

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF May 14, 2004

ITEM NUMBER: 32

**SUBJECT: Revised Waste Discharge Requirements Chicago Grade Class III
Landfill, San Luis Obispo County – Order No. R3-2004-0002**

KEY INFORMATION:

Location: Four miles east of the City of Atascadero
Type of Waste: Nonhazardous solid waste.
Design Capacity: 2.9 million cubic yards of waste
Remaining Capacity: 1.7 million cubic yards
Disposal: Land based by fill module method, canyon fill
Liner System: Both a lined (existing Module 2 and proposed Modules 3, 4 and 5) and an unlined (Module 1) waste management unit (WMU).
Existing Orders: Waste Discharge Requirements, Order No. 94-80 and 93-84.

SUMMARY

Proposed Waste Discharge Requirements Order No. R3-2004-0002 ("Proposed Order"), see Attachment 1, and proposed Monitoring and Reporting Program No. R3-2004-0002 ("Proposed MRP"), see Attachment 2, for the Chicago Grade Class III Landfill are being updated to reflect the Discharger's proposed 15 acres lateral expansion (proposed Modules 3, 4 and 5). Areas of interest include:

- The proposed expansion will be constructed and operated in compliance with California Code of Regulations (CCR) Title 27, (Title 27) and Code of Federal Regulations Title 40 Part 258 (40CFR258).
- The proposed expansion will be constructed based on the Regional Water Quality Control Board ("Regional Board") Executive Officer ("Executive Officer") reviewed and approved Plans and Specification and a Construction Quality Assurance Plan.
- The Proposed Order removes the Landfill from the list of landfills subject to Regional Board's Order No. 93-84 "Waste Discharge Requirements Amendment for all Municipal Solid Waste Landfills in the Central Coast Region."

DISCUSSION

Chicago Grade Landfill is classified as a Class III Landfill approved for Nonhazardous Solid Waste discharge, pursuant to Title 27 §20220. The Chicago Grade Landfill and Recycling, LLC owns the Chicago Grade Class III Landfill ("Landfill"). Chicago Grade Landfill, Inc. operates the Landfill. Chicago Grade Landfill and Recycling, LLC and Chicago Grade Landfill, Inc. are collectively referred to as "Discharger." Mr. Michael Hoover (51% owner), Mr. William Underwood (24.5% owner) and Mr. and Mrs. Craig Palonen (24.5% owner) are the owners of the Chicago Grade Landfill and Recycling, LLC and Chicago Grade Landfill, Inc.

The Regional Board has regulated the Landfill since June 1970. The Landfill is currently regulated under Waste Discharge Requirements Order No. 94-80 ("Order 94-80"), adopted by the Regional Board on September 9, 1994, and Monitoring and Reporting Program No. 94-80, issued by the Regional Board's Executive Officer on September 9, 1994.

FACILITY DESCRIPTION: The Landfill is located in San Luis Obispo County, at 2290 Homestead Road, approximately four miles northeast of the City of Atascadero, see Proposed

Order Attachment A and B. The Landfill is located approximately one and one-half miles east of the Salinas River.

The Landfill is privately owned and operated and serves the City of Atascadero and community of Templeton. Within the last year the Discharger constructed and is operating a waste transfer station south of the community of Nipomo and just north of the Santa Maria River. The Discharger's new transfer station will expand the Landfill's services to Guadalupe and portions of Nipomo.

The Landfill is located in hills east of the Salinas River Valley at elevations between 1,000 to 1,500 feet above mean sea level (MSL). The Landfill is situated on the east side of a small north-south trending canyon, which merges immediately north of the Landfill with a larger east-west trending unnamed canyon. Drainage from the unnamed canyon is westerly toward the Salinas River, which is located approximately one mile west of the Landfill.

The average annual precipitation is about 16 inches, based on rainfall data collected at the Landfill. The estimated potential annual evaporation rate at the Landfill is 31 inches.

Prior Order 94-80 identifies 45.4 acres of the Landfill as the "Permitted Boundary" and 28 acres (Module 1 and 2) as the "Designated Disposal Area." In order to be consistent with language used in Title 27, the Proposed Order changes the description "Permitted Boundary" to "Waste Management Facility" and includes the entire 188 acres owned by the Discharger. For clarity, Title 27 §20164 defines "Waste Management Facility" as the entire parcel of property at which discharge operations are conducted and may include one or more "Waste Management Units." Waste operations include the scale house, maintenance shop, green waste handling area and all other ancillary facilities related to discharge operations.

