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SEP 29 2005

HEARING BOARD
BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

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BEFORE THE HEARING BOARD
OF THE
BAY AREA AIR QUALITY MANAGEMENT DISTRICT
STATE OF CALIFORNIA

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In the Matter of the Application of:)	Docket No. 3498
SHORELINE LANDFILL,)	
CITY OF MOUNTAIN VIEW,)	ORDER GRANTING
CALIFORNIA)	VARIANCE
)	
For a Variance from Regulation 8, Rule 34,)	
Sections 301.1, 301.2, 303, and 305 and)	
Major Facility Review Permit Condition)	
No. 16065, Parts 2, 3, and 5C)	

The above-entitled matter is an Application for a Regular Variance from the provisions of Regulation 8, Rule 34, Sections 301.1, 301.2, 303, and 305 and Major Facility Review ("MFR") Permit Condition 16065, Parts 2, 3, and 5C for the Shoreline Landfill located at 2600 North Shoreline Boulevard, Mountain View, California, owned and operated by the City of Mountain View ("Applicant"). Regulation 8, Rule 34 and the listed MFR permit conditions pertain to organic compounds at solid waste disposal sites. The Applicant filed an application for a Variance on July 11, 2005.

Patrick Sullivan of SCS Engineers, Nancy Noe of ALZA Corporation, and Nirmal Sajjan and John Welbourn of the City of Mountain View appeared on behalf of Applicant.

Todd Gonsalves, appeared as counsel for the Air Pollution Control Officer ("APCO").

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1 The Clerk of the Hearing Board provided notice of this hearing on the Application for
2 Regular Variance in accordance with the requirements of the California Health and Safety Code.
3 The Hearing Board heard the request for variance on August 25, 2005. During the hearing,
4 Applicant made two amendments to its application. In the original variance application, the
5 variance was requested for the period from July 26, 2005 through December 31, 2005. At the
6 hearing, the Applicant amended its application by requesting a variance from July 26, 2005
7 through July 25, 2006 in case additional time is needed to complete the project. Applicant also
8 amended its application to include the MFR permit conditions pertaining to Regulation 8,
9 Rule 34, Sections 301.1, 301.2, 303 and 305. During the hearing, the Applicant submitted into
10 evidence five exhibits as part of its testimony.

11 The Hearing Board provided the public an opportunity to testify at the hearing as
12 required by the Health and Safety Code. No members of the public testified. The Hearing
13 Board received evidence from both parties. The APCO did not oppose the granting of the
14 variance subject to certain conditions.

15 The Hearing Board declared the evidentiary portion of the hearing closed after receiving
16 testimony. Following deliberation on August 25, 2005, the Hearing Board decided the matter.

17 **BACKGROUND**

18 The Applicant operates a closed solid waste landfill located at 2600 North Shoreline
19 Boulevard, Mountain View, California ("Facility"). The Facility has been issued a MFR
20 permit from the Bay Area Air Quality Management District ("District"). The Applicant is not
21 considered a small business as described by California Health and Safety Code Section
22 42352.5(b)(2) and emits more than 10 tons per year of air contaminants.

23 The Facility includes a landfill gas collection system, denoted Source S-1 in the MFR
24 permit, which is used to collect and control landfill gas generated from decaying refuse in the
25 landfill. According to Applicant, the landfill gas system consists of 264 vertical wells, seven
26 horizontal collectors, three blowers, and three flares. The landfill gas is controlled by one or
27 more of three landfill gas flares, denoted A-3, A-4, and A-5 in the MFR permit, and/or two
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1 microturbines, denoted Sources S-12 and S-13 in the MFR permit. The landfill gas system,
2 including the flares and microturbines, is used to maintain compliance with District
3 Regulation 8, Rule 34, and the MFR permit.

