

**STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT BOARD**

IN THE MATTER OF PROPOSED ADOPTION OF:

*Section 111(d) State Plan for Implementing
Municipal Solid Waste Landfills
Emission Guidelines*

No. EIB 16-06 (R)

AND PROPOSED AMENDMENTS TO:

20.2.64 NMAC– Municipal Solid Waste Landfills

DIRECT TESTIMONY OF CINDY HOLLENBERG

I. Witness Qualifications

Cindy Hollenberg is an Environmental Analyst in the Control Strategies Section of the New Mexico Environment Department (“Department” or “NMED”) Air Quality Bureau (“Bureau”). She is responsible for preparing state reports and plans, analyzing proposed rules, and writing rules for air quality. She has worked in the Air Quality Bureau since August 2013. Ms. Hollenberg holds a Bachelor of Science degree in Biology Teaching from Purdue University, a Master of Arts degree in International Peace Studies from the University of Notre Dame, and a Master of Public Administration degree in Environmental Science and Policy from Columbia University. Her resume is attached as NMED Exhibit 1.

II. Background

On August 29, 2016, EPA promulgated a final rule updating the New Source Performance Standards for new, modified and reconstructed municipal solid waste landfills (“MSWL NSPS”). The MSWL NSPS is codified at 40 C.F.R. Part 60 Subpart XXX. Concurrently, EPA promulgated updated emission guidelines for existing MSWLs (“Emission Guidelines”). The Emission Guidelines are codified at 40 C.F.R. Part 60, Subpart Cf, and were published in the Federal

1 Register at 81 FR 59276 - 59330. *See* NMED Exhibit 7. These guidelines update the original
2 emissions guidelines for MSWLs promulgated in 1996 and codified at 40 C.F.R. Part 60, Subpart
3 Cc (“Original Guidelines”). Both the MSWL NSPS and the Emission Guidelines aim to reduce
4 landfill gas emissions, including methane, and both use limits on non-methane organic compounds
5 (“NMOC”) as a proxy for methane limits.

6 Subpart XXX is included in the incorporation by reference of federal NSPS into 20.2.77
7 NMAC – *New Source Performance Standards*. This incorporation by reference is another matter
8 being considered by the Environmental Improvement Board (“Board” or “EIB”) on April 28, 2017;
9 it does not require any further rulemaking or other action by the EIB to become enforceable by the
10 Department. The Emission Guidelines, however, require that states, tribes, and local authorities
11 with affected facilities under their jurisdiction submit plans pursuant to Clean Air Act (“CAA”)
12 Section 111(d) to implement those guidelines. The New Mexico State Plan, once adopted by the
13 Board and approved by the U.S. Environmental Protection Agency (“EPA”), will be federally
14 enforceable, although it is not a part of the State Implementation Plan (“SIP”) because SIPs are
15 developed pursuant to Section 110 of the Clean Air Act, not Section 111.

16 The state plan being proposed by the Department in this proceeding follows the
17 requirements of CAA Section 111(d) governing State Plan Submittals, as outlined in the EPA
18 guidance document entitled “Municipal Solid Waste Landfills, Volume 2: Summary of the
19 Requirements for Section 111(d) State Plans for Implementing the Municipal Solid Waste
20 Landfills Emission Guidelines” (“Guidance Document”). The Guidance Document is attached as
21 NMED Exhibit 9.

22 CAA Section 111(d) requires submission of implementation plans within 9 months of
23 publication of the Emission Guidelines in the Federal Register. If New Mexico fails to submit an

1 approvable implementing plan by May 30, 2017, EPA is authorized to impose a federal plan on
2 the State.

3 **III. Proposed State Plan and Revised Proposed State Plan**

4 The original proposed state plan submitted with the petition for hearing in December 2016
5 (“Original Proposed Plan”) is attached as NMED Exhibit 5. In response to comments received
6 from stakeholders, minor language changes were made to Section 2 of the Original Proposed Plan.
7 The changes from the Original Proposed Plan are indicated in redline/strikeout format in the
8 revised proposed state plan (“Proposed Plan”) and included as NMED Exhibit 11.