Similarly, the Proposed Order changes the description "Designated Disposal Area" to "Permitted Area for Waste Management Units" and includes both the existing 28 acres of Waste Management Units (Modules 1 and 2) and 15 acres of proposed Waste Management Units (Modules 3, 4 and 5). Title 27 defines "Waste Management Unit" as an area of land, or portion of a Waste

Management Facility, at which waste is discharged. The term includes containment features and ancillary features for precipitation and drainage control and for monitoring.

Existing Area: Unlined Module 1 has 21 acres of waste footprint on native soil. Module 2 has 2.5 acres of lined waste footprint and a leachate collection and removal system. As part of Module 2's construction, the Discharger elected to place about three acres of liner (60-mil low density polyethylene) over Module 1 waste, immediately adjacent to Module 2.

Expansion Area: The Discharger's proposed expansion (Module 3, 4 and 5) would have about 15 acres of waste footprint over native soil and against a 2:1 slope. The proposed expansion will be constructed in a progressively overlapping manner with Module 3 overlapping Module 1, Module 4 covering Module 3 and overlapping Module 1, and Module 5 on top of Module 4, see Proposed Order Attachment D.

A recycling area covers approximately five acres in the northeast corner of the Waste Management Facility as shown in the Proposed Order Attachment C.

The method of discharge at the Landfill has been area fill and cover. As of September 2003, total waste discharged at the Landfill (Module 1 and 2) is estimated at 1.2 million cubic yards.

The proposed 15-acre expansion (Module 3, 4 and 5) will extend the estimated remaining life of the Landfill by 15 years, until 2019, and increase the Landfill's waste capacity by 1.7 million cubic yards.

During preparation of the Proposed Order, Regional Board staff has worked with the Discharger on a slope stability analysis, pursuant to Title 27 §20310(g) and 21750(f)(5), for the proposed 15-acre expansion. The Discharger plans to begin and complete construction of Module 3 during the summer and fall of 2004. Grading for the expansion area began at the end of 2003.

Proposed Sludge Disposal: The Discharger has requested adding to the Proposed Order

provisions for allowing the discharge of dewatered sewage or water treatment sludge at the Landfill. The source of the dewatered sludge is the California Men's Colony wastewater treatment plant.

Dewatered sludges can only be discharged to waste management units equipped with a leachate collection and removal system (LCRS), pursuant to Title 27 §20220(c). Given the method of Landfill construction involving overlapping modules (described above), the Landfill's fill sequencing will complicate the discharge of dewatered sludge at the Landfill (e.g., dewatered sludge cannot be discharged into that portion of Module 3 that occurs over Module 1, unless an LCRS is installed between Module 1 and 3).

To assure that dewatered sludge is properly managed (discharged to lined units with a LCRS) at the Landfill, the Proposed MRP includes a requirement for reporting percent moisture, volume and weight discharged and the location where the sludge is discharged.

LAND USE: Land use within a one-quarter mile radius of the Landfill consists primarily of low-density rural residential usage, agricultural use (cattle grazing) and unimproved watershed areas. Several single-family residences are located along Homestead Road west of the Landfill.

GEOLOGY: A thick sequence of sedimentary rocks of the Monterey Formation and the Paso Robles Formation overlies a granitic basement rock from the Franciscan complex beneath the site. The Paso Robles Formation is approximately 300 feet thick at the eastern margin of the Landfill.

The Landfill overlies Quaternary age alluvium and Paso Robles Formation earth materials, which are primarily comprised of plastic, silty sand and gravelly silt. Alluvium is 12 to 87 feet thick beneath the existing waste footprint. A small portion of the western edge of Module 2 overlies Monterey Formation. The bedding in the Paso Robles Formation generally dips slightly to the east (3 to 18-degrees) and strikes north-northwest.

The Landfill is located 1 mile east of the Rinconada fault. The Hosgri and San Andreas

faults are located 24 miles west and east of the Landfill, respectively.

There is some dispute among California Engineering Geologists whether or not the Rinconada fault is active. There exists documented visual evidence suggesting the Rinconada maybe active (Lettis and Assoc., 2003). However, at this time there is no scientific evidence to definitively determine the status of the Rinconada fault. Consequently, Regional Board staff assumes the Rinconada is not active.

For purposes of designing the Landfill's containment system, the Rinconada fault is estimated to have a maximum magnitude of 7.3, and a peak horizontal ground acceleration at the Landfill of 0.36g at the site. If new evidence becomes available proving the Rinconada fault is active, Regional Board staff will reassess the Landfill's containment system designs.

