10/16/24

# Minutes
# Environmental Management Commission Meeting
# Alabama Department of Environmental Management Building
# 1400 Coliseum Boulevard
# Montgomery, Alabama 36110-2400
# August 9, 2024

**This is to certify that the Minutes contained herein are a true and accurate account of actions taken by the Alabama Environmental Management Commission on August 9, 2024.**

**A. Frank McFadden, Chair**
**Alabama Environmental Management Commission**

**Certified this 11th day of October 2024.**

**Minutes**
**Environmental Management Commission Meeting**
**Alabama Department of Environmental Management Building**
**1400 Coliseum Boulevard**
**Montgomery, Alabama 36110-2400**
**August 9, 2024**

**Convened: 11:00 a.m.**
**Adjourned: 11:34 a.m.**

**Part A**

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# Part A

MEETING OF THE

ALABAMA ENVIRONMENTAL MANAGEMENT COMMISSION

LOCATION: ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM) BUILDING
ALABAMA ROOM
1400 COLISEUM BOULEVARD
MONTGOMERY, ALABAMA 36110-2400

DATE: FRIDAY, August 9, 2024

TIME: 11:00 A.M.

**********

REPORTED BY: JEANA S. BOGGS, CCR
Commissioner for the
State of Alabama at Large



APPEARANCES

COMMISSION MEMBERS PRESENT:
A. FRANK McFADDEN, P.E., CHAIR
KEVIN MCKINSTRY, VICE CHAIR
JOHN (JAY) H. MASINGILL, III
RUBY L. PERRY, D.V.M.
J. PATRICK TUCKER, M.D.

COMMISSION MEMBERS NOT PRESENT:
H. LANIER BROWN, II, ESQ.
MARY J. MERRITT

ALSO PRESENT:
LINDSAY BARTON, ESQ., EMC LEGAL COUNSEL
LANCE LEFLEUR, ADEM DIRECTOR
DEBI THOMAS, EMC EXECUTIVE ASSISTANT



MR. MCFADDEN: Okay. Welcome to the August 9th meeting of the Environmental Management Commission. We got here in a cool vehicle, or going home in a cool one. We'll call the meeting to order. And we do have a quorum here, so that's acknowledged.

Item Number 1 on the agenda is: Consideration of the Minutes. The Chair notes that Agenda Item 1 is the minutes from the meeting -- Commission meeting held on June 14th, 2024. And I'll entertain a motion regarding the minutes.

DR. TUCKER: I move to accept the minutes.

MR. MASINGILL: Second.

MR. MCFADDEN: Okay. I have a motion and a second. Any discussion on the minutes?

(No response).

MR. MCFADDEN: All right.



Hearing none, I'll call for the question. All in favor, raise your hand.

(Commission Members raising hands).

MR. MCFADDEN: And all opposed, same?

(No response).

MR. MCFADDEN: The motion carries.

Item Number 2, Report from the Director.

MR. LEFLEUR: Good morning. Welcome to all of those who are here at the final meeting of the Alabama Environmental Management Commission for Fiscal Year 2024.

As is our custom, this August report will cover the Department's Environmental Justice and related activities. We will also review several civil rights complaints that have been filed against the

Department.

Environmental Justice, often referred to as "EJ," has been receiving heightened attention from this federal administration. In EPA's five-year strategic plan, it is second in priority only to climate change and ranks well ahead of clean air, clean water, and clean land. As a result of the Commission's ongoing interest in Environmental Justice for many years, it is now part of our regular reporting routine to update you on EJ and related activities of the Department.

Each of the last four updates to the Commission's and Department's five-year Unified Strategic Plan have clear objectives related to the fair treatment of, and proactive outreach to, all stakeholders, particularly those in minority and disadvantaged communities. The annual Operating



Plans of the Department implement the efforts to achieve those objectives.

Environmental Justice is related to civil rights law, diversity, environmental regulation, and social justice. Each of these falls under the heading of fair treatment.

As we have done in the past, this report begins with a reminder of the major milestones in our nation's journey toward assuring fair treatment for all.

Title VI of the Civil Rights Act of 1964 prohibits the recipients of federal funds from engaging in discriminatory treatment of individuals based on race, color, or national origin. It is the law. ADEM receives federal funds and is, therefore, subject to that law.

In the late 1960s, the movement toward diversity began to take hold as a concept and has developed over



the years to encompass the ideas of equity and inclusion with several initiatives, including at least one Presidential Executive Order related to federal government executive branch employment. ADEM wholeheartedly embraces the concepts of equal opportunity and fair treatment for diverse groups.

On the environmental side of fair treatment, in the 1970s, the Clean Water Act, the Clean Air Act, Safe Drinking Water Act and the Resource Conservation and Recovery Act became laws. The State of Alabama, through ADEM, has been delegated authority to administer those federal environmental laws under conforming State laws.

The formal concept of Environmental Justice came about through a 1994 Presidential Executive Order to address perceived



environmental burdens borne by low income and minority populations. Although Presidential Executive Orders are only binding on certain federal agencies, including EPA, in the Executive Branch of the federal government, ADEM has determined EJ is a worthy concept and voluntarily embraces the EJ fair treatment goals.

It is worth noting that EPA's External Civil Rights Compliance Office has audited the Department's civil rights nondiscrimination program more than any other nondiscrimination program in the nation. I am pleased that each audit determined the program met or surpassed all legal requirements.

The Department goes beyond simply complying with the law. Today's report will show again that we are going the extra mile to invest in activities to achieve fair

treatment for all those in our state.

The ADEM Environmental Justice Program continues to incorporate four main goals. First, to deepen EJ practices to improve the health and environment of overburdened communities. This includes engaging those communities in rulemaking, permitting, and compliance issues, as well as employing innovative tools to communicate with all stakeholders.

The second goal is to work with various partners to expand our positive impact within communities with EJ concerns. This involves working with our state government and local governments, federal agencies, primarily EPA, and nongovernmental community organizations.

The third goal is to demonstrate progress on significant Environmental Justice challenges. Measuring actual results is an area where ADEM has



been well out ahead of EPA and many other states.

The final goal is to implement the federal initiative to direct 40% of federal program benefits to disadvantaged communities. That initiative is called "Justice40." The federal administration analyzed selected data and developed a map that identifies each of the census tracts deemed disadvantaged for the Justice40 initiative. ADEM uses this map to track our Environmental Justice results that you will see in upcoming slides.

Looking at the ADEM EJ program, we begin by highlighting that ADEM has dedicated the necessary human resources to make our EJ efforts successful.

EJ coordinators have been designated in our Air, Land, Water, and Permits and Services Divisions.



Because of the importance of this effort, the coordinators' EJ activities are overseen by the Deputy Director. The Deputy Director meets with the coordinators regularly to manage activities and assess progress.

The personnel assigned to coordinate EJ activities receive the specialized training necessary to be effective in their work. The ongoing training often involves EPA sponsored programs.

In addition to specialized training for our EJ Coordinators, we formally train each of our personnel in the basic concepts of fair treatment.

We begin with the requirements of the law, Title VI of the Civil Rights Act of 1964. We are all required to comply with this law, so each employee is trained in the



requirements of the law. We utilize an online program initially developed by EPA that is now housed in the Department.

A formal training program recognizing the benefits of and our emphasis on diversity was implemented in 2020. As with Title VI, all personnel are required to complete the video training program.

In addition to training our assigned EJ Coordinators, as noted earlier, for more than ten years, the Department has provided in-house formal Environmental Justice training for every member of our staff.

At ADEM's urging, EPA worked with ADEM to develop a formal EJ training program for EPA. Every ADEM employee is required to complete that training program. EPA is now using the program as the basis for EJ training throughout the nation.

The Department also focuses on results. The federal objective is to direct at least 40% of all benefits from federal actions to disadvantaged communities. As you will see in the following slides, the twelve EJ program metrics ADEM has been tracking for many years have concentrations of between 62% and 99% in, or abutting, communities with EJ concerns.

Our EJ/Justice40 areas have 62% of the air-monitoring sites versus 58% last year; 65% of the recipients of special compliance assistance for Aboveground Storage Tanks, the same as last year; 73% of the scrap tire cleanups, down from 76% last year; 76% of the illegal dump cleanups from the Department's Solid Waste Fund for innocent landowners, down slightly from 77%; 78% of the brownfields cleaned up, up slightly from 77% last



year; 90% of the fish tissue sampling stations, up substantially from 77% last year. 90% of our water quality sampling stations are in Justice40 communities, down slightly from 91% last year; 96% of the waterbodies with Total Maximum Daily Load limits, the same as last year; 97% of the assessed waterbodies, up from 93%; 97% of the diesel retrofit grants, down from 100%; 98% of stream miles with TMDLs, up from 96%; and 99% of the nonpoint source pollution control project awards, down from 100% last year.

These metrics vary slightly by a few percentage points year to year but are generally consistent. As data on the slides clearly demonstrates, ADEM far exceeds the 40% goal in the Justice40 initiative in those areas where benefits can be measured.



In addition to formal EJ training and tracking actual results, the Department also gives extra ranking weight to EJ areas: When funding water and sewer projects through the American Rescue Plan Act, Bipartisan Infrastructure Law, and the State Revolving Fund loan programs that I will report on in a few moments.

Justice40 areas also received extra ranking weight in eligibility for partial principal forgiveness in drinking water and wastewater State Revolving Fund loan programs not associated with the ARPA and BIL programs.

Extra ranking weight is given when prioritizing which unauthorized dump sites are to be cleaned up, also for demonstration projects in our scrap tire, recycling, and other programs.



And the Department provides extra ranking weight in the various other grant programs administered by the Department. This is just to name a few.

The Department has also gone beyond activities that can be measured quantitatively with fair treatment initiatives such as: Special compliance assistance to local governments in areas with Environmental Justice concerns; enhanced marketing of low interest loans and grants to drinking water and wastewater systems in disadvantaged areas; targeted health and education initiatives in EJ areas; focused brownfields redevelopment in disadvantaged areas of Alabama.

As in years past, ADEM has held increased community meetings, formal hearings, roundtables and listening

sessions in disadvantaged areas.

The Department also holds regular grant writing workshops to help EJ communities take advantage of numerous grant funding sources, and we undertake direct mailings to every household within a given radius for high interest activities by the Department in communities with EJ concerns.

The Department is dedicated to fair treatment and proactive outreach to all stakeholders, especially those in communities with EJ concerns. To summarize, our goals reflect that dedication. Specific personnel are assigned to coordinate the Department's EJ activities. All our employees are formally trained in the principles of fair treatment. We use metrics to quantitatively measure actual results, including tracking where the benefits of federal



programs are received. And the Department also focuses on the qualitative actions to advance fair treatment.

ADEM fair treatment activities are systematic, focused, and results oriented. These efforts are not mandated by statute or regulation.

A copy of a more detailed outline of ADEM's Environmental Justice and related activities, is in a booklet titled "Community Engagement," a copy of which is on the table in the lobby for review.

The booklet is a living document subject to update and input from interested parties. The electronic version of "Community Engagement" is also available on the homepage of the Department's website. The reason we put the document online is to provide the public with a way to hold the Department accountable for its



activities to ensure fair treatment for all individuals in Alabama.

The passage of the Clean Water Act in 1972 prompted substantial investments in drinking water and wastewater infrastructure. Competing priorities have caused systems throughout the nation, particularly those in disadvantaged areas, to neglect ongoing investments to properly maintain the infrastructure. After 50 years, upgrades are needed.

The recently enacted American Rescue Plan Act, sometimes referred to as ARPA, and the Bipartisan Infrastructure Law, referred to as BIL, provided substantial one-time funding for various purposes, including upgrades to crumbling water and sewer infrastructure. A significant portion of the State's ARPA funding was allocated for water and sewer upgrades and was



appropriated to ADEM by the Alabama Legislature following a proposal by the Governor. BIL funds were directly allocated to ADEM through a federal appropriation.

The Department contacted each of the 1,061 public drinking water and wastewater systems in Alabama requesting proposed projects for upgrades.

Approximately $3.4 billion of proposed projects were submitted. Each proposed project was analyzed from an engineering standpoint to assess the physical plant needs. The audited financial statements of each system were also analyzed to determine the financial needs of the individual systems.

In keeping with ADEM's commitment to fair treatment, especially in EJ and other disadvantaged communities, the

Department has utilized a needs-based approach to allocating ARPA, BIL, as well as State Revolving Funds funding for individual projects.

With the more than $1 billion in project awards from the ARPA and BIL programs beginning date in 2022, plus the SRF programs during the same period, ADEM has continued to focus on Justice40 areas.

As with our standard annual metrics summarized a moment ago, this historic one-time funding opportunity has resulted in more than the Federal goal of 40% of the benefit going to disadvantaged communities. ADEM is the lead in making that happen in Alabama.

Although the Department has a robust program to assure fair treatment and active outreach to disadvantaged and minority communities, we are the subject of



certain claims of discrimination under Title VI of the Civil Rights Act of 1964. In the past, there have been several Title VI complaints against ADEM by activist groups filed with EPA. After thorough investigation, without exception, every complaint has been dismissed by EPA with no finding of discrimination. In recent months, there have been three Title VI complaints filed that are still pending.

The first case involves a claim filed in the spring of 2023 with EPA alleging that the Department discriminated against certain individuals by not awarding loans or loan forgiveness under its Clean Water State Revolving Fund program for individual residential on-site septic systems in the fall of 2022. ADEM has responded that the



Department, like most other states, has determined that funding public wastewater systems is the most effective method to reach unserved residences. The Federal Clean Water State Revolving Fund program rules recognize this, and there is no requirement to offer funding for individual on-site septic systems.

For those individual residences in areas where it is not feasible to extend public wastewater systems, Alabama has other programs overseen by the Alabama Department of Public Health to address individual on-site septic system needs. The Department has stated that it is apparent no discrimination has occurred and dismissal of the complaint is anticipated.

The second discrimination case alleges that, by issuing five Title V air permits over a one-week period,



citizens were denied the opportunity to adequately consider and comment on the permits. The Department has responded that the issuance of the permits was simply the final step, following between 300 and 900 days for public review and comment, depending on the individual permit, that included EPA consideration of petitions filed by the complainants to have EPA deny the permits.