4 The Application stems from the Applicant's intent to install a pipeline to transport
5 landfill gas to three off-site facilities owned by the ALZA Corporation, also located in
6 Mountain View. The ALZA Corporation will burn the landfill gas in three internal
7 combustion (IC) engines to produce electricity which will be used at its facilities or sold when
8 production exceeds the power needs of the ALZA facilities. This project will use the
9 renewable energy source provided by the landfill gas and will use co-generation to supply hot
10 water. According to the Application, during the installation, connection, startup, and testing
11 of the pipeline and the engines and associated equipment, it will become necessary for the
12 landfill gas collection and control system to be shutdown for the various activities to be safely
13 completed. The shutdowns of these systems may lead to violations of aforementioned
14 sections of Regulation 8, Rule 34, and to corresponding MFR permit conditions.

15 Specifically, Regulation 8, Rule 34, Section 301.1 requires the landfill gas collection
16 and control system to be operated in a continuous fashion to control surface emissions of
17 landfill gas. Regulation 8, Rule 34, Section 301.2 limits leaks from the landfill gas collection
18 and control system components to less than 1,000 parts per million above background of total
19 organic gases by volume as methane. Regulation 8, Rule 34, Section 303 limits landfill gas
20 surface emissions to less than 500 parts per million by volume above background of total
21 organic gases measured as methane. Regulation 8, Rule 34, Section 305 requires that each
22 landfill gas collection system wellhead be operated at a negative pressure. Part 2 of Condition
23 No. 16065 of the MFR permit requires that all collected landfill gas be routed to the flares
24 and/or microturbines and prohibits raw or untreated landfill from being emitted to the
25 atmosphere. Part 3 of Condition No. 16065 of the MFR permit requires that the landfill gas
26 collection and control system be operated continuously. Part 5, Subpart C of Condition
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1 No. 16065 of the MFR permit places limitations on surface and component leaks per
2 Regulation 8, Rule 34.

3 **DISCUSSION**

4 Applicant presented the environmental benefits of the ALZA-Mountain View landfill gas
5 cogeneration project which will lead to annual greenhouse gas emission reductions equivalent to
6 a reduction of over 20 million pounds of carbon dioxide per year. Without connecting ALZA's
7 generators to the landfill gas system, the Applicant cannot transfer landfill gas to ALZA and
8 thus cannot realize the environmental and other benefits of this project. Due to the nature of
9 landfill gas and health and safety concerns, the modifications cannot be done while the landfill
10 gas system is in operation.

11 The Applicant's only option to avoid violating District rules and regulations would be to
12 forgo modifying its landfill gas collection system supplying landfill gas to ALZA Corporation.
13 The Applicant estimates that, if it cannot supply landfill gas to ALZA Corporation, it will lose
14 between \$2,000,000 and \$2,500,000 in revenue from sales of landfill gas over a 15-year period.
15 Although they are not the Applicant in this matter, ALZA Corporation testified that it would lose
16 its investment of \$5,000,000 if this variance is not granted.

17 Applicant and District worked pro-actively together to determine the appropriate remedy
18 for expected voluntary violations of District regulations needed to complete this environmentally
19 beneficial energy project. Options besides a variance were considered but deemed inappropriate.
20 Applicant worked closely with the District to craft conditions to limit the duration of periods
21 with possible excess emissions and to implement an enhanced monitoring and strict notification
22 regime. Applicant agreed to limit downtime of the landfill gas collection system to 120 hours
23 with each shutdown event limited to 12 hours in duration. Total time to regain compliance would
24 be limited to 180 hours with 18 hours maximum duration after each shutdown event. By
25 agreeing to these limits, Applicant reduces the opportunity for the build-up of pressure due to the
26 landfill gas and limits the total emissions during the variance period.
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2 The Applicant and the District are in substantial agreement in estimating that volatile
3 organic compound (VOC) emissions during the variance period may be as high as 136 pounds
4 per day of unabated emissions in excess of District Regulation and MFR permit limits. The
5 toxic air contaminant (TAC) emissions during the variance period may be as high as 1.02 pounds
6 per day of unabated emissions in excess of District Regulation and MFR permit limits. Based on
7 these daily excess emissions estimates and the condition limiting the total downtime and total
8 time to regain compliance (300 hours total or 12.5 days), the total excess emissions during the
9 variance period would be 1700 pounds of VOCs and 13 pounds of TACs.