There are two small north-south trending inactive faults located through the 15 acres expansion (proposed Module 3, 4 and 5). No known active (Holocene) faults are located within 200 feet of the Landfill, pursuant to 40CFR258.13.

SURFACE AND GROUND WATER: The Landfill is located within the Salinas Hydrologic Unit east of, and approximately 400 feet above the Salinas River floodplain. Surface water runoff in the general vicinity of the Landfill is predominantly toward the west to southwest. Drainage from the Landfill enters an unnamed ephemeral creek located immediately north of the Landfill, which flows west toward the Salinas River.

Runoff above the Landfill is diverted away from waste by "V" ditches. Surface water runoff from the active landfill area is directed to a siltation basin located immediately west of Module 2, see Proposed Order Attachment C. The overflow from the siltation basin flows to the unnamed ephemeral creek described above.

The site is not within the 100-year flood plain nor does it contain any designated wetlands.

The main groundwater producing formations are the alluvium and the Paso Robles Formation. The Monterey Formation is sufficiently fractured to be

water bearing. The permeability of the Paso Robles Formation and the alluvium at the Landfill is approximately 10^{-5} to 10^{-8} centimeters per second.

East of the Rinconada Fault and in the vicinity of the Landfill, about 20 domestic water supply wells have been identified, which are completed in the Monterey Formation. West of the Rinconada Fault and in the vicinity of the Landfill, numerous domestic wells have been identified, which are completed in the older alluvial deposits. Domestic supply wells located to the west of the Rinconada Fault are completed to depths of 300 to 400 feet (elevation 700 to 600 feet above mean sea level) and yield water at 20 to 100 gallons per minute.

Groundwater occurs at a depth of 60 to 150 feet beneath the Landfill. Regional groundwater flow for the Monterey Formation is northwesterly to westerly at a hydraulic gradient of 0.009 foot per foot

Start Date for Compliance Period and for Post-Closure Maintenance Period: Title 27 §20410 requires the Regional Board to specify a Compliance Period in its landfill related orders. The Compliance Period, pursuant to Title 27 §20380(d)(1) and §20410, is a minimum of three years or until waste discharged at the Landfill no longer poses a threat to water quality. Therefore, the compliance period start date shall correspond with the later of:

- The final closure construction completion date; or,
- The date the Discharger completes submitting all documents, pursuant to Title 27 [i.e., §20323 – Construction Quality Assurance Plan, §20324(a) – Construction Quality Assurance Performance Standard, §20324(d)(1)(C) – Final Documentation Report and §21760(a)(1) – As Built Plans], that have received Regional Board Executive Officer review and approval

LANDFILL EXPANSION LINER DESIGN: As stated above, the Discharger plans to construct three expansion cells, Modules 3, 4, and 5. The proposed order requires the Discharger to construct all new waste management units with a Title 27 and 40CFR258 compliant prescriptive liner system, but provides for an “Engineered Alternative” design.

Engineered Alternative designs must satisfy the performance criteria in 40 CFR 258.40(a)(1) and (c), and satisfy the criteria for an engineered alternative to the Prescriptive Design, as provided by Title 27 §20080(b), where the performance of the alternative design components, in combination, equal or exceed the waste containment capability of the regulatory prescriptive design.

Since the Proposed Order was initially drafted, the Discharger submitted a February 24, 2004 “Module 3, 4 and 5 Composite Liner Construction Plan,” (Plan). The Discharger’s proposed liner system on 2-to-1 slopes is 80-mil HDPE (high density polyethylene) on subgrade.

On March 23, 2004 (March 23 Letter), Regional Board staff provided the Discharger with comments on the Plan, refer to Attachment 3. The March 23 Letter, in part, does not accept the Discharger’s proposed liner system on the 2-to-1 slopes, discussed below.

On March 26, 2004, the Discharger notified Regional Board staff that they are considering appealing Regional Board’s March 23 Letter to the State Water Resources Control Board.

Based on the Discharger’s Plan and Regional Board staff’s March 23, 2004 comments on the Plan, the following changes are recommended to the Proposed Order and MRP:

1. Remove from the Proposed Order specification C.3.b.i regarding “Engineered Alternative” for “Steep Slopes.” The language included in specification C.3.b.i is from State Water Resources Control Board’s Resolution No. 93-62. Removing specification C.3.b.i from the Proposed Order does not remove the availability for engineered alternative liner designs on steep slopes for the Discharger, as provided for in Resolution No. 93-62.