It was also noted that the complainants did, in fact, submit voluminous comments. Finally, it was noted that the volume of permits up for renewal, which each of these were, has often required the issuance of multiple permits within a short timeframe. The Department has determined that the facts do not support any finding of discrimination.

Unlike the Title VI complaints

filed against the Department that were all filed with EPA, the third pending Title VI discrimination complaint was filed directly with the Department under ADEM's Title VI complaint procedures. It alleges that certain communities in an area where permits for a limestone quarry were being considered by the Department were not provided enhanced outreach regarding the proposed permitting actions. It further states that the EPA-developed tool used to determine whether there is a community qualifying for enhanced outreach was not an adequate method to identify if a community was entitled to enhanced outreach. The Department has assigned an attorney to investigate these claims, and a report detailing the findings is expected in the near future.

That concludes today's report.



I will be pleased to answer any questions the Commission may have.

MR. MCFADDEN: Does anybody have anything?

(No response).

MR. MCFADDEN: Thank you, Lance.

MR. LEFLEUR: Thank you.

MR. MCFADDEN: Item Number 3, agenda item is Report from the Commission Chair. I'll just make it brief.

I want to thank fellow commissioners for the hard work this year. The public doesn't see what goes on between meetings, but we have a lot of homework between meetings and a lot of considerations and things to consider.

So, I appreciate the hard work and look forward to another good year as well with the Department. And I think our director has pointed out today regarding several programs, the



funding programs, the EJ issues. We're highly ranked among states, state agencies. And so, thank you, Lance and Jeff, Marilyn, all of you who have managed this program. And I've told this before, I've dealt with regulators, environmental regulatory agencies across the country, from the West Coast to the East, and we have a good program here. The EPA recognizes that, as Lance has pointed out, we're in the top ten. They don't rank them one through ten, as I understand it. It is just the top ten, and we're in the top ten. And those were ranked by EPA, I believe if I'm correct.

So, not that we're perfect. Not indicating that. There are things we can improve on and are improving on. So, thank the Commission and the Department for the hard work all year.



Okay. That's Item Number 3. Agenda Item Number 4 is Consideration of proposed amendments to ADEM Administrative Code Division 335-3, the Air Pollution Control Program Regulation.

And, Mr. Gore, are you going to comment on that?

MR. GORE: I'm going to try to get there.

MR. MCFADDEN: Come on.

MR. GORE: Okay. Good morning, Mr. Chair, lady, gentlemen. My name is Ron Gore. I'm with the Department's Air Division. I'm here to ask you to change some regulations in the Air Program.

These changes fall in two areas. One is a kind of a catch up with all the EPA rules we adopt by reference. We do that every six months or a year, just routinely.

And then when you adopted some

landfill rule changes several months ago, a mistake was made that wasn't caught until too late in the process to fix it administratively, and we're asking to fix that problem. Nobody argues that it's not worth doing.

We held a public comment period on these rules from April 24th to June the 12th. Public hearing was held June 10th. We did receive one comment, but it was not relevant to the rules under consideration for change, so there's really no need to address it.

And so, with all that, I ask that you adopt these changes pending any questions you might have of me.

MR. MCFADDEN: Does anybody have anything?

(No response).

MR. MCFADDEN: Okay. All right. No questions. Then we'll get to the motion here. I'll entertain a motion



from the Commission regarding the proposed amendments to the Air Pollution Control Program Regulations.

MS. PERRY: I move to adopt the proposed amendments.

MR. MCFADDEN: Second motion?

MR. MCKINSTRY: Second.

MR. MCFADDEN: I have a motion and a second. Any further discussion on it?

(No response).

MR. MCFADDEN: Hearing none. I'll call for the question. All in favor, raise your hand.

(Commission Members raising hands).

MR. MCFADDEN: All opposed?

(No response).

MR. MCFADDEN: And the motion carries.

MR. GORE: Thank you.

MR. MCFADDEN: Thank you, Ron.



Okay. Moving on to Agenda Item 5, it is Consideration of proposed amendments to ADEM, Administrative Code Division 335-13, Solid Waste Program Regulations, State Solid Waste Management Plan and Recycling. Mr. Cobb.

MR. COBB: Yes. Thank you, Mr. Chairman, and good morning, Commissioners.

I'm Stephen Cobb, Chief of the Land Division, and I'm here today to recommend that the Commission adopt amendments to the Department's Division 13 Solid Waste Program Regulations.

Amendments were proposed to Chapters 1, 3, 9, 10 and 13 of the Division 13 Solid Waste Regulations. Specifically, changes were proposed to Chapter 1 to update and add definitions to be consistent with the statute; to Chapter 3 to update the



semiannual reporting requirements to an annual basis, outline the length of time that registrations were valid and to amend existing regulations for the processing and recycling of solid waste.

In addition, changes were proposed to clarify and incorporate the State Solid Waste Management Plan in Chapter 9, the Alabama Recycling Fund Grants Program in Chapter 10, and to update the statewide Solid Waste Reduction Goal in Chapter 13.

The proposed revisions were the subject of a public comment period which ran from April 24th to June 20th. A public hearing was held at the Department on June 20th, and oral comments were received during the hearing and written comments were received during the public comment period.

After reviewing and evaluating

all of the comments received, the proposed revisions to Chapters 1 and 3 will not be finalized at this time. The Solid Waste Program will continue to evaluate the proposed regulations and modify these chapters at a later date.

Based on the comments received, Rule 13-13-.02 was modified to better clarify the inputs associated with the formula for the solid waste reduction goal. These changes are included and described in the reconciliation package provided to the Commission.

The proposed regulations are presented today for your consideration, and the Department asks that the Commission adopt the proposed changes to Chapters 9, 10 and 13 of the Division 13 Solid Waste Program.

And I'll be happy to answer any



questions that you might have.

MR. MCFADDEN: So, there will be followup amendments later on is what I understood, right?

MR. COBB: Right. Basically, we will go back to rulemaking for Chapters 1 and 3 considering the additional comments that we receive to better establish those changes before we go forward to finalize.

MR. MCFADDEN: Okay. So, sections 9, 10 and 13 of Division 13 is what we're talking about?

MR. COBB: Correct.

MR. MCFADDEN: Okay. Does anybody have any additional questions of Mr. Cobb?

(No response).

MR. MCFADDEN: Okay. All right. I'll entertain a motion regarding the proposed amendments to the Solid Waste Program regs and specifically State Solid Waste Management Plan and



Recycling.

DR. TUCKER: I move to adopt the amendments.

MR. MASINGILL: Second.

MR. MCFADDEN: I have a motion and a second. Any discussion on this?

(No response).

MR. MCFADDEN: The Chair calls for the question. All in favor, raise your hand.

(Commission Members raising hands).

MR. MCFADDEN: All opposed?

(No response).

MR. MCFADDEN: The motion carries.

MR. COBB: Thank you.

MR. MCFADDEN: Thank you.

Okay. Moving on to Agenda Item Number 6, is there any other business to come before the Commission?

(No response).



MR. MCFADDEN: Okay. Hearing none, we go to Agenda Item Number 7, Future business. The next Commission meeting is October the 11th. And does anyone know what their schedule permits right now to be here on October the 11th?

(No response).

MR. MCFADDEN: We think we should have a quorum.

Okay. All right. Public comment period is next on the agenda. The Chair notes that there's one request to make a presentation as follows: Request from John P. Hagood, Scrap Recyclers Association of Alabama. And proposed amendments to ADEM Administrative Code 335-13 that we just amended or voted on Solid Waste Program. So, Mr. Hagood, thank you for coming.

MR. HAGOOD: Thank you, Mr. Chairman, members of the Commission.

Mr. Cobb's recommendation and your official action has eased the angst of a lot of people in our association and moves my comments from those of advocacy to appreciation of this Department and its willingness to work with stakeholders, and especially Lynn, who had to put up with the voluminous comments that I put in on these rules.

So, with that, I look forward to working with the Department further on those two chapters that we removed today and remove my request for comment.

Thank you very much.

MR. MCFADDEN: Thank you very much. Appreciate you for coming.

Every now and then the Chairperson will make a mistake, and I did not get a motion by the Commission to hear you, Mr. Hagood.



But since you withdrew those, maybe it all works out in the end. So, sorry about that.

MS. PERRY: Mr. Chairman, I would like to make a comment --

MR. MCFADDEN: Yes.

MS. PERRY: -- is that typically we don't get those kinds of comments. I was so pleased to say that at least the public is working with us. So, thank you for that.

MR. MCFADDEN: So, it worked out well considering I messed up. Okay. Thank you. All right.

MR. HAGOOD: I'm not sure I wanted to see the vote.

(Laughter).

MR. MCFADDEN: Okay. Let's see. Where are we? Debi, we're done with all that signed up for making presentations, right?

MS. THOMAS: Yes. There's no brief statements today.



MR. MCFADDEN: Okay. All right. No brief statements. Just making sure I hadn't messed up on something else here or missed something. Hearing none, so I guess we're -- I'll entertain a motion for adjournment.

MR. MASINGILL: Move to adjourn.

DR. TUCKER: Second.

MR. MCFADDEN: A motion and a second. Any discussion?

(No response).

MR. MCFADDEN: All in favor, raise your hand.

(Commission Members raising hands).

MR. MCFADDEN: All opposed?

(No response).

MR. MCFADDEN: The motion carries.

Thank you for coming.

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(Meeting concluded at approximately 11:34 a.m.)

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REPORTER'S CERTIFICATE

* * * * *

STATE OF ALABAMA

TALLAPOOSA COUNTY

I, Jeana S. Boggs, Certified Professional Reporter and Notary Public in and for the State of Alabama at Large, do hereby certify on Friday, August 9, 2024, that I reported the meeting in the matter of:

MEETING OF THE

ALABAMA ENVIRONMENTAL MANAGEMENT COMMISSION

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM) BUILDING

ALABAMA ROOM

1400 COLISEUM BOULEVARD

MONTGOMERY, ALABAMA 36110-2400

That the foregoing 40 computer-printed pages contain a true and correct transcript of the meeting set out herein.



I further certify that I am neither of relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of such attorney or counsel, nor am I financially interested in the results thereof. All rates charged are usual and customary.

I further certify that I am duly licensed by the Alabama Board of Court Reporting as a Certified Court Reporter as evidenced by the ABCR number following my name found below.

This 12th day of September, in the year of our Lord, 2024.

_____

Jeana S. Boggs
ACCR NO. 7, Exp 9/30/2024
Certified Court Reporter and
Notary Public
Commission expires: 8/9/2027

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Part B

## Attachment Index

**Attachment 1**

**Amended 8/1/24**

AGENDA*
MEETING OF THE
ALABAMA ENVIRONMENTAL MANAGEMENT COMMISSION
DATE: August 9, 2024
TIME: 11:00 a.m.
LOCATION: Alabama Department of Environmental Management (ADEM) Building
Alabama Room (Main Conference Room)
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400



* The Agenda for this meeting will be available on the ADEM website, www.adem.alabama.gov, under Environmental Management Commission.

** The Minutes for this meeting will be available on the ADEM website under Environmental Management Commission.

1. CONSIDERATION OF MINUTES OF MEETING HELD ON JUNE 14, 2024

2. REPORT FROM THE ADEM DIRECTOR

3. REPORT FROM THE COMMISSION CHAIR

4. CONSIDERATION OF PROPOSED AMENDMENTS TO ADEM ADMINISTRATIVE CODE DIVISION 335-3, AIR POLLUTION CONTROL PROGRAM REGULATIONS

The Commission will consider proposed amendments to ADEM Administrative Code Division 335-3, Air Pollution Control Program Regulations. Revisions to the Division 3 Code are being proposed to amend ADEM Administrative Code Rules 335-3-10-.01, 335-3-10-.02, 335-3-11-.01 and 33S-11-.06, 335-3-19-.01, 335-3-19-.02 and 335-3-19-.03, and Appendix C. Revisions to the Division 3 Code are being proposed to incorporate by reference changes to the EPA's New Source Performance Standards (NSPS) and National Emissions Standards for Hazardous Air Pollutants (NESHAPs). Chapter 335-3-19 is being proposed for revisions to correct typographical errors, reference citations, and also to clarify which standard approvals are retained by EPA. Appendix C is being proposed for revision to reflect changes to Chapters 335-3-10. The Department held a public hearing on the proposed amendments on June 10, 2024.

5. CONSIDERATION OF PROPOSED AMENDMENTS TO ADEM ADMINISTRATIVE CODE DIVISION 335-13, SOLID WASTE PROGRAM REGULATIONS (STATE SOLID WASTE MANAGEMENT PLAN AND RECYCLING)

The Commission will consider proposed amendments to ADEM Administrative Code Division 335-13, Solid Waste Program Regulations (State Solid Waste Management Plan and Recycling). Revisions to the ADEM Administrative Code Rules 335-13-9-.02, 335-13-10, and 335-13-13-.02 are being proposed to amend existing regulations to clarify and update the State Solid Waste Management Plan, the Alabama Recycling Fund Grants Program, and the Statewide Solid Waste Reduction Goal. Rule 335-13-9-Appendix A is a new proposed rule incorporating the Solid Waste Management Plan. The Department held a public hearing on the proposed amendments on June 20, 2024.

6. OTHER BUSINESS

7. FUTURE BUSINESS SESSION

PUBLIC COMMENT PERIOD

a. REQUEST TO MAKE PRESENTATION

*Request from John P. Hagood, Scrap Recyclers Association of Alabama (SRAA)*
Description of presentation: Proposed amendments to ADEM Administrative Code Division 335-13, Solid Waste Program Regulations considered by the Commission at this meeting under agenda item 5.

b. BRIEF STATEMENTS BY MEMBERS OF THE PUBLIC REGISTERED TO SPEAK

Members of the public that wish to make a brief statement at a Commission meeting may do so by first signing in on a register maintained by the Commission office prior to each regularly scheduled meeting. The register will close ten minutes prior to convening each meeting of the Commission. Following completion of all agenda items, the Commission Chair will call on members of the public wishing to make a statement in the order their names appear on the register. Speakers are encouraged to limit their statement to matters that directly relate to the Commission's functions. Speakers will be asked to observe a three minute time limit. While an effort will be made to hear all members of the public signed on the register, the Commission may place reasonable limitations on the number of speakers to be heard. (Guideline 11, Guidelines for Public Comment).

