly model the actual WMU slopes, including benches. The actual residual shear strengths corresponding to the specific liner interfaces shall be employed in the analyses.
- 6. Seismic and static slope stability calculations for all slopes under the appropriate range of loading conditions shall be provided.
- 7. Calculations of minimum factor of safety for interim and final slopes, pursuant to Specification A.26.a.1 and 2 above shall be provided.
- 8. Leachate head calculations shall be provided.
- 9. Drainage system flow calculations shall be provided.
- 10. Settlement analyses of the foundation, cover system, and waste shall be provided.
- 11. Analyses indicating capability of the material used for the containment system such as VLDPE, HDPE, GG, Geotextile, or any other material to withstand the anticipated overburden pressure plus the weight of any operating equipment used that could cause axial loading on the containment system shall be provided.
- 12. Details of liquefaction mitigation measures shall be provided.
- 13. Any other applicable analyses shall be provided for approval..
- b. Construction Drawings and Specifications Detailed sets of construction drawings and specification with sufficient detail to build the proposed 287-acre expansion WMU containment system shall be provided. The construction plans shall include horizontal coordinates (± 0.1 ft.), elevations (± 0.01 ft), and grades (± 0.1 percent). The plan should show locations of all interim and permanent berms, earthen and concrete channels, bench v-ditches, trapezoidal down drains, sumps, benches, pipe connection details, liner overlaps, lines seaming or welding, and layer minimum thickness.
- c. Detailed Fill Plan The fill plan detailing the limits of acceptable interim geometrics for all locations of the WMU shall be provided. All phases of construction where waste and/or fills are being placed over the completed liner system shall be considered to be interim waste slopes. Such slopes shall be designed to meet a minimum slope stability factor of safety pursuant to Specification A.26.a. A range of maximum acceptable slopes for different fill heights and locations are acceptable.
- d. Construction Quality Control/Quality Assurance A Construction Quality Control/Construction Quality Assurance (CQC/CQA) plan to be implemented during construction of the containment system by an independent engineering firm that is not owned by the discharger shall be provided. This plan should contain, at a minimum, the following:
  - 1. Quality control/quality assurance procedures for each geosynthetic and fill material to be incorporated within the WMU liner and cover system.

- 2. Detailed testing, inspection, and acceptance criteria for each geosynthetic and fill material to be incorporated within the WMU liner and cover system.
- 3. Detailed foundation acceptance criteria and acceptable interim waste slopes.

### 4. A plan for:

- a. Performing interface shear strengths, prior to liner installation, using the specific geosynthetic material specified for different elements of the liners. The test shall be performed for the range of normal stress, moisture conditions, and displacement rates, which simulate actual field conditions;
- b. The determination of shear strength values which must be equal to or greater than the shear strengths employed in the slope stability analyses performed during final design; and
- c. A written determination by a Registered Geologist, or Certified Engineering Geologist, licensed in the State of California, of Holocene fault absence following grading, prior to development of any portion of the WMU.
- d. Contractor Quality Control A specification indicating that each contractor or manufacturer is responsible for implementing their own quality control plan as required by the detailed construction specifications, shall be provided. All material and workmanship shall be tested in accordance with the quality control/quality assurance plan. All tests may be observed by the CQC/CQA firm and all test results shall be submitted to the CQC/CQA firm for review and approval.

## e. Field Changes:

- 1. Construction drawings and specifications shall be developed to minimize, to the extent feasible, the need for "significant field changes". "Significant field changes include, but are not limited to:
  - a. Changes in material specifications;
  - b. Changes in soil liner compaction criteria;
  - c. Changes in liner system component thickness;
  - d. Increase in side slope grades;
  - e. Decrease in bottom slope grades;
  - f. Decrease or increase in the height of the slopes;
  - g. Decrease or increase in the width of benches; and
  - h. Changes to the WMU grading plan.
- 2. A plan outlining the following steps shall be taken if a "significant field change" is determined necessary:

- a. The contractor shall notify the construction manager or the owner regarding the proposed change(s).
- b. The construction manager or owner shall have the design engineer review the proposed change. The review shall include any engineering analysis that needs to be done to ensure that all design criteria are met with the proposed change.
- c. The discharger shall submit the proposed change to the Regional Water Board's Executive Officer for review and approval. The proposed change shall be accompanied by an explanation for the changes, a copy of the engineering analysis, and all changes to the design drawings and specifications.
- d. The Regional Water Board's Executive Officer shall review the proposed change in a timely fashion and must approve the proposed change before it can be accepted. Such approval will not be given unless supported by slope stability analyses demonstrating that the field changes do not result in slope stability factors of safety less than the minimum acceptable values.
- 27. Adequate measures shall be taken to ensure that no part of the liner system (i.e., HDPE, VLDPE, GT) is punctured during construction, operation, or closure/post-closure activities.
- 28. The discharger shall have on-site at all time during construction of expansion to the Facility, a qualified team to perform CQA/CQC over all aspects of foundation excavating/grading and liner system construction to ensure that the foundation and liner systems are being built in accordance with the approved design. All observations and test results shall be periodically submitted to the Regional Water Board's Executive Officer after construction. The Regional Water Board's Executive Officer shall retain the right to have Board representatives on-site during all aspects of the WMU liner system construction. If during the course of construction the discharger desires to make a "significant field change" to the design, the discharger shall submit all necessary engineering calculations, drawings and/or specifications to the Regional Water Board's Executive Officer for his review and approval. If the Regional Water Board's Executive Officer, or his agent, deems it necessary to have the proposed change reviewed by a third party, the discharger shall be responsible for paying for any additional and reasonable costs and fees that may be incurred and that are not covered by other funding sources. Reasonable costs and fees may include field visits and observations, review of the discharger's changes, including drawing, specifications and/or analyses, QA/QC, and travel. Qualifications of the third party must be acceptable to the discharger and approved by the Regional Water Board's Executive Officer.
- 29. Waste shall not be placed in any area of the WMU until the Board's Executive Officer has approved the detailed design plans and construction quality assurance plan for construction of the containment structures, and has received written certification by a California Registered Civil Engineer or Certified Engineering Geologist that the structures have been constructed in accordance with those plans.

- 30. A periodic load-checking program shall be implemented to ensure that hazardous waste is not discharged at the Facility. The program must be submitted to the Regional Water Board's Executive Officer for approval. The program shall include, but not be limited to:
  - a. Random loads to be checked;
  - b. Description of training program for on-site personnel;
  - c. Record keeping and reporting program;
  - d. Program implementation schedule; and
  - e. Disposal options for waste found not to be in compliance with the Order.

Hazardous wastes shall be properly manifested and transported off-site within 90 days of accumulating 90 kgs for disposal at a properly permitted facility.

- 31. Wastes shall not be placed in or allowed to remain in ponded water from any source.
- 32. In order to minimize the potential for windblown litter and particulates from the facility site that would pollute surface waters off the Facility site, the MSW:
  - a. Shall be compacted into the working face of the WMU as soon as practicable and covered with a daily cover promptly.
  - b. Shall have a minimum of 6 inches of compacted soil or approved alternatives used as a daily cover.
  - c. Shall have a litter pickup and disposal program implemented and in adjacent off-site areas on the days of operation.
  - d. Shall have litter control fencing installed around the Facility and the landfill footprint.
- 33. The discharger shall remove and relocate any waste that is discharged at this facility in violation of these requirements.
- 34. The discharger shall maintain visible monuments identifying the boundary limits of each currently active area and the entire WMU.
- 35. Public contact with MSW and/or leachate shall be prevented through such means as fences, signs and other acceptable alternatives.
- 36. MSW shall be confined to the Facility as described on the attached site map.
- 37. Waters used for dust control and for fire suppression shall be limited to amounts necessary for these purposes, so as to minimize any potential for infiltration of these waters into the WMU.
- 38. Petroleum fuels, recovered solvents, and other liquids shall be stored in appropriate containers within the facility and managed and maintained in accordance with applicable federal, state and local regulations. The discharger shall establish procedures, acceptable to the Regional Water Board's Executive Officer, for rapid remediation of minor petroleum hydrocarbon spills from vehicles used for construction or MSW handling at the Facility.

39. If there is statistically significant evidence of a release from the WMU as defined in Title 27, the discharger shall monitor the indicated constituent(s) in tracking mode instead of detection mode, in accordance with Part I.E.2d of the attached MRP R7 2013-0048 and future revisions thereto.

#### **B. Prohibitions**

- 1. The discharge of waste to land not owned/operated by the discharger is prohibited.
- 2. The discharge of waste to areas outside the defined 287-acre lined Waste Management Unit (WMU) is prohibited.
- 3. The discharge of waste to areas within; and within a 200-foot setback from, the 100-year flood zone is prohibited.
- 4. The discharge of the following wastes as defined in Title 27, Chapter 3 of the California Code of Regulations (hereinafter referred to as Title 27) is prohibited at the Salton City Landfill:
  - a. Hazardous waste as defined in California Code of Regulations Title 22, Section 66261, except for waste that is hazardous only due to the friable asbestos content;
  - b. Designated waste as defined in Title 27, except treated wood waste as detailed in Specification A.2.
  - c. Liquid waste (moisture content more than 50% free liquid) as defined in Title 27;
  - d. Recyclable White goods (i.e. large intact household appliances);
  - e. Infectious wastes;
  - d. Radioactive waste: and
- 3. The discharger shall neither cause nor contribute to the following conditions:
  - a. Contamination or pollution of ground water via the release of waste constituents in either liquid or gaseous phase.
  - b. Increase in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil or other geologic material outside of the WMU, if such waste constituents could migrate to waters of the State, in either liquid or gaseous phase, and cause contamination, pollution, or nuisance.
- 4. The discharge of waste to surface water, surface water drainage courses, or to ground water is prohibited.
- 5. The discharge or deposit of wastes that can cause erosion or decay, or otherwise reduce or impair the integrity of containment structures is prohibited.