However, the engineered alternative on steep slopes provided in Resolution No. 93-62 requires the Discharger to justify its steep slope liner design by stating “...where an engineering analysis shows, and the Regional Water Board finds, that sideslopes are too steep to permit construction of a stable composite liner that meets the prescriptive standards...”

The Discharger submitted a prescriptive liner design, with an engineering analysis, which indicates it is feasible to construct a stable prescriptive composite liner on the steep slopes the Discharger plans to excavate as part of the Landfill's Module 3, 4 and 5 expansion. Regardless, the Discharger can also achieve construction of stable prescriptive composite liners for the Module 3, 4 and 5 expansion, by excavating a flatter slope.

2. Given the waste fill sequencing of how lined Module 3, 4 and 5 expansion overlaps unlined Module 1, staff proposes adding to the Landfill's MRP a requirement to survey and place markers that clearly indicate the edge of liner locations for Module 2, 3, 4 and 5. Regional Board staff's intent is to assure reapplication of collected leachate is limited to the lined modules and not to the unlined module.

This requirement has been used in other regions for this purpose, and staff intends to add this requirement to the MRPs of all active landfills (as applicable) where it is difficult to determine the margin of lined modules.

3. The Discharger proposes utilizing the LCRS piping located along the upper benches of Module 3 to transport stormwater. This cross-connection between stormwater/leachate piping will occur at two locations. The Discharger's proposed design would create the potential for leachate to enter the stormwater collection system.

To minimize this risk, the Discharger will provide the Regional Board with a landfill operation plan that includes discussion on tracking the stormwater/leachate cross connections. The Discharger will post signs at each cross connection indicating prior to discharging waste above the signage elevation the LCRS/stormwater cross connection must be capped and the LCRS piping reconnected. Proposed MRP has also been amended to require semi-annual checking of the stormwater/leachate piping cross connection locations.

COMPLIANCE HISTORY: In March 2001, discharge of leachate to storm water drainageways

occurred at the Landfill. Upon Regional Board staff inspection and direction, the Discharger took corrective action. A Notice of Violation (NOV) was sent to the Discharger on May 11, 2001, requiring a report on the March 2001 leachate release, a leachate management plan and a pre-winter preparedness plan. The Discharger submitted a July 30, 2001 report outlining improved Landfill operations plans in response to the Regional Board May 11 NOV. On September 4, 2001, the Executive Officer conditionally concurred with the plans contained in the Discharger's July 30 report. No other violations are noted at the Landfill during the last five years.

PROPOSED ORDER CONTENT:

The Proposed Order is structured as follows:

General Information: Includes discussions on the Landfill's geology and hydrogeology, water quality, operations, beneficial uses of water, and surrounding land use.

Compliance with other Regulations and Orders: Directs the Discharger to comply with all applicable portions of Title 27, 40 CFR 257 and 258, and the State Water Resources Control Board's general stormwater permit regarding releases attributed to stormwater runoff. States the Discharger is no longer subject to Regional Board's Order No. 93-84.

Prohibitions: These discharge prohibitions are applicable to Class III waste disposal.

Specifications: Site-specific specifications the Discharger must meet and/or implement.

Water Quality Protection Standards: Includes constituents of concerns, monitoring parameters, concentration limits, monitoring points, point of compliance, and compliance period.

Provisions: In general, the Discharger is required to update and submit reports.

The Discharger is required to address three separate financial assurance issues involving closure, post-closure maintenance and monitoring, and corrective action, pursuant to Title 27 §22207 (Closure Fund), §22212 (Post-Closure Fund) and §22222 (Corrective Action Fund).

The Discharger's Report of Waste Discharge (ROWD) included a December 31, 1995 "Financial Assurance for Corrective Action Report," which recommended a one million dollars minimum financial assurance mechanism. Given the Discharger's proposed Landfill expansion, the Discharger's nine years old financial assurance for corrective action report needs updating.

The ROWD did not make it clear if the Discharger is meeting its financial assurance requirements. On January 28, 2004, staff contacted Mr. Mike Hoover who faxed to the Regional Board a March 26, 2003 letter from California Integrated Waste Management Board (CIWMB) stating the Landfill's financial assurance instrument meets Title 27's requirements for closure and post-closure until March 7, 2004. The CIWMB is the state agency responsible for managing the Title 27 financial assurance funds. Mr. Hoover indicated on January 29, 2004, that the Landfill has submitted its financial assurance updated for the next year's coverage.