The Guidelines for Public Comment are used in the application of ADEM Administrative Code 335-2, Environmental Management Commission Regulations, Rule 335-2-3-.05, Agenda and Public Participation. The Guidelines for Public Comment serve to educate and inform the public as to how the Commission interprets and intends to apply the Rule. The revised Rule 335-2-3-.05 was effective October 7, 2016.

**Attachment 2**

ADEM Alabama Department Of Environmental Management

ENVIRONMENTAL JUSTICE – FAIR TREATMENT

1

ADEM Alabama Department Of Environmental Management

## History of "Fair Treatment"

- 1964 Civil Rights Act Title VI - law
- 1968 Diversity, Equity, Inclusion - initiatives
- 1970s CAA, CWA, SDWA, RCRA - laws
- 1994 Presidential Environmental Justice - EO

2

ADEM Alabama Department Of Environmental Management

## ADEM Environmental Justice Goals

- Deepen EJ Practices
- Work with Partners
- Demonstrate Progress
- Meet Federal Justice40 Objectives

3

ADEM Alabama Department Of Environmental Management

## Designated ADEM Personnel to Coordinate EJ Activities

- Department-wide EJ coordinators
- EJ activities overseen by Deputy Director
- Meet with Deputy Director at least once per month
- Specialized training (e.g. EPA conferences)

4

ADEM Alabama Department Of Environmental Management

## Training ADEM Personnel

- Title VI of the Civil Rights Act of 1964
- Diversity
- Environmental Justice
  - In-house
  - EPA

5

ADEM Alabama Department Of Environmental Management

## Tracking Fair Treatment Results

- 62% of air monitoring sites
- 65% of special compliance assistance AST
- 73% of illegal scrap tire cleanups
- 76% of illegal dump cleanups from SWF
- 78% of brownfields cleaned up
- 90% of fish tissue sampling stations

6

ADEM Alabama Department Of Environmental Management

## Tracking Fair Treatment Results

- 90% of water quality sampling stations
- 96% of waterbodies with TMDLs
- 97% of assessed waterbodies
- 97% of diesel retrofit grants
- 98% of stream miles with TMDLs
- 99% of non-point source project awards

7

ADEM Alabama Department Of Environmental Management

## Increased Ranking Weight

- ARPA / BIL / SRF
- State Revolving Fund loan forgiveness
- Cleanup priorities
- Demonstration projects
- Grant programs

8

ADEM Alabama Department Of Environmental Management

## Additional ADEM EJ Initiatives

- Local Government compliance assistance
- Enhanced marketing of low interest Water & Sewer loans
- Health and Education initiatives
- Brownfield redevelopment assistance

9

ADEM Alabama Department Of Environmental Management

## Additional ADEM EJ Initiatives

- Increased community meetings, hearings, roundtables, listening sessions
- Grant writing workshops
- Direct mail to each household

10

ADEM Alabama Department Of Environmental Management

## ADEM Dedication to Fair Treatment

- Setting Fair Treatment Goals
- Dedicating Human Resources
- Training All Personnel
- Tracking Results
- Acting Qualitatively

11

ADEM Alabama Department Of Environmental Management

ALABAMA WATER AND SEWER FUNDING

12

ADEM Alabama Department Of Environmental Management

## Water and Sewer Funding

- All 1,061 Water & Sewer Systems Solicited
- $3.4 Billion of Projects Submitted
- Needs-based Allocation
- $1.0 Billion Available & Awarded
- Justice40 Areas Received >40%

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**Attachment 3**

**ENVIRONMENTAL MANAGEMENT COMMISSION**
**RESOLUTION**

WHEREAS, the Alabama Department of Environmental Management gave notice of a public hearing on the proposed revisions to ADEM Admin. Code 335-3 of the Department's Air Division – Air Pollution Control Program Rules in accordance with Ala. Code § 22-22A-8 (2006 Rplc. Vol.) and Ala. Code § 41-22-4 (2000 Rplc. Vol.); and

WHEREAS, a public hearing was held before a representative of the Alabama Department of Environmental Management designated by the Environmental Management Commission for the purpose of receiving data, views and arguments on the amendment of such proposed rules; and

WHEREAS, the Alabama Department of Environmental Management has reviewed the oral and written submissions introduced into the hearing record, and has prepared a concise statement of the principal reasons for and against the adoption of the proposed rules incorporating therein its reasons for the adoption of certain revisions to the proposed rules in response to oral and written submissions, such revisions, where appropriate, having been incorporated into the proposed rules attached hereto; and

WHEREAS, the Environmental Management Commission has considered fully all oral and written submissions respecting the proposed amendments and the Reconciliation Statement prepared by the Alabama Department of Environmental Management.

NOW THEREFORE, pursuant to Ala. Code. §§ 22-27-2, 22-27-7, 22-27-9, 22-27-12 (2006 Rplc. Vol.), and Ala. Code. § 41-22-5 (2000 Rplc. Vol.), as duly appointed members of the Environmental Management Commission, we do hereby adopt and promulgate these revisions to division 335-3 [Rule 335-3-10-.01 /General (Amend); Rule 335-3-10-.02 –/Designated Standards of

Performance (Amend); Rule 335-3-11-.01 / General (Amend); Rule 335-3-11-.06 / National Emission Standards for Hazardous Air Pollutants for Source Categories (Amend); Rule 335-3-19-.01 Definitions (Amend); Rule 335-3-19-.02 General Provisions (Amend); Rule 335-3-19-.03 Standards for Existing Municipal Solid Waste Landfills (Amend); Rule 335-3-C Appendix C- EPA Reference Documents For New Source Performance Standards and National Emission Standards For Hazardous Air Pollutants (Amend)] of the Department's Air Division – Air Pollution Control Program Rules, administrative code attached hereto, to become effective forty-five days, unless otherwise indicated, after filing with the Alabama Legislative Services Agency.

ADEM Admin. Code division 335-3 – Air Pollution Control Program

IN WITNESS WHEREOF, we have affixed our signatures below on this 9th day of August, 2024.

APPROVED:

Mary J. Merritt, Commissioner

H. Lanier Brown, II, Commissioner

J. Patrick Tucker, Commissioner

Kevin McKinstry, Commissioner

John (Jay) H. Masingill, III, Commissioner

Ruby L. Perry, Commissioner

A. Frank McFadden, Commissioner

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DISAPPROVED:

Mary J. Merritt, Commissioner

H. Lanier Brown, II, Commissioner

J. Patrick Tucker, Commissioner

Kevin McKinstry, Commissioner

John (Jay) H. Masingill, III, Commissioner

Ruby L. Perry, Commissioner

A. Frank McFadden, Commissioner

ABSTAINED:

Mary J. Merritt, Commissioner

H. Lanier Brown, II, Commissioner

J. Patrick Tucker, Commissioner

Kevin McKinstry, Commissioner

John (Jay) H. Masingill, III, Commissioner

Ruby L. Perry, Commissioner

A. Frank McFadden, Commissioner

**This is to certify that this Resolution is a true and accurate account of the actions taken by the Environmental Management Commission on this 9th day of August 2024.**

**A. Frank McFadden, Chair**
**Environmental Management Commission**
**Certified this 9th day of August 2024**

**ATTACHMENT A**

**335-3-10-.01 General.**

(1) The Environmental Protection Agency Regulations, and the Appendices applicable thereto, governing Standards of Performance for New Stationary Sources (40 CFR 60 and Appendices) designated in rules 335-3-10-.02 and -.03 are incorporated by reference as they exist in 40 CFR 60 (July 1, 2023), and 88 FR 58442 [8/25/2023; addition of Subpart AAb and amendments to Subparts A, AA and AAa], 89 FR 11198 [2/24/2024; amendments to Subparts AA,AAa and AAb ]~~1~~, as amended by the word or phrase substitutions given in rule 335-3-10-.04. References for specific documents containing the complete text of subject regulations are given in Appendix C to these Regulations. Authorities which are not delegable to the state are also listed in Appendix C.

**[NOTE: The standards pertaining to the Consolidated Federal Air Rule are located in Chapter 335-3-11A.]**

(a) The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

(2) The emission standards in this Chapter shall supercede the emission standards in Chapters 335-3-3, -4, -5, -6, -7, and -8 if both of the following criteria are met:

(a) the source category is subject to the regulations in this Chapter for the specific pollutants to which an emission standard under this Chapter applies, and

(b) the emission standard under Chapters 335-3-3, -4, -5, -6, -7, and -8 is more stringent than the emission standard in this Chapter for the specific pollutants regulated.

(3) Definitions. For purposes of this Chapter, the definitions listed in 40 CFR §60.2 will apply.

**Author:** Department of Environmental Management

**Statutory Authority:** Code of Ala. 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8, 41-22-9.

**History:** Effective Date: May 25, 1976. **Amended:** Effective Date: February 13, 1985; June 9,1987; June 16, 1988; September 2, 1989; November 1, 1990; March 28, 1991; July 31, 1991; October 24, 1991. **Amended:** November 23, 1993; effective December 28, 1993. **Amended:** Filed March 23, 1995; effective April 27, 1995. **Amended:** Filed October 17, 1996; effective November 21, 1996. **Amended:** Filed August 21, 1997; effective September 25, 1997. **Amended:** Filed February 20, 1998; effective March 27, 1998. **Amended:** Filed June 10, 1999; effective July 15, 1999. **Amended:** Filed December 9, 1999; effective January 13, 2000. **Amended:** Filed August 3, 2000; effective September 7, 2000. **Amended:** Filed February 7, 2002; effective March 14, 2002. **Amended:** Filed August 29, 2002; effective October 3, 2002. **Amended:** Filed February 27, 2003; effective April 3, 2003. **Amended:** Filed August 28, 2003; effective October 2, 2003. **Amended:** Filed February 15, 2005;

effective March 22, 2005. **Amended:** Filed November 7, 2005; effective December 12, 2005. **Amended:** Filed June 6, 2006; effective July 11, 2006. **Amended:** Filed February 27, 2007; effective April 3, 2007. **Amended:** Filed December 18, 2008; effective January 22, 2008. **Amended:** Filed July 1, 2008; effective August 5, 2008. **Amended:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Filed February 23, 2010; effective March 30, 2010. **Amended:** Filed April 18, 2011; effective May 23, 2011. **Amended:** Filed April 24, 2012; effective May 29, 2012. **Amended:** Filed December 18, 2012; effective January 22, 2013. **Amended:** Filed April 23, 2013; effective May 28, 2013. **Amended:** Filed August 20, 2013; effective September 24, 2013. **Amended:** Filed October 20, 2015; effective November 24, 2015. **Amended:** Filed April 25, 2017; effective June 9, 2017. **Amended:** Filed August 21, 2018; effective October 5, 2018. **Amended:** Published February 28, 2020; effective April 13, 2020. **Amended:** Published October 29, 2021; effective December 13, 2021. **Amended:** Published December 29, 2023; effective February 12, 2024. **Amended:** Published _____; effective _____.

**335-3-10-.02 Designated Standards Of Performance.**

(1) Subpart A - General Provisions.

(2) Subpart D - Fossil Fuel-Fired Steam Generators for which construction is commenced after August 17, 1971.

(a) Subpart Da - Electric Utility Steam Generating Units for which construction is commenced after September 18, 1978.

(b) Subpart Db - Industrial-Commercial-Institutional Steam Generating Units.

(c) Subpart Dc - Small Industrial-Commercial-Institutional Steam Generating Units.

(3) Subpart E - Incinerators.

(a) Subpart Ea - Municipal Waste Combustors for which construction is commenced after December 20, 1989 and on or before September 20, 1994.

(b) Subpart Eb - Municipal Waste Combustors for which construction is commenced after September 20, 1994.

(c) Subpart Ec - Standards of Performance for Hospital/ Medical/Infectious Waste Incinerators for which construction is commenced after June 20, 1996.

(4) Subpart F - Portland Cement Plants.

(5) Subpart G - Nitric Acid Plants.

(a) Subpart Ga - Nitric Acid Plants for Which Construction, Reconstruction, or Modification Commenced After October 14, 2011.

(6) Subpart H - Sulfuric Acid Plants.

(7) Subpart I - Hot Mix Asphalt Facilities.

(8) Subpart J - Petroleum Refineries.

(a) Subpart Ja - Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After May 14, 2007.

(9) Subpart K - Storage Vessels for Petroleum Liquids constructed after June 11, 1973 and prior to May 19, 1978.

(a) Subpart Ka - Storage Vessels for Petroleum Liquids constructed after May 18, 1978.

(b) Subpart Kb - Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 12, 1984.

(10) Reserved.

(11) Reserved.

(12) Subpart L - Secondary Lead Smelters.

(13) Subpart M - Secondary Brass and Bronze Ingot Production Plants.

(14) Subpart N - Primary Emissions from Basic Oxygen Process Furnaces for which construction is commenced after June 11, 1973.

(a) Subpart Na - Standards of Performance for Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for which construction is commenced after January 20, 1983.