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11 Aside from the events that are the subject of this variance application, the Applicant has
12 recently been in compliance with emissions regulations and MFR permit conditions. The
13 Applicant does not anticipate further need for a variance after the pipeline and IC engine
14 installation projects are completed.

15 **SPECIFIC FINDINGS**

16 The Hearing Board finds pursuant to Health and Safety Code Section 42352 that:

17 1. Applicant is or will be in violation of Regulation 8, Rule 34, Sections 301.1, 301.2,
18 303, and 305 and MFR Permit Condition 16065, Parts 2, 3, and 5C during the landfill gas
19 pipeline and IC engine installation project, as a result of landfill gas system downtime due to
20 project activities. The project will result in landfill gas system downtime, which is in violation
21 of the MFR permit and Regulation 8, Rule 34, Section 301.1, which require continuous
22 operation. The downtime will also result in exceedances of the component leak standard in
23 Regulation 8, Rule 34, Section 301.2 and the surface emission standard in Regulation 8, Rule 34,
24 Section 303. The downtime will cause the landfill gas collection system wellheads to be
25 operated at a positive pressure in violation of Regulation 8, Rule 34, Section 305.

26 2. Due to circumstances beyond the reasonable control of Applicant, requiring
27 compliance with Regulation 8, Rule 34, Sections 301.1, 301.2, 303 and 305 and MFR Permit
28 Condition No. 16065, Parts 2, 3 and 5C will result in an unreasonable taking of property. To

1 complete the ALZA-Mountain View landfill gas cogeneration project and thus to realize its
2 beneficial effect on the environment, the Applicant must shut down its landfill gas collection
3 system to safely connect the system to ALZA's generators and facilities. As a result, the
4 Applicant will be in violation of the District Regulations that are the subject of this request.
5 Requiring compliance in this case would result in an unreasonable taking since Applicant will
6 lose between \$2,000,000 and \$2,500,000 in revenue from sales of landfill gas to ALZA
7 Corporation over a 15-year period. In addition, although they are not the Applicant in this
8 matter, ALZA Corporation testified that it would lose its investment of \$5,000,000 in the
9 cogeneration project if this variance is not granted.

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11 3. The closing or taking would be without corresponding benefit in reducing air
12 contaminants. Excess emissions of volatile organic compounds (VOC) during the variance
13 period are estimated to be at most 136 pounds per day. This amount is very small compared to
14 the total VOC emission inventory for the District. TAC excess emissions during the variance
15 period are estimated to be less than 1.02 pounds per day.

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17 4. The Applicant has given consideration to curtailing operations of the Facility in
18 lieu of obtaining a variance. Because of the nature of the Facility, the Applicant cannot curtail
19 operations in lieu of obtaining a variance. This is due to the fact that the landfill will continue to
20 emit landfill gases regardless as to whether the Facility curtails on-site operations.

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22 5. The Applicant has and will continue to reduce emissions to the maximum extent
23 feasible during the variance period by limiting the actual time when the landfill gas collection
24 and control system will be off-line as well as limiting the time for each downtime event. In
25 addition, the Applicant will conduct surface emissions and component leak monitoring as
26 detailed in the conditions below and utilize the results of the monitoring to pinpoint areas of
27 excess emissions. These areas will be remediated through the use of cover repair and sealing
28 around cover penetrations to reduce these emissions.

6. The Applicant will keep track of the elapsed time for each downtime event and
conduct landfill gas monitoring, including surface emissions, wellhead, and component leak

1 testing, in order to quantify excess emissions that will occur during the variance period and
2 report those emissions to the District in accordance with the conditions below.