However, the CIWMB's March 26 letter was still unclear on financial assurance for corrective action, which led Regional Board staff to contact Ms. Nancy Jestreby, with the CIWMB-Financial Assurance Division, on January 28, 2004. Ms. Jestreby indicated that the Discharger last updated its financial assurance plan for corrective action back in the year 2000 for an amount of \$1,092,163.

The Discharger has subsequently submitted its February 13, 2004 "Cost Estimate Financial Assurance for Corrective Action" (Workplan), prepared by GeoSyntec Consultants, refer to Attachment 5.

Regional Board staff has concurred with the Discharger's Workplan and notified the CIWMB of our concurrence, so the CIWMB can adjust the Discharger's Financial Assurance mechanism for Corrective Action according to the Workplan.

To help track the Discharger's compliance with financial assurance requirements, two requirements were included with the Provisions section of the Proposed Order under Reporting. The first requirement states that the Discharger must submit an updated report on financial assurance for corrective action by December 15, 2008, or earlier as needed. The second

requirement states that the discharger must provide evidence the Title 27 financial assurance instruments are in place for closure, post-closure and corrective action by January 31 of each year.

MONITORING AND REPORTING PROGRAM CONTENT: The Proposed MRP consists of:

Monitoring And Observation Schedule: Contains requirements for periodic routine Landfill inspections (i.e., Site Inspections, Drainage Systems Inspections, Rainfall Data) and detailed analytical monitoring of various mediums (e.g., groundwater, landfill gas).

Recent concerns over the gasoline additive, Methyl-tertiary Butyl ether (MTBE) have lead to adding this constituent to the Monitoring Parameter list for all the Regional Board regulated landfills. Similarly, due to concerns over emergent chemicals, Perchlorate has also been added as an analytical parameter.

Sample Collection and Analysis: Establishes criteria for sample collection and analysis, methods to determine concentration limits, and specifies how these records shall be maintained. This section specifies that all sampling, collection, storage, and analysis of data shall be performed according to the most recent version of Standard U.S. EPA Methods (U.S. EPA Publication SW-846) or in accordance with an Executive Officer approved sampling and analysis plan.

Statistical and Non-statistical Analysis of Data: Outlines acceptable statistical and non-statistical methods the Discharger must use to perform data analysis. Statistical analysis has been added to bring the Proposed Order into compliance with Title 27.

Reporting: Establishes formats and requirements that the Discharger must follow when submitting analytical data to the Regional Board. Proposes changing the frequency of monitoring from quarterly to semi-annually.

Monitoring Points: The Discharger submitted a January 9, 2004 report, which proposes changing a few of the Landfill's detection monitoring points. The January 9 report contains analyses of major cations and anions,

which suggests water characteristics in well MW-8 are similar to well MW-10. Similarly, water characteristics in well MW-6 are similar to well MW-9B. Consequently, the Discharger proposes replacing MW-8 with MW-10 and replacing MW-6 with MW-9B. In addition, the Discharger proposes replacing gas monitoring well MW-3 with well MW-11.

The Discharger proposes properly destroying wells MW-3 and MW-8 (note, wells MW-5 and 6 are located on property not owned by the Discharger). The proposed MRP has been modified to accommodate the Discharger's proposal.

The proposed MRP specifies the following Detection Monitoring Points: three groundwater monitoring wells (wells MW-4, -7 and -10) completed in the Monterey Formation and two wells (MW-9a and 9b) completed in the Paso Robles Formation. There are three lysimeters (L-5, -6 and -8). There is one supply well (Office Well) located at the Landfill. There are also 24 landfill gas wells (MW-1, 2, 11, and GW-2 through 22), see Proposed Order Attachment C.

ENVIRONMENTAL SUMMARY

The Proposed Order contains prohibitions, discharge specifications, water quality protection standards, and provisions intended to protect the environment by mitigating or avoiding impacts of the project on water quality. The Proposed Order is for both existing facility and a lateral expansion. The existing facility is exempt from provisions of the California Environmental Quality Act (Public Resources Code, §21000, et seq.) in accordance with Title 14, Chapter 3, §15301.

The lateral expansion for Modules 3, 4 and 5 is addressed by a Mitigated Negative Declaration, which was filed with the State Clearinghouse (SCH #1995071081) and adopted by the Environmental Coordinator's Office of the San Luis Obispo County Building and Planning Department on April 25, 2003. The Mitigated Negative Declaration's Project Description addressed five categories:

- Change in hours of operation at the Landfill.