9 In order to secure EPA approval, implementing plans must include the following ten
10 required Plan Elements:

- 11 1. Identification of enforceable State mechanisms selected by the State for
12 implementing the Emission Guidelines;
- 13 2. Demonstration of the State’s legal authority to carry out the Section 111(d) State
14 Plan as submitted;
- 15 3. Inventory of existing MSWLs in the State affected by the Emission Guidelines;
- 16 4. Inventory of emissions from existing MSWLs in the State;
- 17 5. Emission standards for existing MSWLs that are “no less stringent” than those in
18 the EGs;
- 19 6. State process for review and approval of site-specific gas collection and control
20 system design plans;
- 21 7. Compliance schedules extending no later than 30 months after the date the annual
22 NMOC emission rate reaches or exceeds thresholds in Subpart Cf;
- 23 8. Testing, monitoring, recordkeeping, and reporting requirements;
- 24 9. Record of public hearing on the State Plan; and
- 25 10. Provision for annual State progress reports to EPA on implementation of the State
26 Plan.

1 The Proposed Plan addresses these elements, as indicated in the Table of Contents, page 1 of
2 NMED Exhibit 11; the table includes the page number within the Proposed Plan where each
3 element is addressed. Although proposed revisions to 20.2.64 NMAC – *Municipal Solid Waste*
4 *Landfills* (“Part 64”) are technically a part of the Proposed Plan, those revisions are included as a
5 separate document for clarity and separate consideration. Another required element, the record
6 from this EIB Rulemaking Proceeding, will be submitted as a separate document along with the
7 State Plan and amended Part 64.

8 New Mexico has 143 landfills. Of these, 9 are located in Bernalillo County. The remaining
9 134 are required by the Guidance Document to be included in the Proposed Plan’s inventory of
10 existing MSWLs affected by the Emission Guidelines. *See* NMED Exhibit 11, p. 12.

11 Proposed Plan Section 1

12 Proposed Plan Section 1, entitled “State Responsibilities and Processes under 40 CFR 60
13 Subpart Cf,” NMED Exhibit 11, pp. 2-3, addresses the following Plan Elements:

- 14 • Item 1 addresses Plan Element No. 1, identification of an enforceable State
15 mechanism for implementing the Emission Guidelines;
- 16 • Item 3 addresses Plan Element No. 6, State process for review and approval of site-
17 specific gas collection and control system design plans; and
- 18 • Item 5 addresses Plan Element No. 10, provision for annual State progress reports
19 to EPA on implementation of the State Plan.

20 The remaining items in Section 1 (items 2 and 4) are explanations of required facility reporting
21 processes that the Department already employs or will employ. These items were included for
22 clarity regarding the reporting requirements, as well as to provide relief from duplicative reporting
23 efforts on the part of affected facilities, which are also required to submit reports to the
24 Department’s Solid Waste Bureau. Because some required reports are shared with the Solid Waste

1 Bureau, the authority matrix (beginning on page 4 of the Proposed Plan, NMED Exhibit 11),
2 includes legal authority citations to the Solid Waste Act.

3 Proposed Plan Section 2

4 Section 2 of the Proposed Plan, entitled “Legal Authority,” (NMED Exhibit 11, pp. 4-8)
5 contains an explanatory statement discussing the statutory and regulatory authority for
6 implementing the Proposed Plan, along with a matrix identifying the specific statutes and
7 regulations. This section addresses Plan Element No. 2 by demonstrating the authority of the Board
8 or the Department to:

- 9 • Adopt emission standards and enforceable conditions;
- 10 • Enforce the relevant laws, regulations, standards and compliance schedules
11 referenced in Section 111(d);
- 12 • Obtain information necessary to determine compliance;
- 13 • Require recordkeeping, make inspections and conduct tests;
- 14 • Require the use of monitors and submission of emission reports of MSWL owners
15 or operators; and
- 16 • Make emissions data available to the public.