(15) Subpart O - Sewage Treatment Plants.
(16) Subpart P - Primary Copper Smelters.
(17) Subpart Q - Primary Zinc Smelters.
(18) Subpart R - Primary Lead Smelters.
(19) Subpart S - Primary Aluminum Reduction Plants.
(20) Subpart T - Wet Process Phosphoric Acid Plants.
(21) Subpart U - Superphosphoric Acid Plants.
(22) Subpart V - Diammonium Phosphate Plants.
(23) Subpart W - Triple Superphosphate Plants.
(24) Subpart X - Granular Triple Superphosphate Storage Facilities.
(25) Subpart Y - Coal Preparation Plants.
(26) Subpart Z - Ferroalloy Production Facilities.
(27) Subpart AA - Steel Plants (Electric arc furnaces and dust-handling equipment).
(a) Subpart AAa - Steel Plants: Electric Arc Furnaces and Argon Oxygen-Decarburization Vessels.
(b) Subpart AAb - Standards of Performance for Steel Plants: Electric Arc furnaces and Argon-Oxygen Decarbonization Vessels Constructed After May 16, 2022.
(28) Subpart BB - Kraft Pulp Mills.
(a) Subpart BBa - Standards of Performance for Kraft Pulp Mill Affected Sources for Which Construction, Reconstruction, or Modification Commenced After May 23, 2013.
(29) Subpart CC - Standards of Performance for Glass Manufacturing Plants.
(30) Subpart DD - Grain Elevators.
(31) Subpart EE - Surface Coating of Metal Furniture.
(32) Subpart FF - Reserved.
(33) Subpart GG - Stationary Gas Turbines.
(34) Subpart HH - Lime Manufacturing Plants.
(35) Subpart II - Reserved.
(36) Subpart JJ - Reserved.
(37) Subpart KK - Lead-Acid Battery Manufacture.
(a) Subpart KKa - Lead Acid Battery Manufacturing Plants for Which Construction, Modification or Reconstruction Commenced After February 23, 2022.
(38) Subpart LL - Metallic Mineral Processing Plants.
(39) Subpart MM - Automobile and Light-Duty Truck Surface Coating Operations.
(a) Subpart MMa - Automobile and Light Duty Truck Surface Coating Operations for which Construction, Modification or Reconstruction Commenced After May 18, 2022.
(40) Subpart NN - Phosphate Rock Plants.
(41) Subpart OO - Reserved.
(42) Subpart PP - Ammonium Sulfate Manufacturing.
(43) Subpart QQ - Graphic Arts Industry: Publication Rotogravure Printing.

(44) Subpart RR - Pressure Sensitive Tape and Label Surface Coating Industry.
(45) Subpart SS - Industrial Surface Coating - Large Appliances.
(46) Subpart TT - Metal Coil Surface Coating Operations.
(47) Subpart UU - Asphalt Processing and Asphalt Roofing Manufacture.
(48) Subpart VV - Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006.

(a) Subpart VVa - Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After November 7, 2006.

(49) Subpart WW - Beverage Can Surface Coating Industry.
(50) Subpart XX - Bulk Gasoline Terminals.
(51) Subpart YY - Reserved.
(52) Subpart ZZ - Reserved.
(53) Subpart AAA - Reserved.
(54) Subpart BBB - Rubber Tire Manufacturing Industry.
(55) Subpart CCC - Reserved.
(56) Subpart DDD - Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry.
(57) Subpart EEE - Reserved.
(58) Subpart FFF - Flexible Vinyl and Urethane Coating and Printing.
(59) Subpart GGG - Subpart GGG - Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and on or Before November 7, 2006.

(a) Subpart GGGa - Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After November 7, 2006.

(60) Subpart HHH - Synthetic Fiber Production Facilities.
(61) Subpart III - VOC Emissions from SOCMI Air Oxidation Unit Processes.
(62) Subpart JJJ - Petroleum Dry Cleaners.
(63) Subpart KKK - Equipment Leaks of VOC from Onshore Natural Gas Processing Plants for which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011.
(64) Subpart LLL - Standards of Performance for Onshore Natural Gas Processing for which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011: SO2 Emissions.
(65) Subpart MMM - Reserved.
(66) Subpart NNN - VOC Emissions from SOCMI Distillation Operations.
(67) Subpart OOO - Nonmetallic Mineral Processing Plants.

(68) Subpart PPP - Wool Fiberglass Insulation Manufacturing Plants.
(69) Subpart QQQ - VOC Emissions from Petroleum Refinery Wastewater Systems.
(70) Subpart RRR - Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry Reactor Processes.
(71) Subpart SSS - Magnetic Tape Manufacturing Industry.
(72) Subpart TTT - Industrial Surface Coating; Plastic Parts for Business Machines.

(a) Subpart TTTa - Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines for Which Construction, Reconstruction, or Modification Commenced After June 21, 2022.

(73) Subpart UUU - Calciners and Dryers in Mineral Industries.
(74) Subpart VVV - Polymeric Coating of Supporting Substrates.
(75) Subpart WWW - Municipal Waste Landfills.
(76) Subpart XXX - Municipal Solid Waste Landfills that commenced contruction, reconstruction, or modification after July 17, 2014.
(77) Subpart YYY - Reserved.
(78) Subpart ZZZ - Reserved.
(79) Subpart AAAA - Small Municipal Waste Combustion Units for which construction is commenced after August 30, 1999 or for which modification or reconstruction is commenced After June 6, 2001.
(80) Subpart BBBB - Reserved.
(81) Subpart CCCC - Commercial and Industrial Solid Waste Incineration Units for which construction is commenced after June 4, 2010 or for which modification or reconstruction is commenced on or after August 7, 2013.
(82) Subpart DDDD - Reserved.
(83) Subpart EEEE - Reserved.
(84) Subpart FFFF - Reserved.
(85) Subpart GGGG - Reserved.
(86) Subpart HHHH - Reserved.
(87) Subpart IIII - Stationary Compression Ignition Internal Combustion Engines.
(88) Subpart JJJJ - Stationary Spark Ignition Internal Combustion Engines.
(89) Subpart KKKK - Stationary Combustion Turbines.
(90) Subpart LLLL - New Sewage Sludge Incineration Units.
(91) Subpart OOOO - Crude Oil and Natural Gas Production, Transmission and Distribution.

(a) Subpart OOOOa - Crude Oil and Natural Gas Facilities for which construction, modification or reconstruction commenced after September 18, 2015.

(92) Subpart PPPP - Reserved.
(93) Subpart QQQQ - Reserved.

(94) Subpart RRRR - Reserved.
(95) Subpart SSSS - Reserved.
(96) Subpart TTTT - Greenhouse Gas Emissions from Electric Generating Units.
**Author:** Department of Environmental Management
**Statutory Authority:** Code of Ala. 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8, 41-22-9.
**History:** Effective May 25, 1976. **Amended:** Effective June 23, 1981; February 13, 1985; April 15, 1987; June 16, 1988; September 21, 1989; November 1, 1990; March 28, 1991; July 31, 1991; October 24, 1991. **Amended:** Filed November 23, 1993; effective December 28, 1993. **Amended:** Filed March 23, 1995; effective April 27, 1995. **Amended:** Filed October 17, 1996; effective November 21, 1996. **Amended:** Filed February 20, 1998; effective March 27, 1998. **Amended:** Filed June 10, 1999; effective July 15, 1999. **Amended:** Filed December 9, 1999; effective January 13, 2000. Adopted by Reference: Filed August 3, 2000; effective September 7, 2000. **Amended:** Filed February 7, 2002; effective March 14, 2002. **Amended:** Filed August 29, 2002; effective October 3, 2002. **Amended:** Filed February 27, 2003; effective April 3, 2003. **Amended:** Filed August 28, 2003; effective October 2, 2003. **Amended:** Filed February 15, 2005; effective March 22, 2005. **Amended:** Filed November 7, 2005; effective December 12, 2005. **Amended:** Filed June 6, 2006; effective July 11, 2006. **Amended:** Filed October 10, 2006; effective November 14, 2006. **Amended:** Filed February 27, 2007; effective April 3, 2007. **Amended:** Filed December 18, 2008; effective January 22, 2008. **Amended:** Filed July 1, 2008; effective August 5, 2008. **Amended:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Filed February 23, 2010; effective March 30, 2010. **Amended:** Filed April 18, 2011; effective May 23, 2011. **Amended:** Filed April 24, 2012; effective May 29, 2012. **Amended:** Filed December 18, 2012; effective January 22, 2013. **Amended:** Filed April 23, 2013; effective May 28, 2013. **Amended:** Filed August 20, 2013; effective September 24, 2013. **Amended:** Filed October 20, 2015; effective November 24, 2015. **Amended:** Filed April 25, 2017; effective June 9, 2017. **Amended:** Published February 28, 2020; effective April 13, 2020. **Amended:** Published October 29, 2021; effective December 13, 2021. **Amended:** Published December 29, 2023; effective February 12, 2024. **Amended:** Published ; effective .

**335-3-11-.01 General.**

(1) The Environmental Protection Agency Regulations, and the Appendices applicable thereto, governing Hazardous Air Pollutants, 40 CFR, Part 61 and Appendices, designated in rules 335-3-11-.02 and 335-3-11-.03 and 40 CFR Part 63, and Appendices designated in rules 335-3-11-.06 and 335-3-11-.07 are incorporated by reference as they exist in 40 CFR 61 (2021), and 40 CFR 63 (July 1, 2023), and 89 FR 16408 [03/06/2024; amendments to Subpart A and RRRRR]~~1)~~, as amended by the word or phrase substitutions given in rule 335-3-11-.04. References for specific documents containing the complete text of subject regulations are given in Appendix C to these Regulations. Authorities which are not delegable to the state are also listed in Appendix C.

**[NOTE: The standards pertaining to the Consolidated Federal Air Rule are located in Chapter 335-3-11A.]**

(a) The materials incorporated by reference are available for purchase and inspection at the Department's offices at 1400 Coliseum Boulevard, Montgomery, Alabama 36110.

(2) In the event of any conflict between the regulations contained in this Chapter and regulations contained in other Chapters, the more stringent regulations will take precedence.

(3) Definitions. For purposes of this Chapter, the definitions listed in 40 CFR 61.02, Subpart A will apply in Rules 335-3-11-.02 and 335-3-11-.03 and the definitions listed in 40 CFR 63.2, Subpart A will apply in Rules 335-3-11-.06 and 335-3-11-.07.

**Author:** Department of Environmental Management

**Statutory Authority:** Code of Ala. 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8, 41-22-9.

**History:** Effective May 25, 1976. **Amended:** Effective February 13, 1985; June 9, 1987; June 16, 1988; November 1, 1990; March 28, 1991; July 31, 1991; September 19, 1991. **Amended:** Filed November 23, 1993; effective December 28, 1993. **Amended:** Filed October 19, 1995; effective November 23, 1995. **Amended:** Filed October 17, 1996; effective November 21, 1996. **Amended:** Filed August 21, 1997; effective September 25, 1997. **Amended:** Filed February 20, 1998; effective March 27, 1998. **Amended:** Filed October 15, 1998; effective November 19, 1998. **Amended:** Filed June 10, 1999; effective July 15, 1999. **Amended:** Filed December 9, 1999; effective January 13, 2000. **Amended:** Filed August 3, 2000; effective September 7, 2000. **Amended:** Filed February 7, 2002; effective March 14, 2002. **Amended:** Filed August 29, 2002; effective October 3, 2002. **Amended:** Filed February 27, 2003; effective April 3, 2003. **Amended:** Filed August 28, 2003; effective October 2, 2003. **Amended:** Filed February 15, 2005; effective March 22, 2005. **Amended:** Filed November 7, 2005; effective December 12, 2005. **Amended:** Filed June 6, 2006; effective July 11, 2006. **Amended:** Filed February 27, 2007; effective April 3, 2007. **Amended:** Filed December 18,

2008; effective January 22, 2008. **Amended:** Filed July 1, 2008; effective August 5, 2008. **Amended:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Filed February 23, 2010; effective March 30, 2010. **Amended:** Filed April 18, 2011; effective May 23, 2011. **Amended:** Filed April 24, 2012; effective May 29, 2012. **Amended:** Filed December 18, 2012; effective January 22, 2013. **Amended:** Filed April 13, 2013; effective May 28, 2013. **Amended:** Filed August 20, 2013; effective September 24, 2013. **Amended:** Filed October 20, 2015; effective November 24, 2015. **Amended:** Filed April 25, 2017; effective June 9, 2017. **Amended:** Filed August 21, 2018; effective October 5, 2018. **Amended:** Published February 28, 2020; effective April 13, 2020. **Amended:** Published October 29, 2021; effective December 13, 2021. **Amended:** Published December 29, 2023; effective February 12, 2024. **Amended:** Published ; effective .

**335-3-11-.06 National Emission Standards For Hazardous Air Pollutants For Source Categories.**

(1) Subpart A - General Provisions.
(2) Subpart B - Requirements for Control Technology Determinations for Major Sources in Accordance With Clean Air Act Sections, Sections 112(g) and 112(j).
**[NOTE: The requirements for implementation of §112(g) are found in Rule 335-3-14-.06]**
(3) Subpart D - Regulations Governing Compliance Extensions for Early Reductions of Hazardous Air Pollutants.
(4) Reserved.
(5) Subpart F - National Emission Standards for Hazardous Air Pollutants From Synthetic Organic Chemical Manufacturing Industry.
(6) Subpart G - National Emission Standards for Organic Hazardous Air Pollutants From Synthetic Organic Chemical Manufacturing Industry Process Vents, Storage Vessels, Transfer Operations, and Wastewater.
(7) Subpart H - National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.
(8) Subpart I - National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks.
(9) Reserved.
(10) Reserved.
(11) Subpart L - National Emission Standards for Coke Oven Batteries.
(12) Subpart M - National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities.
(13) Subpart N - National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.
(14) Subpart O - Ethylene Oxide Emissions Standards for Sterilization Facilities.
(15) Reserved.
(16) Subpart Q - National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers.
(17) Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations).
(18) Subpart S - National Emission Standards for Hazardous Air Pollutants for Pulp and Paper Production.
(19) Subpart T - National Emission Standards for Halogenated Solvent Cleaning.
(20) Subpart U - National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins.
(21) Reserved.