- Change in hours of operation at the Discharger's Santa Maria Transfer Station.
- Change in final grade from 3-to-1 to 2.5-to-1. Inclusion of this final grade change is not to be construed as Regional Board acceptance of the change. Regional Board's review and acceptance of final slope grades will occur when the Landfill's waste management units get closer to closure and the Discharger.
- Increase the waste disposal area (i.e., "Permitted Area for Waste Management Units," refer to Attachment C of the Proposed Order) from 36.25 acres to 38.44 acres.
- Increase in traffic volume to the Landfill.

RESPONSE TO COMMENTS:

California Integrated Waste Management Board Ms. Nancy Jestreby, with the CIWMB-Financial Assurance Division called on March 18, 2004, indicated the CIWMB concurs with the Proposed Order. Ms. Jesterby requested resolution of the Title 27 Financial Assurance for Corrective Action regarding the Discharger's Corrective Action Plan and Cost Estimate.

Response: Regional Board staff has reviewed and approved the Chicago Grade Landfill's Financial Assurance Corrective Action Plan. Ms. Nancy has been notified of the approval.

Chicago Grade Landfill submitted a March 11, 2004 comment letter, refer to Attachment 4, which is paraphrased and responded to below. Mr. Mike Hoover and Frank DeMarco, Regional Board staff, met on March 26, 2004 (March 26 Meeting) to further discuss the March 11 comment letter.

1. Correct Finding 10 of the Proposed Order to indicate the Waste Management Facility covers 188 acres, not 142.6 acres.

Response: Concur, correction made.

2. Delete Finding 31 of the Proposed Order given Title 27 §20250(b)(1) does not apply to the Landfill. The Dischargers gives two reasons for this request. First, Title 27 §20250(b)(1) applies to new landfills and the Chicago Grade Landfill is an "existing" landfill. Second, all properly sampled and tested soils underlying the current waste disposal area and the future

expansion areas have permeability of 10-7 to 10-9 cm/sec.

Response: Partially concur.

Based on the March 26 Meeting, the Discharger's expressed concern that Finding 31's language may impact the Landfill's marketability, in terms of being competitive in negotiating waste disposal contracts. However, before discussing resolution of the Discharger's concern, a few areas of clarification are needed, as follows:

- Please note Finding 31 should cite §20260(b)(1), not §20250(b)(1).
- Clarification on Title 27's use of the terms "new" versus "existing" landfills. Title 27 §20080(d) "Existing & New Units" reads as follows:

"(d) Existing & New Units—Units which were operating, or had received all permits necessary for construction and operation, on or before November 27, 1984, are designated as "existing" Units...All other Units (including expansions and reconstructions of existing Units initiated after November 27, 1984) are "new" Units. For discharges at new Units, the discharger shall comply with all applicable provisions of this division..."

Thus, the Discharger's proposed expansion area (Module 3, 4 and 5) represents "new" units that are fully subject to Title 27, including §20250(b)(1).

- Finding 31 is essentially an implementation of Title 27 §20260(b)(2) and 40CFR258.40. Based on Regional Board records and field observations, refer to Attachment 6, the Regional Board is making a finding that the Landfill's siting characteristics "...alone do not ensure protection of the quality of ground water or surface water..." Because of Finding 31, all "New" "Waste Management Units" (e.g., proposed Module 3, 4 and 5

expansion) constructed at the Landfill must include "Composite Liners," as prescribed in Title 27 and 40CFR258.

In an effort to address the Discharger's concern with Finding 31's language affecting the Landfill's marketability and to help clarify the Finding's intent, Regional Board staff proposes the following wording change:

"31. In accordance with Title 27 §20260(b)(1) and 40CFR 258.40, the Regional Board finds that all new waste management units constructed at the Landfill must have prescriptive composite liners, except for engineered alternatives as provided in Title 27 §20080(b) and 40 CFR §258.40(a)(1) and (c). Any expansion of an existing unit is a "new waste management unit."

3. Modify Provision No. 8 to include the wording "during normal business hours," or at least add "when Landfill staff is on site." The Discharger cites the Landfill's high level of security, including armed guards, and the owner's residence integrated into the Landfill's office.

Response: Partially concur.

Based on the March 26 Meeting, it appears the Discharger's primary concern with Provision No. 8 is the potential for Regional Board staff to access of the Discharger's private residence/offices without the Discharger being present. However, before discussing resolution of the Discharger's concern, a few areas of clarification are needed, as follows:

- Title 27 contains several regulations regarding the need for security at landfills. So, the Discharger is commended for its security efforts. However, it is important for the Discharger to remember all discharges of waste into waters of the state are a privilege, not a right, pursuant to California Water Code (CWC) §13263(g).
- For several decades, the Regional Board has included in its waste discharge requirements similar access language as contained in Provision No. 8. The intent of Provision No. 8 is to allow Regional

Board staff access to points of discharge at anytime, given violations of waste discharge requirements that could threaten public health or safety can occur at any time, pursuant to CWC §13267(C). The need for immediacy of access applies even to landfills (e.g., leachate releases to surfacewaters, breach of retention basins, etc.).