17 For each requirement, the specific statutes and rules that fulfill those requirements are listed in the
18 second column of the matrix. These include statutory references to the Air Quality Control Act,
19 the Environmental Improvement Act, and the Solid Waste Act; Air Quality and Solid Waste rules
20 are also included in the demonstration.

21 Proposed Plan Section 3

22 Section 3 of the Proposed Plan, entitled “Emissions Inventory for Municipal Solid Waste
23 Landfills” (“Emissions Inventory”), (NMED Exhibit 11, pp. 9-11) estimates emissions from large
24 and small existing MSWLs for the 2015 inventory year based on the most recent reports submitted

1 to the Department. The Emissions Inventory includes only open landfills in New Mexico exclusive
2 of those located in Bernalillo County. The Albuquerque Environmental Health Department will
3 submit their emissions inventory for MSWLs located in Bernalillo County.

4 Large existing MSWLs – those with a Title V operating permit from the Air Quality Bureau
5 – report NMOC or methane emissions annually to the Air Quality Bureau. The Emissions
6 Inventory shows the amounts reported by these facilities for the year 2015 in Table 3, NMED
7 Exhibit 11, p. 10. Table 4 on page 11 shows the smaller active landfill emissions estimates. For
8 each these landfills, the Solid Waste Bureau supplied information on the year opened and the waste
9 acceptance rate. This information was entered into EPA’s LandGem model to estimate each
10 MSWL’s 2015 NMOC emissions. The large MSWL emissions estimates and the small MSWL
11 emissions estimates are summed in Table 5 on page 11 of the Proposed Plan.

12 Proposed Plan Section 4

13 Section 4 of the Proposed Plan, entitled “Inventory of Municipal Solid Waste Landfills in
14 New Mexico,” (NMED Exhibit 11, pp. 12-22) lists the 134 active, closed and locked MSWLs
15 under the jurisdiction of NMED. The Solid Waste Bureau supplied the Air Quality Bureau with
16 the information from the SWB’s database. The information required for each MSWL includes the
17 name, location, status, and owner name and address.

18 These four items, along with the proposed revisions to Part 64 and the record from this
19 rulemaking proceeding, comprise the Proposed Plan. EPA conducted an initial review of the
20 Proposed Plan and has unofficially stated that the plan adequately addresses every required
21 element outlined in the Emission Guidelines and Guidance Document.

1 **IV. Proposed Revisions to 20.2.64 NMAC**

2 The Department proposes revisions to 20.2.64 NMAC – *Municipal Solid Waste Landfills*
3 (“Part 64”) in response to the promulgation of 40 C.F.R. 60 Subpart Cf (“Subpart Cf”). Part 64 is
4 federally enforceable but is not part of the State Implementation Plan. A copy of the original
5 proposed amendments (“Proposed Amendments”) is included as NMED Exhibit 6 in
6 redline/strikeout format. Due to comments received, a revised proposal to repeal and replace is
7 included and will be discussed below. (*See* NMED Exhibits 9 and 10.)

8 Adoption of performance and emission standards is authorized by the New Mexico Air
9 Quality Control Act, NMSA 1978, §§ 74-2-1 through -22. Section 74-2-5(C) of the act provides
10 as follows:

11 Regulations adopted by the environmental improvement board or the local board
12 may:
13 ...
14 (2) prescribe standards of performance for sources and emission standards for
15 hazardous air pollutants that, except as provided in this subsection:
16 (a) shall be no more stringent than but at least as stringent as required by federal
17 standards of performance; and
18 (b) shall be applicable only to sources subject to such federal standards of
19 performance;
20 ...