6. The discharge or deposit of waste which when mixed or commingled with other wastes in the landfill, could produce chemical reactions that create heat or pressure, fire or explosion, toxic by-products, or reaction which, in turn: (1) require a higher level of containment than provided by this WMU; or (2) impair the integrity of the containment structure, is prohibited.

#### C. Provisions

- The discharger shall comply with all applicable regulations of Title 27 and the Resource Conservation and Recovery Act (RCRA) Subtitle D that are not specifically referred to in this Order. The discharger shall also comply with all applicable regulations relative to disposal of treated wood waste, including the California H&S Code and the California Water Code.
- 2. The discharger shall comply with all Specifications, Prohibitions, and Provisions of this Order immediately upon adoption.
- 3. This Order does not authorize violation of any federal, State, or local laws or regulations.
- 4. The discharger is the responsible party for the WDRs, and MRP R7 2013-0048, and revisions thereto, for the WMU; and must comply with all of the conditions of this Order. Any noncompliance with this Order constitutes a violation of the Porter-Cologne Water Quality Control Act and is grounds for enforcement actions, including Orders or court orders, requiring corrective action or imposing civil monetary liability or modification or revocation of these WDRs by the Regional Water Board.
- 5. Prior to any change of ownership or management of this operation, the discharger shall transmit a copy of this Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Water Board.
- 6. This Order does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws.
- The Regional Water Board considers the property owner to have a continuing responsibility for correcting any problems that may arise in the future as a result of this waste discharge.
- 8. The discharger shall submit to the Regional Water Board's Executive Officer "Final Construction Design Plans and Specifications", as described in Specification A.26 of this Order.
- 9. The discharger shall comply with MRP No. R7 2013-0048, and future revisions thereto, as specified by the Regional Water Board's Executive Officer.
- 10. The discharger shall ensure that all WMU operating personnel are familiar with the appropriate portions of the content of this Order, and shall maintain a copy of this Order at the Facility.

- 11. The discharger shall allow the Regional Water Board, or any authorized representative, upon presentation of credentials and other documents as may be required by law, to:
  - a. Enter upon the premises regulated by this Order, or the place where records are kept under the conditions of the Order;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the Order;
  - c. Inspect a reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operation regulated or required under this Order; and
  - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at this Facility.
- 12. The Facility shall be readily accessible for sampling and inspection.
- 13. The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control that are installed or used by the discharger to achieve compliance with this Order. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the discharger only when necessary to achieve compliance with the conditions of this Order.
- 14. Adequate measures shall be taken to assure that unauthorized persons are effectively excluded from contact with the waste disposal facilities.
- 15. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.
- 16. The discharger shall immediately notify the Regional Water Board of any flooding, slope failure or other change in site conditions that could impair the integrity of waste containment facilities or of precipitation and drainage control structures.
- 17. The discharger shall maintain a legible record using a reporting form approved by the Regional Water Board's Executive Officer of the volume and weight (in tons) of MSW received at the Facility, and the manner and location of disposal.
- 18. All containment structures, LCRS, monitoring systems, and erosion and drainage control systems shall be designed and constructed under supervision of a California Registered Civil Engineer or certified engineering geologist and shall be certified by the individual as meeting the requirements of this Order.
- 19. Two years prior to the anticipated closure of the Facility, or any portions thereof, the discharger shall submit to the Regional Water Board, for review and approval by the Regional Water Board's Executive Officer, a closure and post-closure maintenance plan in accordance with Section 21769 of Title 27.
- 20. The closure plan shall include:

- a. Facility location map;
- b. Topographic maps;
- c. Maximum extent of closures;
- d. Current monitoring and control systems;
- e. Land uses:
- f. Estimated closure date and schedule;
- g. General closure description;
- h. Other special requirements;
- i. Revised closure cost estimates (if appropriate); and
- j. Any other applicable requirements as specified in Title 27.
- 21. The post-closure maintenance plan shall include:
  - a. Security and fencing;
  - b. Survey monuments;
  - c. Final Cover;
  - d. Storm water management system;
  - e. Leachate collection and removal system (LCRS);
  - f. Leachate management system;
  - g. Active gas extraction system, if necessary;
  - h. Vadose zone leachate monitoring system;
  - i. Vadose zone soil-pore gas monitoring system, if necessary; and
  - j. Groundwater quality monitoring system.
- 22. Annually, the discharger shall continue to review and revise as necessary the existing, approved detailed post-earthquake inspection and corrective action plan to be implemented in the event of any earthquake generating significant ground shaking (i.e., Modified Mercalli Intensity V or greater) at or near the Facility. The Plan shall continue to describe the containment features, groundwater monitoring, leachate control facilities, storm water management system, and gas monitoring facilities, potentially impacted by the static and seismic deformations of the WMU. The plan shall continue to provide for reporting results of the post-earthquake inspection to the Regional Water Board within 15 working days of the occurrence of the earthquake. Immediately after an earthquake event causing damage to the Facility, the corrective action plan shall be implemented, and the Regional Water Board shall be notified of any damage.
- 23. Unless otherwise approved by the Regional Water Board's Executive Officer, all water quality monitoring analyses shall be conducted at a laboratory certified for such analyses by the California State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidance Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.
- 24. The discharger shall furnish, under the penalty of perjury, technical monitoring program reports, and such reports shall be submitted in accordance with the specifications prepared by the Regional Water Board's Executive Officer. Such specifications are subject to periodic revision as may be warranted.
- 25. The discharger shall submit a Notice of Intent (NOI) to the State Water Resources Control Board to be covered under the Statewide General NPDES permit for Storm Water Discharges associated with Industrial Activities, Order 97-03DWQ, NPDES No. CAS000001

(General Industrial Permit). The discharger shall comply with all the discharge prohibitions, receiving water limitations, and provisions of the General Industrial Permit including those in any future revisions.

- 26. Prior to any expansions, the discharger shall submit a revised sampling and monitoring plan for storm water discharges to the Regional Water Board's Executive Officer for review and approval not less than 90 days prior to commencement of construction. The plan shall meet the minimum requirements of Section B, MRP Requirements of the Statewide General Industrial Permit.
- 27. The discharger's construction activity is subject to the new CGP, which became effective on July 1, 2010, since that activity is scheduled to commence after adoption of this Order. To obtain coverage under the new CGP, the discharger is required to electronically file Permit Registration Documents (PRDs), which includes a Notice of Intent (N01), Storm Water Pollution Prevention Plan (SWPPP), and other compliance-related documents required by the CGP, and mail the appropriate permit fee to the State Water Resources Control Board,
- 28. This Order is subject to Regional Water Board review and updating, as necessary to comply with changing State or Federal laws, regulations policies or guidelines, or changes in the discharge characteristics.
- 29. At any time, the discharger may file a written request (including appropriate supporting documents) with the Regional Water Board's Executive Officer, proposing appropriate modifications to the MRP. The request may address changes:
  - a. To any statistical method, non-statistical method, or retest method used with a given constituent or parameter;
  - b. To the manner of determining the background value for a constituent or parameter;
  - c. To the method for displaying annual data plots;
  - d. To the laboratory analytical method used to test for a given constituent or parameter;
  - e. To the media being monitored (e.g., the addition of soil-pore gas to the media being monitored);
  - f. To the number or placement of monitoring points or background monitoring points for a given monitored medium; or
  - g. To any aspect of monitoring or QA/QC.

After receiving and analyzing such a report, the Regional Water Board's Executive Officer shall either reject the proposal for reasons listed, or shall incorporate it, along with any necessary changes, into the attached MRP. The discharger shall implement any changes in the MRP proposed by the Regional Water Board's Executive Officer upon receipt of a revised MRP.

30. The discharger shall submit to this Regional Water Board and to the California Department of Resources Recycling and Recovery (CalRecycle) evidence of Financial Assurance for Closure and Post-Closure pursuant to Section 20950 of Title 27.

- 31. Financial assurances for post-closure shall be as determined by CalRecycle in accordance with appropriate regulations. The post-closure maintenance period shall be at least 30 years, or as long as the waste poses a threat to water quality.
- 32. Within 180 days of the adoption of this Order, the discharger shall submit to the Regional Water, in accordance with Section 20380(b) of Title 27, assurances of financial responsibility acceptable to the Regional Water Board's Executive Officer for initiating and completing corrective action for all known or reasonably foreseeable releases from the Facility.
- I, Robert Perdue, 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, Colorado River Basin Region, on May 16, 2013.

Original signed by

ROBERT PERDUE
Executive Officer