- It is common for Regional Board staff to do "after normal business hour" inspections at landfills, including at the Chicago Grade Landfill. In every instance, Regional Board staff inspections have been reasonable, involving the Discharger's knowledge, consent, and with or without the Discharger being present.

Staff respects the Discharger's security measures, as required by Title 27, and the Discharger's personal privacy, however, staff is charged with protecting water quality at all times, and potentially requires access at times outside the Landfill's normal business hours (Chicago Grade Landfill's normal business hours are Monday through Saturday 7:30 a.m. to 3:00 p.m.) when public health or safety is threatened. Therefore, Regional Board staff recommends incorporating the Discharger's language "when Landfill staff is on site," but maintain access "when public health or safety are threatened," excluding access to residence/offices during the public health and safety responses, as follows:

"8. The Regional Board shall be allowed, when Landfill staff is on site and without prior notification:

- a. Entry upon the Landfill area or where records are kept under the conditions of this Order and MRP No. R3-2004-0002.*
- b. Access to copy any records that must be kept under the conditions of this Order and MRP No. R3-2004-0002.*
- c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order and MRP No. R3-2004-0002.*

d. To photograph, sample, and monitor for the purpose of showing compliance with this Order."

When public health or safety are threatened, Regional Board shall be allowed access to the Landfill (excluding the Discharger's personal residence/offices, unless Landfill staff is present) at any time, with or without prior notification or the presence of Landfill staff."

4. Request removing the entire discussion on Financial Assurance from the staff report and Proposed Order, except for the request for an updated corrective action cost estimate. The basis for the Discharger's request is predicated on separation/duplication of regulatory agency financial assurance responsibilities contained in Title 27 and Regional Board staff not properly characterizing the Discharger's Title 27 financial assurance responsibilities.

Response: Do not concur.

During the March 26 meeting, the Discharger expressed concern with additions/redundant reporting requirements (along with associated enforcement should the Discharger fail to report its Financial Assurance compliance), given the Discharger is already reporting the same information to the CIWMB. The Discharger suggests verification is best accomplished by having the CIWMB send the Regional Board a copy of its Financial Assurance approval letters, saving the Discharger the responsibility/hassle.

The Discharger again requested removal of the staff report's discussion on the Regional Board staff's efforts to determine the Discharger's compliance with Title 27's Financial Assurance requirements. Inclusion of this Financial Assurance effort and discussion allows the Regional Board members and public an opportunity to review and comment on an important aspect of regulating landfills. Regional Board staff has modified the original staff report's financial assurance discussion, in an effort to partially address the Discharger's concern.

Regarding the Discharger's obligation to submit periodic Financial Assurance verification to the Regional Board, Regional Board staff concluded the Landfill is owned by a small and closely held company. With that in mind, Title 27's financial assurance requirements are intended to protect the taxpayers of California from shouldering the cost of closure, post-Closure or corrective action should the Discharger "fail to perform." [Public Resources Code (PRC) §43500-610.1].

Regional Board staff concluded it was important that the Discharger verify its compliance with the Title 27 Financial Assurance requirements. However, the Discharger makes an excellent argument that the CIWMB is already overseeing the Financial Assurance process, so why is the Regional Board duplicating this effort?

The Regional Board's have a vested interest and are an integral part of the Financial Assurance process, pursuant to Title 27 20950(f), §21780(b), §21880(a), §22212(a) or Title 27 §22231(b) and (c), along with other sections of Title 27 and the PRC. To emphasize the last point, Title 27 §22231(b) and (c) requires the CIWMB to disburse the closure, post-closure maintenance or corrective action funds to the Regional Board when the Regional Board finds that the Discharger "...has failed to perform..." by the plan or workplan approved by the Regional Board, or as required by an Order issued by the Regional Board, including Waste Discharge Requirements, Cease and Desist Orders, and/or Cleanup and Abatement Orders.

Consequently, Regional Board staff concludes it is the Discharger's responsibility, not the CIWMB's, to keep the Regional Board informed on the Discharger's Financial Assurance compliance. On March 26, 2004, Regional Board staff received the CIWMB concurrence (Richard Castle, Financial Assurance Division) on including Provision No. 8's tracking requirement in the Proposed Order.