21 MSWLs that were affected facilities under 40 C.F.R. Part 60, Subparts Cc (1996 emission
22 guidelines for existing MSWLs) and WWW (1996 NSPS for new MSWLs) are now affected
23 facilities under Subpart Cf. Compliance for these facilities begins on the effective date of EPA
24 approval of the State’s plan implementing the Emission Guidelines.

25 Part 64 is the State’s rule for implementing and enforcing the Emission Guidelines, and is
26 a part of the Proposed Plan to meet the requirements of Subpart Cf. Part 64 directs existing
27 landfills to comply with the Emission Guidelines and new landfills to comply with the new NSPS.

1 Part 64 meets the stringency provisions of Section 74-2-5(C) by requiring that affected facilities
2 comply with all aspects of those guidelines.

3 The Department proposes to revise Part 64 as follows:

4 Section 7 – Definitions

5 The proposed revisions to Section 7 include adding definitions for terms used elsewhere in
6 Part 64. These additions include:

- 7 • Active municipal solid waste landfill (or active MSWL);
- 8 • Closed municipal solid waste landfill (or closed MSWL); and
- 9 • Modification.

10 The additional definitions conform to the definitions found in 40 C.F.R. Part 60, Subparts Cf and
11 XXX.

12 In addition, minor language changes in the opening paragraph of Section 7 provide clarity
13 regarding the origin of the definitions (Subparts Cf and XXX). Other minor language changes,
14 found in proposed definitions C (“Existing municipal solid waste landfill” or “existing MSWL”),
15 E (“Municipal solid waste landfill” or “MSWL”), and F (“New municipal solid waste landfill” or
16 “new MSWL”) are necessary to completely cover the terminology found in Part 64.

17 Because the applicability date for distinguishing between existing and new MSWLs
18 changed with the promulgation of Subparts Cf and XXX, proposed definitions C and F reflect the
19 new applicability dates, using language found in those rules.

20 Finally, proposed definition G (“NMOC”) updates the reference to the measurement
21 provisions for non-methane organic compounds.

22 Section 9 - Documents

1 The proposed revision to Section 9 removes an outdated address for the Air Quality Bureau.
2 Instead of changing the address to the current address, the proposed revision adds the current
3 address as a note. This way, if the Air Quality Bureau should change locations, a hearing will not
4 be necessary to update the address.

5 Section 109 – Applicability

6 The proposed revisions to Section 109 are required to update date and Subpart references
7 which are no longer valid. This section also contained an incorrect promulgation date in the
8 original proposal; in response to comments received on March 15, 2017, the promulgation date
9 has been corrected in the Revised Proposed Part 64. (*See* NMED Exhibit 10.) Other minor
10 language changes are made for clarity.

11 Section 110 – Permitting Requirements

12 One proposed revision to Section 110 replaces the word “or” with “and” for design capacity
13 thresholds, in accordance with Subparts Cf and XXX. Additional minor language changes add
14 clarity regarding which landfills are not subject to operating permit requirements and construction
15 permit requirements.

16 Section 111 – Requirements for Existing Municipal Solid Waste Landfills

17 The proposed revisions to Section 111 include:

- 18 • Subsection A – simplification of the reporting requirements which, by referring to
19 the requirements of Subpart Cf, eliminates unnecessary language while expanding
20 the actual reporting requirements found in Subpart Cf.

- 21 • Subsection B – requires additional notification for “increments of progress” for
22 installation of any required gas collection and control system, as required in Section
23 111(d) plans, per the Guidance Document (Exhibit NMED 9, pages 3-18 to 3-21).
24 The dates found in paragraphs 1 – 4 of this subsection are both required as an
25 enforceable element in the State Plan, and are considered achievable by those with
26 experience in such installations. (NMED initiated a request for this information,
27 and receiving no response, contacted a consultant who previously worked with a
28 New Mexico landfill on installation of a gas collection and control system. The

1 dates outlined in the “increments of progress” were provided via a telephone
2 conversation with this consultant.)

- 3 • Subsection C includes minor additional language for clarity that this subsection
4 applies to both active and closed MSWLs.