3 **THEREFORE, THE HEARING BOARD ORDERS:**

4 A variance is granted for the period July 26, 2005, through and including July 25, 2006,
5 from Regulation 8, Rule 34, Sections 301.1, 301.2, 303, and 305 and MFR Permit Condition
6 16065, Parts 2, 3, and 5C. The variance is subject to the following conditions:

7 1. Downtime for the landfill gas collection and control system during the variance period
8 will be limited to 120 hours of actual downtime and 12 hours maximum downtime per day. In
9 addition to the 120 hours of downtime, the Applicant will have an additional 180 hours of time
10 beyond the 120 hours to return to compliance, including 18 hours maximum per shutdown event.

11 2. The Applicant will notify the District no later than two business days before each
12 planned downtime event and within 24 hours after the discovery of any unplanned event.
13 Notification may be made by fax to Director of Compliance & Enforcement at (415) 928-0338.

14 3. The Applicant shall keep logs of any downtime events consistent with the
15 requirements of Regulation 8-34-501.1 and 501.2. The logs must be clear about the reason(s) for
16 the shutdown, including a short description of the work completed that necessitated the
17 shutdown. The Applicant must provide enough information to verify that the shutdown was due
18 to work authorized under the variance. In addition, the Applicant must record the date and time
19 when vacuum was restored to the landfill gas system. The logs should also show calculated
20 excess emissions. Records documenting wellfield monitoring must include a listing of wells and
21 areas monitored, pressure readings at each wellhead monitored, and emission values in parts per
22 million by volume of any surface or components leaks detected in accordance with
23 Regulation 8, Rule 34 and the facility's MFR permit.

24 4. For every planned shutdown event of more than two hours, the Applicant must
25 monitor for pressure, surface emissions, and component leaks at landfill gas extraction wellheads
26 in accordance with the provisions of this paragraph.. Monitoring is to commence immediately
27 after the landfill gas system goes back online. For purposes of monitoring, the landfill will be
28 divided into the following six areas: Crittenden, Vista, Front Nine, Back Nine, and 6A Northeast.

1 In each area, the Applicant must test 15% of the wellheads for pressure and for surface
2 emissions/components leaks around the well casings or vaults. Different wells should be tested
3 in each area after each event. The Applicant will follow the testing procedures set out in site-
4 specific permit conditions, including Condition No. 16065, Part 5, Subpart C of the Facility's
5 MFR permit. If there are any exceedances, the Applicant must return to the wellhead within two
6 business days or sooner and conduct remonitoring. If an exceedance still exists after the
7 remonitoring, the Applicant shall revert to the standard Regulation 8, Rule 34 regime of
8 corrective action and remonitoring for that location.

9 5. Applicant shall utilize the analytical data, monitoring results, and downtime records to
10 calculate the actual volatile organic compound and toxic air contaminant emissions that occurred
11 during the variance period. These calculations shall be submitted to the District and the Hearing
12 Board within ten working days after the end of the variance period or within ten working days
13 after the project is complete, whichever occurs first.

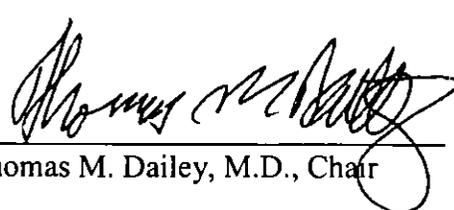
14 6. Applicant shall pay excess emission fees per District Regulation 3. Applicant may, at
15 its option, consult with District staff to determine if staff would concur with use of an estimate of
16 daily excess emissions lower than the figures described above.

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18 Moved by: Terry A. Trumbull, Esq.

19 Seconded by: Allan R. Saxe, Esq.

20 AYES: Julio Magalhães, Ph.D., Jeffery R. Raines, P.E., Allan R. Saxe, Esq.,
21 Terry A. Trumbull, Esq., and Thomas M. Dailey, M.D.

22 NOES: None
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Thomas M. Dailey, M.D., Chair


Date