5. The Proposed MRP's Part I. C. "Leachate and Drainage System Inspection" (LCRS)

specifies bi-weekly year-round inspections, which the Discharger considers excessive. The Discharger indicates the Landfill only generates leachate a few days a year and always during the winter. The Discharger suggests limiting the inspection to winter months, and feels that monthly pumping system operational checks are also excessive, suggesting the frequency be changed to annual.

Response: Partially concur.

Leachate generation is, in part, a function of:

- Waste source (e.g., food waste products contain high moisture content that are released as the waste degrades);
- Timing (rainy season typically generates more liquids than the dry season of the year, as the Discharger indicates); and,
- Position/placement (more liquids are generated in a new unit, decreasing as the waste mass increase/rises).

The Proposed MRP is intended to assure the LCRS can handle as many liquid generating scenarios as is reasonable. However, Regional Board staff acknowledges that during the dryer seasons, leachate generation at this landfill has typically been minimal. Consequently, the following wording change is proposed:

"A. LEACHATE AND DRAINAGE SYSTEMS INSPECTIONS

The Discharger shall inspect all leachate collection and treatment systems and record the following information:

1. ***Bi-weekly (between October 1 and April 31 of each year) - leachate containment and collection system integrity, record volume of leachate collected (in gallons) and disposal method used, surface water collection and drainage system integrity.***
2. ***Monthly (between May and September 30 of each year) - after emptying the leachate tank by May 1 or each year, leachate containment and collection system integrity, record volume of leachate collected (in gallons) and disposal method used.***

3. *Monthly (between October 1 and April 31 of each year) - pumping system operational check*
6. The Discharger objected to the requirement of inspecting and reporting on drainage system conditions after each storm event. The Discharger is concerned with increased inspection costs and suggests the inspections serve no "tangible purpose, since the simple recordation of a problem by an inspector is not the same as landfill personnel addressing the problem."

Response: Do not concur.

This is a requirement added to several landfills that have recently been issued revised WDRs and is in response to problems noted at landfills, including Chicago Grade, regarding stormwater management and response. The addition of this requirement for other landfills has proven to be a useful tool in mitigating stormwater related problems. Also, the Discharger should be notifying the Regional Board of the corrective actions taken, per the Discharger's comment, as well as the "recordation of a problems."

The Discharger mentions increased costs as being a concern. Regional Board staff is not unsympathetic to cost considerations, and has recommended decreasing the Landfill's monitoring frequency from quarterly to semi-annually (consistent with the majority of active landfills in this Region.), which represents a significant cost savings.

7. The Discharger requested deletion of VOC gas analysis in gas extraction wells GW-2 through GW-22, due to these wells occurring within the point of compliance.

Response: Partially concur.

The intent of this requirement is to assess landfill gas-related VOC distribution over the landfill. With this information, Regional Board staff can assess how effective the landfill gas system is in limiting VOC migration to groundwater.

At the March 26 Meeting, the Discharger offered to mitigate portions of the VOCs in Landfill gas by improving the gas extraction system. The Discharger offered to place five additional gas extraction wells, three in lined Module 2 and three in unlined Module 1.

Based on the Discharger's intent to expand the Landfill's gas extraction system, Regional Board staff recommends changing the method TO-14 gas monitoring as follows:

"6. Landfill Gas Collection System

Gas monitoring probes MW-1, MW-2 and MW-11 shall be monitored semi-annually for methane, carbon dioxide, oxygen and volatile organic constituents. Test for volatile organic compounds annually using method TO-14, either from:

- *MW-1, MW-2 and MW-11, if five new gas wells are constructed (two in Module 1 and three in Module 2, as discussed on March 26, 2004), or:*
- *GW-2 through 22, MW-1, MW-2 and MW-11.*

Monitoring results shall be submitted to the Board in semi-annual reports and include information specified in Title 27, §20934."

RECOMMENDATION:

The Regional Board adopt proposed Waste Discharge Requirements Order No. R3-2004-0002 and the Executive Officer approve Monitoring Reporting Program No. R3-2004-0002.

ATTACHMENTS:

1. Proposed Waste Discharge Requirements Order No. R3-2004-0002
2. Proposed Monitoring and Reporting Program No. R3-2004-002
3. Regional Board March 23, 2004, Regional Board letter to the Discharger.
4. March 11, 2004 comment letter from the Discharger.
5. February 13, 2004, Financial Assurance Cost Estimate by GeoSyntec Consultants