5 **V. Effect of State Plan Adoption**

6 The state plan implementing the emissions guidelines under 40 C.F.R. Part 60 Subpart Cc
7 (“Original Plan”) was very similar to the Proposed Plan implementing the updated guidelines
8 required by 40 C.F.R. Part 60, Subpart Cf. The original hearing record, including required plan
9 elements, is available at <https://www.env.nm.gov/air-quality/proposed-regs/>. A few changes to
10 note include:

- 11 • Update to the enforceable mechanism (Part 64) as described above;
- 12 • Update to the legal authority demonstration;
- 13 • Update to the emissions inventory;
- 14 • Update to the MSWL inventory;
- 15 • Addition of introductory material; and
- 16 • Addition of state responsibilities and processes.

17 The Proposed Plan’s most significant departure from the Original Plan is that the
18 increments of progress (required under Section 111(d) of the CAA for all compliance schedules
19 longer than 12 months) are included in the proposed amendments to Part 64 at 20.2.64.111 NMAC.
20 Although the Original Plan was approved without these increments of progress, the Department
21 received a letter from EPA in 1998 which discusses the requirement for including specific
22 schedules. *See* NMED Exhibit 12. As discussed in that letter, when increments of progress are not
23 included in a state plan, each specific schedule requires that a public hearing be held, as each
24 schedule would be considered a State Plan revision. To avoid this scenario, the Department

1 proposes to include the increments of progress as general requirements of the Proposed Plan. The
2 Department requested comments from all active MSWL owners/operators regarding appropriate
3 schedules. *See* Exhibit NMED 13. The Department received no response to this request, and
4 subsequently contacted a consultant familiar with installation of gas collection and control
5 systems. Notes from this November 15, 2016 phone conversation are attached as NMED Exhibit
6 14. The schedules proposed in Section 111 of Part 64 reflect the consultant's suggestions.

7 Because the Proposed Plan requires compliance with the Emissions Guidelines, the
8 Department is confident that EPA requirements are met without imposing additional requirements
9 on MSWL owners and operators.

10 Implementation of the standards by the Department is more efficient and effective than
11 reliance on federal implementation. Department personnel routinely inspect affected sources to
12 determine compliance, and Department permit writers develop permit conditions for new and
13 modified sources. Therefore, the Department is well-positioned to determine which standards are
14 applicable to sources and to determine source compliance. While the EPA retains oversight
15 authority through the Region 6 office in Dallas, they do not have the staff and resources to perform
16 day-to-day implementation. Generally, both the EPA and the regulated community prefer that the
17 Department implement and enforce the air quality regulations.

18 **VI. Public Outreach**

19 Staff from the Air Quality Bureau worked with staff from the Solid Waste Bureau to
20 complete a contact list for all active MSWLs over which the Department has jurisdiction. An email
21 notice of an October 18, 2016 informational meeting was sent to these 34 contacts on October 7,
22 2016. *See* NMED Exhibit 15. Four people attended this meeting in Albuquerque, representing one

1 landfill and one consulting firm. The presentation materials and handouts prepared for this meeting
2 are attached as NMED Exhibits 16 and 17, respectively.

3 Additional outreach was conducted to gain input for increments of progress, as described
4 above.

5 A web notice, located on the “Proposed Regulations” page of the Department web site, was
6 posted in late December of 2016. This notice announced the promulgation of the new federal rules
7 and New Mexico’s intent to develop a state plan, including proposed revisions to Part 64. This
8 notice included a fact sheet for download, as well as contact information for questions. A
9 screenshot of this notice is attached as NMED Exhibit 18. The fact sheet linked to the notice is
10 attached as NMED Exhibit 19.