(22) Subpart W - National Emission Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production.
(23) Subpart X - National Emission Standards from Secondary Lead Smelting.
(24) Subpart Y - National Emission Standards for Marine Tank Vessel Loading Operations [with the exceptions of those subsections referencing the Valdez Marine Terminal (VMT) in Alaska].
(25) Reserved.
(26) Subpart AA - National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants.
(27) Subpart BB - National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizers Production Plants.
(28) Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries.
(29) Subpart DD - National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.
(30) Subpart EE - National Emission Standards for Magnetic Tape Manufacturing Operations.
(31) Reserved.
(32) Subpart GG - National Emission Standards for Aerospace Manufacturing and Rework Facilities.
(33) Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities.
(34) Subpart II - National Emission Standards for Shipbuilding and Ship Repair (Surface Coating) Operations.
(35) Subpart JJ - National Emission Standards for Wood Furniture Manufacturing Operations.
(36) Subpart KK - National Emission Standards for the Printing and Publishing Industry.
(37) Reserved.
(38) Subpart MM - National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills.
(39) Reserved.
(40) Subpart OO - National Emission Standards for Tanks - Level 1.
(41) Subpart PP - National Emission Standards for Containers.
(42) Subpart QQ - National Emission Standards for Surface Impoundments.
(43) Subpart RR - National Emission Standards for Individual Drain Systems.
(44) Subpart SS - National Emission Standards Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process.
(45) Subpart TT - National Emission Standards for Equipment Leaks - Control Level 1.

(46) Subpart UU - National Emission Standards for Equipment Leaks - Control Level 2 Standards.
(47) Subpart VV National Emission Standards for Oil-Water Separators and Organic-Water Separators.
(48) Subpart WW - National Emission Standards for Storage Vessels (Tanks) - Control Level 2.
(49) Subpart XX - National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations.
(50) Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards.
(51) Reserved.
(52) Reserved.
(53) Reserved.
(54) Subpart CCC - National Emission Standards for Hazardous Air Pollutants for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants.
(55) Subpart DDD - National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production.
(56) Subpart EEE - National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors.
(57) Reserved.
(58) Subpart GGG - National Emission Standards for Hazardous Air Pollutants for Source Categories: Pharmaceuticals Production.
(59) Subpart HHH - National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities.
(60) Subpart III - National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production.
(61) Subpart JJJ - National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins.
(62) Reserved.
(63) Subpart LLL - National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry.
(64) Subpart MMM - National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production.
(65) Subpart NNN - National Emission Standards for Hazardous Air Pollutants for Wool Fiberglass Manufacturing.
(66) Subpart OOO - National Emission Standards for Hazardous Air Pollutants for Amino/Phenolic Resins Production.
(67) Subpart PPP - National Emission Standards for Hazardous Air Pollutants for Polyether Polyols Production.
(68) Reserved.
(69) Subpart RRR - National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production.
(70) Reserved.
(71) Reserved.

(72) Subpart UUU - National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units.
(73) Subpart VVV - National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works.
(74) Reserved.
(75) Subpart XXX - National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese.
(76) Reserved.
(77) Reserved.
(78) Subpart AAAA -National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills.
(79) Reserved.
(80) Subpart CCCC - National Emission Standards for Hazardous Air Pollutants: Nutritional Yeast.
(81) Subpart DDDD - National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products.
(82) Subpart EEEE - National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline).
(83) Subpart FFFF - National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.
(84) Subpart GGGG - National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production.
(85) Subpart HHHH - National Emission Standards for Hazardous Air Pollutants for Wet-Formed Fiberglass Mat Production.
(86) Subpart IIII - National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks.
(87) Subpart JJJJ - National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating.
(88) Subpart KKKK - National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans.
(89) Reserved.
(90) Subpart MMMM - National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products.
(91) Subpart NNNN - National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances.
(92) Subpart OOOO - National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles.
(93) Subpart PPPP - National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products.
(94) Subpart QQQQ - National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products.
(95) Subpart RRRR - National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture.

(96) Subpart SSSS - National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil.
(97) Reserved.
(98) Reserved.
(99) Subpart VVVV - National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing.
(100) Subpart WWWW - National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production.
(101) Subpart XXXX - National Emission Standards for Hazardous Air Pollutants: Rubber Tire Manufacturing.
(102) Subpart YYYY - National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines.
(103) Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (major source provisions only).
(104) Subpart AAAAA - National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants.
(105) Subpart BBBBB - National Emission Standards for Hazardous Air Pollutants for Semiconductor Manufacturing.
(106) Subpart CCCCC - National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks.
(107) Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.
(108) Subpart EEEEE - National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries.
(109) Subpart FFFFF - National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities.
(110) Subpart GGGGG - National Emission Standards for Hazardous Air Pollutants: Site Remediation.
(111) Subpart HHHHH - National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing.
(112) Subpart IIIII - National Emission Standards for Hazardous Air Pollutants: Mercury Emissions From Mercury Cell Chlor-Alkali Plants.
(113) Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing.
(114) Subpart KKKKK - National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing.
(115) Subpart LLLLL - National Emission Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing.
(116) Reserved.
(117) Subpart NNNNN - National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production.
(118) Reserved.

(119) Subpart PPPPP - National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Standards.
(120) Subpart QQQQQ - National Emission Standards for Hazardous Air Pollutants for Friction Materials Manufacturing Facilities
(121) Subpart RRRRR - National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing.
(122) Reserved.
(123) Subpart TTTTT - National Emission Standards for Hazardous Air Pollutants for Primary Magnesium Refining
(124) Subpart UUUUU- National Emission Standards for Hazardous Air Pollutants for Coal- and Oil-Fired Electric Utility Steam Generating Units.
(125) Reserved.
(126) Reserved.
(127) Reserved.
(128) Subpart YYYYY- National Emission Standards for Hazardous Air Pollutants for Electric arc Furnace Steelmaking Facilities Area Sources.
(129) Subpart ZZZZZ - National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources.
(130) Reserved.
(131) Reserved.
(132) Reserved.
(133) Subpart DDDDDD - National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production Area Sources.
(134) Subpart EEEEEE - National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting Area Sources.
(135) Subpart FFFFFF - National Emission Standards for Hazardous Air Pollutants for Secondary Copper Smelting Area Sources.
(136) Subpart GGGGGG - National Emission Standards for Hazardous Air Pollution for Primary Nonferrous Metals Area Sources - Zinc, Cadmium, and Beryllium.
(137) Reserved.
(138) Reserved.
(139) Reserved.
(140) Reserved.
(141) Subpart LLLLLL - National Emission Standards for Hazardous Air Pollutants for Acrylic and Modacrylic Fibers Production Area Sources.
(142) Subpart MMMMMM - National Emission Standards for Hazardous Air Pollutants for Carbon Black Production Area Sources.
(143) Reserved.
(144) Subpart OOOOOO - National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources.
(145) Subpart PPPPPP - National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources.

(146) Subpart QQQQQQ - National Emission Standards for Hazardous Air Pollutants for Wood Preserving Area Sources.
(147) Reserved.
(148) Reserved.
(149) Subpart TTTTTT- National Emission Standards for Hazardous Air Pollutants for Secondary nonferrous Metals Processing Area Sources.
(150) Reserved.
(151) Subpart VVVVVV - National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources.
(152) Reserved.
(153) Reserved.
(154) Subpart YYYYYY- National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production Facilities Area Sources.
(155) Subpart ZZZZZZ - National Emission Standards for Hazardous Air Pollutants for Aluminum, Copper, and Other Nonferrous Foundries Area Sources.
(156) Subpart AAAAAAA - National Emission Standards for Hazardous Air Pollutants for Asphalt Processing and Asphalt Roofing Manufacturing Area Sources.
(157) Reserved.
(158) Subpart CCCCCCC - National Emission Standards for Hazardous Air Pollutants for Paints and Allied Products Manufacturing Area Sources.
(159) Subpart DDDDDDD - National Emission Standards for Hazardous Air Pollutants for Prepared Feeds Manufacturing Area Sources.
(160) Reserved.
(161) Reserved.
(162) Reserved.
(163) Subpart HHHHHHH - National Emission Standards for Hazardous Air Pollutant Emissions for Polyvinyl Chloride and Copolymers Production.

**Author:** Richard E. Grusnick
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2005. **Amended:** Filed November 7, 2005; effective December 12, 2005. **Amended:** Filed June 6, 2006; effective July 11, 2006. **Amended:** Filed February 27, 2007; effective April 3, 2007. **Amended:** Filed December 18, 2008; effective January 22, 2008. **Amended:** Filed July 1, 2008; effective August 5, 2008. **Amended:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Filed February 23, 2010; effective March 30, 2010. **Amended:** Filed April 18, 2011; effective May 23, 2011. **Amended:** Filed April 24, 2012; effective May 29, 2012. **Amended:** Filed December 18, 2012; effective January 22, 2013. **Amended:** Filed April 13, 2013; effective May 28, 2013. **Amended:** Filed August 20, 2013; effective September 24, 2013. **Amended:** Filed October 20, 2015; effective November 24, 2015. **Amended:** Filed April 25, 2017; effective June 9, 2017. **Amended (no changes were made to the text or title):** Filed August 21, 2018; effective October 5, 2018. **Amended:** Published February 28, 2020; effective April 13, 2020. **Amended:** Published October 29, 2021; effective December 13, 2021. **Amended:** Published December 29, 2023; effective February 12, 2024. **Amended:** Published ; effective .

**335-3-19-.01 Definitions.**

(1) For the purposes of this Chapter and rules 335-3-10-.02(75) and 335-3-10-.02(76) only, the following words and phrases, unless a different meaning is plainly required by the content, shall have the following meanings.

(a) "*Active collection system*" means a gas collection system that uses gas mover equipment.

(b) "*Active landfill*" means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

(c) "*Closed area*" means a separately lined area of an MSW landfill in which solid waste is no longer being placed. If additional solid waste is placed in that area of the landfill, that landfill area is no longer closed. The area shall be separately lined to ensure that the landfill gas does not migrate between open and closed areas.

(d) "*Closed landfill*" means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under § 60.7(a)(4), 40 CFR. Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.

(e) "*Closed landfill subcategory*" means a closed landfill that has submitted a closure report as specified in rule 335-3-19-.03(6)~~(e)~~(f) on or before September 27, 2017.

(f) "*Closure*" means that point in time when a landfill becomes a closed landfill.

(g) "*Commercial solid waste*" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

(h) "*Controlled landfill*" means any landfill at which collection and control systems are required under this Chapter as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with rule 335-3-19-.03(1)(d)2.(i). "

(i) "*Corrective action analysis*" means a description of all reasonable interim and long-term measures, if any, that are available, and an explanation of why the selected corrective action(s) is/are the best alternative(s), including, but not limited to, considerations of cost effectiveness, technical feasibility, safety, and secondary impacts.

(j) "*Design capacity*" means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the Department, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the

design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site-specific density, which must be recalculated annually.

(k) "*Disposal facility*" means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

(l) "*Emission rate cutoff*" means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

(m) "*Enclosed combustor*" means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

(n) "*Flare*" means an open combustor without enclosure or shroud.

(o) "*Gas mover equipment*" means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

(p) "*Gust*" means the highest instantaneous wind speed that occurs over a 3-second running average.

(q) "*Household waste*" means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). Household waste does not include fully segregated yard waste. Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities. Household waste does not include construction, renovation, or demolition wastes, even if originating from a household.

(r) "*Industrial solid waste*" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation

equipment; and water treatment. This term does not include fly ash waste, bottom ash waste, boiler slag waste, or flue gas emission control waste which result from the combustion of coal or other fossil fuels at electric or steam generating plants. Additionally, this term does not include mining waste or oil and gas wastes, or small quantity generator waste as defined in ADEM Admin. Code r. 335-14-2-.01(5). Uncontaminated concrete, soil, brick, rock, and similar materials are excluded from this definition.

(s) "*Interior Well*" means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

(t) "*Landfill*" means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under ADEM Admin. Code r. 335-13-1-.03.

(u) "*Lateral expansion*" means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

(v) "*Leachate recirculation*" means the practice of taking the leachate collected from the landfill and reapplying it to the landfill by any of one of a variety of methods, including pre-wetting of the waste, direct discharge into the working face, spraying, infiltration ponds, vertical injection wells, horizontal gravity distribution systems, and pressure distribution systems.

(w) "*Modification*" means an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the lateral or vertical expansion.

(x) "*Municipal solid waste landfill*" or "*MSW landfill*" means an entire disposal facility in a contiguous geographic space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (ADEM Admin. Code r. 335-13-1-.03) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

(y) "*Municipal solid waste landfill emissions*" or "*MSW landfill emissions*" means gas generated by the decomposition

of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.
(z) "*NMOC*" means nonmethane organic compounds, as measured according to the provisions of rule 335-3-19-.03(3).
(aa) "*Nondegradable waste*" means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.
(bb) "*Passive collection system*" means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.
(cc) "*Root cause analysis*" means an assessment conducted through a process of investigation to determine the primary cause, and any other contributing causes, of positive pressure at a wellhead.
(dd) "*Sludge*" means any nonhazardous solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.
(ee) "*Solid waste*" means any garbage or rubbish, construction/demolition debris, ash, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities or materials intended for or capable of recycling, but which have not been diverted or removed from the solid waste stream. The term "solid waste" does not include recovered material, solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to National Pollutant Discharge permits under the Federal Water Pollution Control Act 33 U.S.C. 1342, as amended, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.). Also excluded from this definition are wastes from silvicultural operations, land application of crop residues, animal residues, animal manure and ash resulting exclusively from the combustion of fossil fuels or wood during normal agricultural operations or mining refuse as defined and regulated pursuant to the Alabama Mining Act.
(ff) "*Sufficient density*" means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors, necessary to maintain emission and migration

control as determined by measures of performance set forth in this Chapter.

(gg) "*Sufficient extraction rate*" means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

(hh) "*Treated landfill gas*" means landfill gas processed in a treatment system as defined in this rule.

(ii) "*Treatment system*" means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

(jj) "*Untreated landfill gas*" means any landfill gas that is not treated landfill gas.

(kk) "Administrator" means the Administrator of the Environmental Protection Agency or his authorized representative.

**Author**: Ronald W. Gore

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**335-3-19-.02 General Provisions.**

(1) The provisions of this Chapter apply to each existing MSW landfill for which construction, reconstruction or modification was commenced on or before July 17, 2014. Physical or operational changes made to an existing MSW landfill solely to comply with this Chapter are not considered a modification or reconstruction and would not subject an existing MSW landfill to the requirements of Subpart XXX as incorporated by reference in rule 335-3-10-.02(76), [see §60.760 of Subpart XXX, 40 CFR].

(a) The requirements of this rule shall become effective upon final approval by EPA.

(2) Collection and control of MSW landfill emissions shall be required at each MSW landfill meeting the following four conditions:

(a) The landfill has accepted municipal solid waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition.

(b) The landfill has a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the design capacity report; and

(c) The landfill has a nonmethane organic compound emission rate greater than or equal to 34 megagrams per year or Tier 4 surface emissions monitoring shows a surface emission concentration of 500 parts per million methane or greater.

(d) The landfill in the closed landfill subcategory and has an NMOC emission rate greater than or equal to 50 megagrams per year or Tier 4 surface emissions monitoring shows a surface emission concentration of 500 parts per million methane or greater.

(3) For purposes of obtaining an operating permit under Chapter 335-3-16 of this Division, the owner or operator of a MSW landfill subject to this Chapter with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under Chapter 335-3-16, unless the landfill is otherwise subject to Chapter 335-3-16. For purposes of submitting a timely application for an operating permit, the owner or operator of a MSW landfill subject to this Chapter with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters on the effective date of EPA's approval of the state's program [December 7, 1998], and not otherwise subject to Chapter 335-3-16, becomes subject to the requirements of Chapter 335-3-16, 90 days after the effective date [March 7, 1999] of said program approval, even if the design capacity report is submitted earlier.

(4) When a MSW landfill subject to this Chapter is closed as defined in this rule, the owner or operator is no longer subject to the requirement to maintain an operating permit under Chapter 335-3-16 for the landfill if the landfill is not otherwise subject to the requirements of Chapter 335-3-16 and if either of the following conditions are met.

(a) The landfill was never subject to the requirement to install and operate a gas collection and control system under rule 335-3-19-.03; or

(b) The owner or operator meets the condition for control system removal specified in rule 335-3-19-.03(1)(e).

(5) When an MSW landfill subject to this rule is in the closed landfill subcategory, the owner or operator is not subject to the following reports of this rule, provided the owner or operator submitted these reports under the provisions of Subpart WWW as incorporated by reference in rule 335-3-10-.02(75); or under the provisions of this rule on or before July 17, 2014;

(a) Initial design capacity report specified in subparagraph 335-3-19-.03(6)(a) of this rule.

(b) Initial or subsequent NMOC emission rate report specified in subparagraph 335-3-19-.03(6)~~(b)~~(c) of this rule, provided that the most recent NMOC emission rate report indicated the NMOC emissions were below 50 Mg/yr.

(c) Collection and control system design plan specified in subparagraph 335-3-19-.03(6)~~(c)~~(d) of this rule.

(d) Closure report specified in subparagraph 335-3-19-.03(6) ~~(c)~~(f) of this rule.

(e) Equipment removal report specified in subparagraph 335-3-19-.03(6)~~(f)~~(g) of this rule.

(f) Initial annual report specified in subparagraph 335-3-19-.03(6)~~(g)~~(h) of this rule.

(g) initial performance test report in subparagraph 335-3-19-.03(6)~~(h)~~(i) of this rule.

**Author:** Ronald W. Gore

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**335-3-19-.03 Standards For Existing Municipal Solid Waste Landfills.**

(1) Standards for Air Emissions from Existing Municipal Solid Waste Landfills.

(a) *Collection system.* Each MSW landfill meeting the conditions in 335-3-19-.02(2) shall install a gas collection as specified in subparagraphs (a)1. through (a)3. of this paragraph.

1. *Collection system.* Install and start up a collection and control system that captures the gas generated within the landfill within 30 months after:

(i) The first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in subparagraph (6) ~~(c)~~ (d) 4. of this rule; or

(ii) The first annual NMOC emission rate report for a landfill in the closed landfill subcategory in which the NMOC emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 50 megagrams per year, as specified in subparagraph (6) ~~(c)~~ (d) 4. of this rule; or

(iii) The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in subparagraph ~~(6) (c)~~ (6) (d) 4.(iii) of this rule.

2. *Active.* An active collection system shall:

(i) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment.

(ii) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade.

(iii) Collect gas at a sufficient extraction rate.

(iv) Be designed to minimize off-site migration of subsurface gas.

3. *Passive.* A passive collection system shall:

(i) Comply with the provisions specified in subparagraphs (1)(a)2.(i), (ii), and (iv) of this paragraph.

(ii) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR §258.40.

(b) *Control system.* Each MSW landfill meeting the conditions in rule 335-3-19-.02(2) shall control gas collected from within the landfill through the use of control devices meeting the following requirements, except as provided in 40 CFR §60.24.

1. A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR §60.18 except as noted in subparagraph (5)(d) of this rule; or

2. A control system designed and operated to reduce NMOC by 98 weight percent; or when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen or less. The reduction efficiency or concentration in parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in subparagraph (3)(d) of this rule. The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this Chapter.

(i) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.

(ii) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in paragraph (5) of this rule.

(iii) For the closed landfill subcategory, the initial or most recent performance test conducted to comply with 40 CFR 60 Subpart WWW of this; or any other requirement of this Chapter on or before July 17, 2014 is sufficient for compliance with this Chapter.

3. Route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated

landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas shall be controlled according to either subparagraph (b)1. or 2. of this paragraph.

4. All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of subparagraph (a) or (b) of this paragraph. For purposes of this Chapter, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of subparagraph (a) or (b) of this paragraph.

(c) *Design capacity*. Each owner or operator of an MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit an initial design capacity report to the Director as provided in subparagraph (6)(a) of this rule. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the initial design capacity report shall fulfill the requirements of this rule except as provided for in subparagraphs ~~(a)1. and (a)~~(c)1. and (c)2. below.

1. The owner or operator shall submit to the Director an amended design capacity report, as provided for in subparagraph (6)~~(a)3.~~(b) [Guidance: Note that if the design capacity increase is the result of a modification, as defined in rule 335-3-19-.01, that was commenced after July 17, 2014, the landfill will become subject to Rule 335-3-10-.02(76), 40 CFR 60, Subpart XXX. If the design capacity increase is the result of a change in operating practices, density, or some other change that is not a modification as the defined in rule 335-3-19-.01, the landfill remains subject to this Chapter.]

2. When an increase in the maximum design capacity of a landfill with an initial design capacity less than 2.5 million megagrams or 2.5 million cubic meters results in a revised maximum design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or operator shall comply with the provision of subparagraph (d) below.

(d) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either install a collection and control system as provided in subparagraphs (1)(a) and (1)(b)~~(a) and (b) of this paragraph comply with subparagraph (d)2.~~ of this paragraph or calculate an NMOC emission rate for the landfill using the procedures

specified in paragraph (3) of this rule. The NMOC emission rate shall be recalculated annually, except as provided in subparagraph (6) ~~(b)~~ (c) 3. of this rule. The owner or operator of an MSW landfill subject to this Chapter with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to major source operating permitting requirements in Chapter 335-3-16.

1. If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator shall:

(i) submit an annual NMOC emission report to the Director, except as provided for in subparagraph (6) ~~(b)~~ (c) 3. of this rule; and

(ii) recalculate the NMOC emission rate annually using the procedures specified in subparagraph (3) (a) of this rule until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, or the landfill is closed.

(I) If the NMOC emission rate, upon initial calculation or annual recalculation required in subparagraph ~~-~~ (d) 1. (ii) above, is equal to or greater than 34 megagrams per year, the owner or operator shall install a collection and control system in compliance with subparagraph (b) 2. ~~below~~ of this paragraph; calculate NMOC emission using the next higher tier in subparagraph (3) of this rule; or conduct a surface emission monitoring demonstration using the procedures specified in subparagraph (3) (a) 6. of this rule.

(II) If the landfill is permanently closed, a closure report shall be submitted to the Director as provided for in subparagraph (6) ~~(e)~~ (f) of this rule, except for exemption allowed under 335-3-19-.02(5)(d).

(III) For the closed landfill subcategory, if the most recently calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall either: Submit a gas collection and control system design plan as specified in subparagraph (6) ~~(c)~~ (d) of this rule, except for exemptions allowed under rule 335-3-19-.02(5)(c), and install a collection and control system as provided in subparagraphs (a) and (b) of this paragraph; calculate NMOC emissions using the next higher tier in paragraph (3) of this rule; or conduct a surface emission monitoring demonstration using the procedures specified in subparagraph (3) (a) 6. of this rule.

2. If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator shall either:

(i) submit a collection and control system design plan prepared by a professional engineer to the Director within 1 year as specified in subparagraph (6) ~~(c)~~ (d) of this rule, except for exemptions allowed under rule 335-3-19-.02(5)(c);

(ii) calculate NMOC emissions using a higher tier in paragraph (3) of this rule; or

(iii) conduct a surface emission monitoring demonstration using the procedures specified in subparagraph (3)(a)6. of this rule.

3. For the closed landfill subcategory, if the calculated NMOC emission rate is equal to or greater than 50 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator shall either:

(i) Submit a collection and control system design plan as specified in subparagraph (6) ~~(c)~~ (d) of this rule, except for exemptions allowed under rule 335-3-19-.02(5)(c);

(ii) calculate NMOC emissions using a higher tier in paragraph (3) of this rule; or

(iii) conduct a surface emission monitoring demonstration using the procedures specified in subparagraph (3)(a)6. of this rule.

(e) *Removal criteria*. The collection and control system may be capped, removed, or decommissioned provided that the following criteria are met:

1. The landfill is a closed landfill as defined in rule 335-3-19-.01(d). A closure report shall be submitted to the Director as provided in subparagraph (6) ~~(e)~~ (f) of this rule;

2. The collection and control system shall have been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flow.

3. Following the procedures specified in subparagraph (3)(b) of this rule, the calculated NMOC gas produced by the landfill shall be less than 34 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

4. For the closed landfill subcategory (as defined in rule 335-3-19-.01(e)), following the procedures specified in subparagraph (3)(b) of this rule, the calculated NMOC emission rate at the landfill is less than 50 megagrams per year on three successive test

dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

(2) Operational Standards for Collection and Control Systems. For a MSW landfill with a gas collection and control system used to comply with subparagraphs (1)(a) and (b) of this rule, the owner or operator of ~~an~~a MSW landfill shall operate the gas collection and control system in accordance with the operational standards in this paragraph (as well as the provisions in paragraphs (4) and (5) of this rule, or the operational standards in 40 CFR §63.1958, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78) (as well as the provisions in 40 CFR §§63.1960 and 63.1961, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78)), or both as alternative means of compliance. Once the owner or operator begins to comply with the provisions of 40 CFR §63.1958, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78), the owner or operator shall continue to operate the collection and control device according to those provisions and cannot return to the provisions of this paragraph. Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of subparagraph (1)(a) and (b) of this rule shall:

(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

1. 5 years or more if active; or
2. 2 years or more if closed or at final grade;

(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:

1. a fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in subparagraph (6)~~(g)~~(h) of this rule;
2. use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;
3. a decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Director as specified in subparagraph 335-3-19-.03(6)~~(c)~~(d) of this rule;

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55oC (131oF). The owner or operator may establish a higher operating temperature value at a particular well. A higher operating value demonstration shall be submitted to the Director for approval and shall include supporting data demonstrating that the elevated parameter neither causes fires nor

significantly inhibits anaerobic decomposition by killing methanogens. The demonstration shall satisfy both criteria in order to be approved (i.e., neither causing fires nor killing methanogens is acceptable).

(d) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in subparagraph (4)(d) of this rule. The owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Thus the owner or operator shall monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required. The owner or operator shall establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with subparagraph (1)(b) of this rule. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour of the collection or control system not operating.

(f) Operate the control system at all times when the collected gas is routed to the system.

(g) If monitoring demonstrates that the operational requirements in subparagraphs (b), (c), or (d) of this paragraph are not met, corrective action shall be taken as specified in subparagraphs (4)(a)3. and 5. or subparagraph (4)(c) of this rule. If corrective actions are taken as specified in paragraph (4) of this rule, the monitored exceedance is not a violation of the operational requirements in this paragraph.

(3) Test Methods and Procedures.

(a) *NMOC Emission Rate.* The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in subparagraph (a)1. of this paragraph or the

equation provided in subparagraph (a)1.(ii) of this paragraph. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in subparagraph (a)1. of this paragraph, for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in subparagraph (a)1.(ii) of this paragraph, for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for Lo, and 4,000 parts per million by volume as hexane for the CNMOC. For landfills located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the k value to be used is 0.02 per year.

1. The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2kL_oM_i\left(e^{-kt_i}\right)\left(C_{NMOC}\right)\left(3.6x10^{-9}\right)$$

where,

$M_{NMOC}$ = Total NMOC emission rate from the landfill, megagrams per year

k = methane generation rate constant, year-1

$L_o$ = methane generation potential, cubic meters per megagram solid waste

$M_i$ = mass of solid waste in the ith section, megagrams

$t_i$ = age of the ith section, years

$C_{NMOC}$ = concentration of NMOC, parts per million by volume as hexane

3.6 x $10^{-9}$ = conversion factor

(i) The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for Mi if the documentation of the nature and amount of such wastes is maintained.

(ii) The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2L_oR\left(e^{-ke} - e^{-kt}\right)\left(C_{NMOC}\right)\left(3.6x10^{-9}\right)$$

where,

$M_{NMOC}$ = mass emission rate of NMOC, megagrams per year Lo = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year-1

t = age of landfill, years

$C_{NMOC}$ = concentration of NMOC, parts per million by volume as hexane

c = time since closure, years. For active landfill c = 0 and $e^{-kc}$ = 1

$3.6 \times 10^{-9}$ = conversion factor

(iii) The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating a value for R, if the documentation of the nature and amount of such wastes is maintained.

2. Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC emission rate calculated in subparagraph (a) of this paragraph is less than 34 megagrams per year, then the landfill owner or operator shall submit an NMOC emission rate report as provided in subparagraph (6)~~(b)1.~~(c) of this rule, and shall recalculate the NMOC mass emission rate annually as required under subparagraph (1)(d)1. of this rule.