11 An update to the web page announcement was posted on February 2, 2017. A screenshot
12 of the updated announcement is included as NMED Exhibit 22. The public notices for this proposal
13 and hearing were published in the New Mexico Register in both English and Spanish on February
14 14, 2017. *See* NMED Exhibit 20. Identical notices were posted in the Albuquerque Journal in both
15 English and Spanish on February 16, 2017. *See* NMED Exhibit 21. All notices included an option
16 to request an informational Open House; however, no such requests were received.

17 An email announcement was also sent to the MSWL contacts list and the Regulatory
18 Changes email subscriber list on February 2, 2017. *See* NMED Exhibit 23.

19 At the time of this filing, the Department has received two sets of industry comments.
20 These comment letters are included as NMED Exhibit 25. A summary of these comments and
21 NMED’s response, was posted to the web site on March 22, 2017 and is included as NMED Exhibit
22 26. The first part of this summary (related to Thorley comments) was sent to EPA Region 6 and

1 from there was forwarded to the EPA Office of Air Quality Planning and Standards. Clarification
2 was offered on several points and are included in NMED's response.

3 **VII. Effect on Small Business**

4 Pursuant to the Small Business Regulatory Relief Act, NMSA 1978, §§ 14-4A-1 through -
5 6, the Bureau has determined that the regulatory changes proposed in this action will not have an
6 adverse effect on small business. This determination is based on the fact that the proposed
7 amendments will not impose additional substantive requirements on facilities, but will simply
8 retain implementation authority with the State of New Mexico rather than the EPA. Nonetheless,
9 on March 17, 2017, the Department provided the Small Business Regulatory Advisory
10 Commission ("SBRAC") with notice of this hearing, via the letter attached as NMED Exhibit 23.
11 The SBRAC responded via a letter dated March 20, 2017, stating that the SBRAC "finds no
12 adverse implications" for New Mexico small businesses from the proposed State Plan and rule
13 amendments, and stated its support for the proposed amendments. A copy of the SBRAC's letter
14 is attached as NMED Exhibit 27.

15 Additionally, the New Mexico Environment Department Small Business Environmental
16 Assistance Program provides ongoing technical assistance for small businesses regarding new and
17 existing environmental regulatory requirements.

18 **VIII. Compliance with New Mexico Air Quality Control Act § 74-2-5.E**

19 Pursuant to the requirements at 74-2-5.E in the New Mexico Air Quality Control Act, this
20 proposed plan and rulemaking:

- 21 1. will not interfere with health, welfare, visibility and property as emission thresholds
22 will be lower than the previous emission guidelines;
- 23 2. is in the public interest, as it protects air quality without imposing requirements
24 beyond the federal emission guidelines; and

- 1 3. provides for technical practicability and economic reasonableness of required
2 control of air pollutants, as determined by EPA and as allowed by individual
3 exceptions to standards and compliance times in Part 64.

4 **IX. Change of Form of Revisions to Part 64**

5 The State Records Center has advised the Department that the simplest and clearest way to
6 effect the revisions described above is to repeal and replace the current Part 64. This is because
7 many sections contain revisions and several of these revisions are substantial. For this reason, the
8 Department now revises its original proposal to reflect this request per the documents attached as
9 NMED Exhibits 9 and 10, the repeal of Part 64 and the replacement of Part 64 respectively. This
10 revised proposal to repeal and replace Part 64 includes the promulgation date correction discussed
11 above, but does not otherwise alter the substance of the amendments discussed above; rather, it
12 alters the form.

13 **X. Conclusion**

14 This concludes my testimony regarding the Department's Proposed Plan to implement the
15 Emissions Guidelines at 40 C.F.R. Part 60, Subpart Cf, including the revised proposed
16 amendments, as a repeal and replacement, to Part 64. The Department requests that the Board
17 adopt both the Proposed Plan and the proposed Repeal and Replacement of Part 64 at the
18 conclusion of the hearing on this matter. The Department advises the Board that Part 64 may be
19 further revised to correct any typographical errors and to reflect formatting changes required by
20 the Administrative Law Division of the New Mexico Commission of Public Records for
21 compilation into the New Mexico Administrative Code.