(ii) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, then the landfill owner or operator shall either:

(I) Submit a gas collection and control system design plan within 1 year as specified in subparagraph (6)~~(c)~~(d) of this rule, and install and operate a gas collection and control system within 30 months according to subparagraphs (1)(a) and~~—~~ (b) of this rule;

(II) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures provided in subparagraph (3)(a)3. of this paragraph; or

(III) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures provided in subparagraph (3)(a)4. of this paragraph.

3. Tier 2. The landfill owner or operator shall determine the site-specific NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The probes should be evenly

distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of Appendix A of 40 CFR Part 60. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes shall be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements shall be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If more than the required number of samples is taken, all samples shall be used in the analysis. The landfill owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from CNMOC as carbon to CNMOC as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe shall be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples shall be collected from the header pipe. [**NOTE:** Test Methods found in Appendix A of 40 CFR part 60 are incorporated by reference in ADEM Admin. Code r. 335-3-10-.03.]

(i) Within 60 days after the date of determining the NMOC concentration and corresponding NMOC emission rate, the owner or operator shall submit the results according to subparagraph (6)~~(i)~~(j)2. of this rule.

(ii) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in subparagraph (3)(a)1. or (a)1.(ii) of this paragraph and using the average site-specific NMOC concentration from the collected samples instead of the default value in the equation provided in subparagraph (a) of this paragraph.

(iii) If the resulting NMOC mass emission rate is less than 34 megagrams per year, the owner or operator shall submit a periodic estimate of the

NMOC emissions in an NMOC emission rate report as provided in subparagraph (6)~~(b)1.~~(c) of this rule and shall recalculate the NMOC mass emission rate annually as required under subparagraphs (1)~~(a) and (b)~~(d) of this rule. The site-specific NMOC concentration shall be retested every 5 years using the methods specified in this paragraph.

(iv) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the owner or operator shall either:

(I) Submit a gas collection and control system design plan within 1 year as specified in subparagraph (6)~~(c)~~(d) of this rule, and install and operate a gas collection and control system within 30 months according to subparagraphs (1)(a) and~~-~~ (b) of this rule;

(II) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in subparagraph (3)(a)4. of this paragraph; or

(III) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in subparagraph (a)6. of this paragraph.

4. Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of Appendix A. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in subparagraph (a)1. or (a)1.(ii) of this paragraph and using a site-specific methane generation rate constant k, and the site-specific NMOC concentration as determined in subparagraph (a)3. of this paragraph instead of the default values provided in subparagraph (a) of this paragraph. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 34 megagrams per year.

(i) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site specific methane generation rate is equal to or greater than 34 megagrams per year, the owner or operator shall either~~site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with subparagraph (1)(b)2. of this Rule~~.

(I) Submit a gas collection and control system design plan within 1 year as specified in subparagraph (6)~~(c)~~ (d) of this rule, and install and operate a gas collection and control system within 30 months according to subparagraphs (1) (a) and~~—~~ (b) of this rule; or

(II) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in subparagraph (3)(a)6. of this paragraph.

(ii) If the NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator shall recalculate the NMOC mass emission rate annually using either equation in subparagraph (a)1. of this paragraph and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in subparagraph (6)~~(b)~~ (c) of this rule. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.

5. *Other methods*. The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in subparagraphs (a)3. and (a)4. of this paragraph if the method has been approved by the Administrator.

6. *Tier 4*. The landfill owner or operator shall demonstrate that surface methane emissions are below 500 parts per million. Surface emission monitoring shall be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill shall meet the criteria in subparagraph (a)6.(viii) of this paragraph.

(i) The owner or operator shall measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in subparagraph (4)(d) of this rule.

(ii) The background concentration shall be determined by moving the probe inlet upwind and

downwind at least 30 meters from the waste mass boundary of the landfill.

(iii) Surface emission monitoring shall be performed in accordance with section 8.3.1 of Method 21 of appendix A of 40 CFR Part 60, except that the probe inlet shall be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole.

(I) The owner or operator shall use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed shall also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier shall surround the SEM monitor, and shall be placed on the ground, to ensure wind turbulence is blocked. SEM cannot be conducted if average wind speed exceeds 25 miles per hour.

(II) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations shall also be monitored using a device meeting the specifications provided in subparagraph (4)(d) of this rule.

(iv) Each owner or operator seeking to comply with the Tier 4 provisions in subparagraph (a)6. of this paragraph shall maintain records of surface emission monitoring as provided in subparagraph(7)(g) of this rule, and submit a Tier 4 surface emissions report as provided in subparagraph (6)~~(c)~~(d)4.(iii) of this rule.

(v) If there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator shall submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to subparagraph (6)~~(c)~~(d) of this rule, and install and operate a gas collection and control system according to subparagraphs (1)(a) and (b) of this rule, within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate

equals or exceeds 34 megagrams per year based on Tier 2.

(vi) If after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator shall continue quarterly surface emission monitoring using the methods specified in this paragraph.

(vii) If after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator shall conduct annual surface emission monitoring using the methods specified in this paragraph.

(viii) If a landfill has installed and operates a collection and control system that is not required by this Chapter, then the collection and control system shall meet the following criteria:

(I) The gas collection and control system shall have operated for at least 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration.

(II) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system shall operate as it normally would to collect and control as much landfill gas as possible.

(b) After the installation and startup of a collection and control system in compliance with paragraph (4) of this rule, the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be capped, removed, or decommissioned as provided in subparagraph (1)(e) of this rule, using the following equation:

$$M_{NMOC} = 1.89x10^{-3}(Q_{LFG})(C_{NMOC})$$

where,

$M_{NMOC}$ = mass emission rate of NMOC, megagrams per year

$Q_{LFG}$ = flow rate of landfill gas, cubic meters per minute

$C_{NMOC}$ = NMOC concentration, parts per million by volume as hexane

1. The flow rate of landfill gas, QLFG, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated

according to the provisions of Section 10 of Method 2E of Appendix A.

2. The average NMOC concentration, CNMOC, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25 or 25C ~~or Method 18~~ of Appendix A~~. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42)~~. The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25 or 25C by six to convert from CNMOC as carbon to CNMOC as hexane.

3. The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the ~~Director~~Administrator.

(i) Within 60 days after the date of calculating the NMOC emission rate for purposes of determining when the system can be capped or removed, the owner or operator shall submit the results according to subparagraph (6)~~(i)~~(j)2. of this rule.

(ii) [Reserved]

(c) When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of this Chapter shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in rule 335-3-14-.04(2)(w) using AP-42 or other approved measurement procedures.

(d) For the performance test required in subparagraph (1)(b)1. of this rule, the net heating value of the combusted landfill gas as determined in 40 CFR §60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR §60.18(f)(4).

1. Within 60 days after the date of completing each performance test (as defined in 40 CFR § 60.8), the owner or operator shall submit the results of the performance tests required by paragraph (b) or (d) of this ~~section, including any associated fuel analyses, according to subparagraph (6)(i)~~paragraph, including any associated fuel analyses, according to subparagraph (6)(j)1. of this rule.

2. [Reserved].

(e) For the performance test required in subparagraph ~~(i)~~(1)(b)2. of this rule, Method 25 or 25C or Method 18 (Method 25C may be used at the inlet only) shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet NMOC concentration level, unless another method to demonstrate compliance has been approved by the ~~Director as provided by subparagraph (6)(c)~~Administrator as provided by subparagraph (6)(d)2. of this rule. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). Method 3, 3A, or 3C shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. Method 18 may be used in conjunction with e.g.Method 25A on a limited basis (compound specific, , methane) or Method 3C may be used to determine methane. The methane as carbon should be subtracted from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landfill owner or operator shall divide the NMOC concentration as carbon by 6 to convert the CNMOC as carbon to CNMOC as hexane. The following equation shall be used to calculate efficiency:

$$\textit{Control Efficiency} = (\mathrm{NMOC_{in}} - \mathrm{NMOC_{out}})/\mathrm{NMOC_{in}}$$

where,

$NMOC_{in}$ = mass of NMOC entering control device

$NMOC_{out}$ = mass of NMOC exiting control device

1. Within 60 days after the date of completing each performance test (as defined in 40 CFR § 60.8), the owner or operator shall submit the results of the performance tests, including any associated fuel analyses, according to subparagraph (6)~~(i)~~(j)1. of this rule.

2. [Reserved].

(4) Compliance Provisions: For ~~an~~a MSW landfill with a gas collection and control system used to comply with subparagraphs (1)(a) and (b) of this rule, the owner or operator shall operate the gas collection and control system in accordance with the compliance provisions in this section (as well as the provisions in paragraphs (2) and (5) of this rule, or the compliance provisions in 40 CFR §63.1960, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78) (as well as the provisions in 40 CFR §§63.1958 and 63.1961, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78)), or both as alternative means of compliance. For a MSW landfill with a gas collection and control system used to comply with the

provisions of subparagraphs (1)(a) and (b) of this rule, once the 40 CFR §63.1960, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78), the owner or operator shall continue to operate the collection and control device according to those provisions and cannot return to the provisions of this paragraph.

(a) Except as provided in subparagraph (6) ~~(c)2. of this rule, the specified methods in subparagraphs (a)1. through~~ (d)2. of this rule, the specified methods in subparagraphs (a)1. through (a)6. of this paragraph shall be used to determine whether the gas collection system is in compliance with subparagraph ~~-~~ (1)(b)2.(ii) of this rule.

1. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with subparagraph (1)(a)2.(i) of this rule, one of the following equations shall be used. The k and Lo kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site-specific values demonstrated to be appropriate and approved by the ~~Director. If k has been determined as specified in subparagraph~~ Administrator. If k has been determined as specified in subparagraph (3)(a)4. of this rule, the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(i) For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_o R\left(e^{-kc} - e^{-kt}\right)$$

where,

$Q_m$ = maximum expected gas generation flow rate, cubic meters per year

$L_o$ = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year-1

t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years

c = time since closure, years (for an active landfill c = 0 and e-kc = 1)

(ii) For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \sum_{i=1}^{n} 2kL_oM_i\left(e^{-kt_i}\right)$$

where,

$Q_m$ = maximum expected gas generation flow rate, cubic meters per year

k = methane generation rate constant, year-1

$L_o$ = methane generation potential, cubic meters per megagram solid waste

$M_i$ = mass of solid waste in the ith section, megagrams

$t_i$ = age of the ith section, years

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in subparagraphs (a)1.(i) and (ii) of this paragraph. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in subparagraphs (a)1.(i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

2. For the purposes of determining sufficient density of gas collectors for compliance with subparagraph (1)(a)2.(ii) of this rule., the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Director, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

3. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with subparagraph (1)(a)2.(iii) of this rule, the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under subparagraph (2)(b) of this rule. Any attempted corrective measure shall not cause exceedances of other operational or performance standards.

(i) If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the owner or operator shall conduct a root cause

analysis and correct the exceedance as soon as practicable, but not later than 60 days after positive pressure was first measured. The owner or operator shall keep records according to subparagraph (7)(e)3. of this rule.

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit) or positive pressure. The owner or operator shall submit the items listed in subparagraph (6)~~(g)~~(h)7. of this rule as part of the next annual report. The owner or operator shall keep records according to subparagraph (7)(e)4. of this rule.

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Director, according to subparagraph (6)~~(g)7. and (j)~~(h)7. and (k) of this rule. The owner or operator shall keep records according to subparagraph (7)(e)5. of this rule.

4. [Reserved].

5. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature as provided in subparagraph (2)(c) of this rule. If a well exceeds the operating parameter for temperature, action shall be initiated to correct the exceedance within 5 calendar days. Any attempted corrective measure shall not cause exceedances of other operational or performance standards.

(i) If a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) cannot be achieved within 15 calendar days of the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit), the owner or operator shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit) was first measured.

The owner or operator shall keep records according to subparagraph (7)(e)3. of this rule.

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator shall submit the items listed in subparagraph (6)~~(g)~~(h)7. of this rule, as part of the next annual report. The owner or operator shall keep records according to subparagraph (7)(e)4. of this rule.

(iii) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Director, according to subparagraphs (6)~~(g)7. and (j)~~(h)7. and (k) of this rule. The owner or operator shall keep records according to subparagraph (7)(e)5. of this rule.

6. An owner or operator seeking to demonstrate compliance with subparagraph (1)(a)2.(iv) of this rule through the use of a collection system not conforming to the specifications provided in paragraph (8) of this rule shall provide information satisfactory to the Director as specified in subparagraph (6)~~(c)~~(d)3. of this rule demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with subparagraph~~-~~ (2)(a) of this rule, each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in subparagraph (6)~~(c)~~(d) of this rule. Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

1. 5 years or more if active; or
2. 2 years or more if closed or at final grade.

(c) The following procedures shall be used for compliance with the surface methane operational standard as provided in subparagraph (2)(d) of this rule.

1. After installation and startup of the gas collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of

the collection area and along a pattern that traverses the landfill at no more than 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in subparagraph (d) of this paragraph.

2. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

3. Surface emission monitoring shall be performed in accordance with Section 8.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

4. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in subparagraphs (c)4.(i) through (v) of this paragraph below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of subparagraph (2)(d) of this rule.

(i) The location of each monitored exceedance shall be marked and the location and concentration recorded. For location, the owner or operator shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in subparagraph (c)4.(v) of this paragraph shall be taken, and no further monitoring of that location is required until the action specified in subparagraph (c)4.(v) has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than

500 ppm methane above background at the 10-day re-monitoring specified in subparagraph (c)4.(ii) or (iii) of this paragraph shall be re-monitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in subparagraph (c)4.(iii) or (v) of this paragraph shall be taken.

(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Director for approval.

5. The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(d) Each owner or operator seeking to comply with the provisions in subparagraph (c) of this paragraph shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

1. The portable analyzer shall meet the instrument specifications provided in Section 6 of Method 21 of Appendix A, except that "methane" shall replace all references to VOC.

2. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

3. To meet the performance evaluation requirements in Section 8.1 of Method 21 of Appendix A, the instrument evaluation procedures of Section 8.1 of Method 21 of Appendix A shall be used.

4. The calibration procedures provided in Section 8 and 10 of Method 21 of Appendix A shall be followed immediately before commencing a surface monitoring survey.

(e) The provisions of this paragraph apply at all times, including periods of startup, shutdown, or malfunction. During periods of startup, shutdown, and malfunction, the owner or operator shall comply with the work practice specified in subparagraph (2)(e) of this rule, in lieu of the compliance provisions in paragraph (4) of this rule.

(5) Monitoring of Operations: For ~~an~~a MSW landfill with a gas collection and control system used to comply with subparagraphs (1)(a) and (b) of this rule, the owner or operator shall operate the gas collection and control system in accordance with the monitoring provisions in this ~~section~~paragraph (as well as the provisions in paragraphs (2) and (4) of this rule, except as provided in subparagraph (6)(d)2., or the monitoring provisions in 40 CFR §63.1961, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78) (as well as the provisions in 40 CFR §§63.1958 and 63.1960, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78)), or both as alternative means of compliance. Once the owner or operator begins to comply with the provisions of 40 CFR §63.1961, as incorporated by reference under ADEM Admin. Code r. 335-3-11-.06(78), the owner or operator shall continue to operate the collection and control device according to those provisions and cannot return to the provisions of this paragraph. Except as provided in subparagraph (6)~~(c)~~(d)2. of this rule,

(a) Each owner or operator seeking to comply with subparagraph (1)(a)2. of this rule for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

1. Measure the gauge pressure in the gas collection header on a monthly basis as provided in subparagraph (4)(a)3. of this rule; and
2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(i) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by subparagraph (6)~~(c)~~(d)2. of this rule.

(ii) Unless an alternative test method is established as allowed by subparagraph (6)~~(c)~~(d)2. of this rule, the oxygen level shall be determined by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (incorporated by reference, see 40 CFR §60.17). Determine the oxygen level by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (if sample location is prior to combustion) except that:

(I) The span shall be set between 10 and 12 percent oxygen;

(II) A data recorder is not required;

(III) Only two calibration gases are required, a zero and span;

(IV) A calibration error check is not required; and

(V) The allowable sample bias, zero drift, and calibration drift are ±10 percent.

(iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(I) The analyzer is calibrated; and

(II) The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11 (incorporated by reference, see 40 CFR §60.17).

3. Monitor temperature of the landfill gas on a monthly basis as provided in subparagraph (4)(a)5. of this rule. The temperature measuring device shall be calibrated annually using the procedure in this 40 CFR Part 60, Appendix A-1, Method 2, Section 10.3.

(b) Each owner or operator seeking to comply with subparagraph (1)(b)2.(iii) of this rule using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment.

1. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in Celsius or ±0.5 °C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.

2. A device that records flow to the control device and bypass of the control device (if applicable). The owner or operator shall:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; and

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(c) Each owner or operator seeking to comply with subparagraph (1)(b) of this rule using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

1. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.

2. A device that records flow to the flare and bypass of the flare (if applicable). The owner or operator shall:

(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; and
(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(d) Each owner or operator seeking to demonstrate compliance with subparagraph (1)(b)2.(iii) of this rule using a device other than an open flare or an enclosed combustor or a treatment system shall provide information satisfactory to the Director as provided in subparagraph (6)~~(c)~~(d)2. of this rule, describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Director shall review the information and either approve it, or request that additional information be submitted. The Director may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in paragraph (8) of this rule or seeking to monitor alternative parameters to those required by paragraphs (2) through (5) of this rule shall provide information satisfactory to the Director as provided in subparagraphs (6)~~(c)2. And~~(d)2. and 3. of this rule, describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Director may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with the 500 parts per million surface methane operational standard in subparagraph (2)(d) of this rule, shall monitor surface concentrations of methane according to the procedures provided in subparagraph (4)(c) of this rule, and the instrument specifications in subparagraph (4)(d) of this rule. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

(g) Each owner or operator seeking to demonstrate compliance with the control system requirements in subparagraph (1)(b) of this rule, using a landfill gas treatment system shall maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific

treatment system monitoring plan required in subparagraph (7)(b)5.(ii) of this rule, and shall calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). The owner or operator shall:

1. Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and

2. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(h) The monitoring requirements of subparagraphs (b), (c) (d) and (g) of this paragraph apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator shall complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

(6) Reporting Requirements. Except as provided 40 CFR §60.24 and in subparagraph (6)~~(c)~~(d)2. of this rule,

(a) *Design capacity report*. Each owner or operator subject to the requirements of this Chapter shall submit an initial design capacity report to the Director.

1. The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required under §60.7(a)(1), 40 CFR and shall be submitted no later than 90 days from the effective date of these rules.

2. The initial design capacity report shall contain the following information:

(i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the provisions of the State permit;

(ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the State permit, a copy of the permit specifying the maximum design capacity may be submitted as part

of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation shall include a site-specific density, which shall be recalculated annually. Any density conversions shall be documented and submitted with the design capacity report. The Director may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

3. If a facility has submitted an initial design capacity report and an initial NMOC emission rate report to the EPA as required by 40 CFR Part 62, Subpart OOO, a copy of that report may be submitted to the Department in lieu of the initial reports required in 335-3-19-.03(6)(a) and 335-3-19-.03(6)(c).

(b) *Amended design capacity report.* An amended design capacity report shall be submitted to the Director providing notification of any increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in subparagraph (7)(f) of this rule.

(c) *NMOC emission rate report.* Each owner or operator of an existing MSW landfill subject to the requirements of this Chapter with a design capacity equal to or greater than 2.5million megagrams and 2.5 million cubic meters, shall submit an NMOC emission rate report to the Director annually following the procedure specified in subparagraph ~~(i)2. of this paragraph, except as provided for in subparagraph (b)~~ (j)2. of this paragraph, except as provided for in subparagraph (c)3. of this paragraph. The Director may request such additional information as may be necessary to verify the reported NMOC emission rate.

1. The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in subparagraphs (3)(a) or (b) of this rule, as applicable.

(i) The NMOC emission rate report shall be submitted following the procedure specified in subparagraph ~~(i)~~(j)2. of this paragraph no later than 90 days from the effective date of these rules.

2. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.

3. If the estimated NMOC emission rate as reported in the annual report to the Director is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in subparagraph ~~(i)~~ (j)2. of this paragraph, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Director. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Director. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

4. Each owner or operator subject to the requirements of this Chapter is exempted to submit an NMOC emission rate report after the installation of a collection and control system in compliance with subparagraphs (l)(a) and (b) of this rule, during such time as the collection and control system is in operation and in compliance with paragraphs (2) and (4) of this rule.

5. If a facility has submitted an initial design capacity report and an initial NMOC emission rate report to the EPA as required by 40 CFR Part 62, Subpart OOO, a copy of that report may be submitted to the Department in lieu of the initial reports required in 335-3-19-.03(6)(a) and 335-3-19-.03(6)(c).

(d) *Collection and control system design plan.* A design plan for each gas collection and control system shall be prepared and approved by a professional engineer and shall meet the following requirements:

1. The collection and control system as described in the design plan shall meet the design requirements in subparagraphs (l)(a) and (b) of this rule.

2. The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions of paragraphs (4) through (7) of this rule, proposed by the owner or operator.

3. The collection and control system design plan shall either conform to specifications for active collection systems in paragraph (8) of this rule, or include a demonstration to the Director's satisfaction of the sufficiency of the alternative provisions to paragraph (8) of this rule.

4. Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall submit a copy of the collection and control system design plan cover page that contains the engineer's seal to the Director within 1 year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, except as follows:

(i) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in subparagraph (3)(a)3. of this rule and the resulting rate is less than 34 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated NMOC emission rate based on NMOC sampling and analysis, shall be submitted, following the procedures in subparagraph (6) ~~(i)2. of this rule~~ (j)2. of this paragraph, within 180 days of the first calculated exceedance of 34 megagrams per year.

(ii) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in subparagraph (3)(a)4. of this rule, and the resulting NMOC emission rate is less than 34 Mg/yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the NMOC emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of subparagraph (3)(a)4. of this rule and the resulting site-specific methane

generation rate constant (k) shall be submitted to the Director within 1 year of the first calculated NMOC emission rate equaling or exceeding 34 megagrams per year.

(iii) If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on the provisions of subparagraph (3)(a)6. of this rule, then the owner or operator shall submit annually a Tier 4 surface emissions report as specified in this subparagraph (d)4.(iii) following the procedure specified in subparagraph (6)~~(i)~~(j)2. of this paragraph until a surface emissions readings of 500 parts per million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts per million methane or greater for four consecutive quarters at a closed landfill, then the landfill owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The Director may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report shall clearly identify the location, date and time (to the nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, the owner or operator shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places. The Tier 4 surface emission report should also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.

(I) The initial Tier 4 surface emissions report shall be submitted annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane, and following the procedure specified in subparagraph (6)~~(i)~~(j)2. of this paragraph.

(II) The Tier 4 surface emissions rate report shall be submitted within 1 year of the first measured surface exceedance of 500 parts per million methane, following the procedure

specified in subparagraph (6)~~(i)~~(j)2. of this paragraph.

(iv) If the landfill is in the closed landfill subcategory, the owner or operator shall submit a collection and control system design plan to the Director within 1 year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 50 megagrams per year, except as follows:

(I) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in subparagraph (3)(a)3. of this rule, and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated NMOC emission rate based on NMOC sampling and analysis, shall be submitted, following the procedure specified in subparagraph (6)~~(i)~~(j)2. of this paragraph, within 180 days of the first calculated exceedance of 50 megagrams per year.

(II) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k, as provided in Tier 3 in subparagraph (3)(a)4. of this rule, and the resulting NMOC emission rate is less than 50 megagrams per year, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant k shall be used in the NMOC emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of subparagraph (3)(a)4. of this rule, and the resulting site-specific methane generation rate constant k shall be submitted, following the procedure specified in subparagraph (6)~~(i)~~(j)2. of this paragraph, to the Director within 1 year of the first calculated NMOC emission rate equaling or exceeding 50 megagrams per year.

(III) The landfill owner or operator elects to demonstrate surface emissions are low, consistent with the provisions in subparagraph (d)4.(iii) of this paragraph.

(IV) The landfill has already submitted a gas collection and control system design plan consistent with the provisions of Subpart WWW of 40 CFR part 60 or any other requirements of this Chapter.

5. The landfill owner or operator shall notify the Director that the design plan is completed and submit a copy of the plan's signature page. The Director has 90 days to decide whether the design plan should be submitted for review. If the Director chooses to review the plan, the approval process continues as described in subparagraph ~~(c)~~ (d) 6. of this paragraph. However, if the Director indicates that submission is not required or does not respond within 90 days, the landfill owner or operator can continue to implement the plan with the recognition that the owner or operator is proceeding at their own risk. In the event that the design plan is required to be modified to obtain approval, the owner or operator shall take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.

6. Upon receipt of an initial or revised design plan, the Director shall review the information submitted under subparagraphs (6)~~(c)~~ (d) 1. through 3. of this paragraph, and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems. If the Director does not approve or disapprove the design plan, or does not request that additional information be submitted within 90 days of receipt, then the owner or operator may continue with implementation of the design plan, recognizing they would be proceeding at their own risk.

7. If the owner or operator chooses to demonstrate compliance with the emission control requirements of this Chapter using a treatment system as defined in this Chapter, then the owner or operator shall prepare a site-specific treatment system monitoring plan as specified in subparagraph (7)(b)5. of this rule.

(e) *Revised design plan*. The owner or operator who has already been required to submit a design plan under subparagraph ~~(c)~~ (d) of this paragraph, or under Subpart WWW of 40 CFR part 60; or any other requirements of this Chapter

shall submit a revised design plan to the Director for approval as follows:

1. At least 90 days before expanding operations to an area not covered by the previously approved design plan.

2. Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Director according to subparagraph ~~(c)~~ (d) of this paragraph.

(f) *Closure report.* Each owner or operator of a controlled landfill shall submit a closure report to the Director within 30 days of waste acceptance cessation. The Director may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of ADEM Admin. Code Chapter 335-13-4. If a closure report has been submitted to the Director, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4), 40 CFR.

(g) *Equipment removal report.* Each owner or operator of a controlled landfill shall submit an equipment removal report to the Director 30 days prior to removal or cessation of operation of the control equipment.

1. The equipment removal report shall contain all of the following items:

(i) A copy of the closure report submitted in accordance with subparagraph ~~(c)~~ (f) of this paragraph;

(ii) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX, or information that demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the

equipment removal report in lieu of the NMOC emission rate reports; or

(iv) For the closed landfill subcategory, dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

2. The Director may request such additional information as may be necessary to verify that all of the conditions for removal in subparagraph (l)(e)2. of this rule have been met.

(h) *Annual report*. Each owner or operator of a landfill seeking to comply with subparagraph (1)(d) of this rule using an active collection system designed in accordance with subparagraph (l)(a) of this rule shall submit to the Director annual reports of the recorded information in subparagraphs ~~(g)1. through (g)~~(h)1. through (h)6. of this paragraph. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under §60.8, 40 CFR as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. In the initial annual report, the process unit(s) tested, the pollutant(s) tested and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX. The initial performance test report shall be submitted, following the procedure specified in subparagraph ~~(i)~~(j)1. of this paragraph, no later than the date that the initial annual report is submitted. For enclosed combustion devices and flares, reportable exceedances are defined under subparagraph (7)(c) of this rule. If complying with the operational provisions of 40 CFR §§63.1958, 63.1960, and 63.1961, as allowed in paragraphs (2), (4), and (5) of this rule, the owner or operator shall follow the semi-annual reporting requirements in §63.1981(h) in lieu of this paragraph.

1. Value and length of time for exceedance of applicable parameters monitored under subparagraphs (5)(a)1., (b), (c), (d), and (g) of this rule.

2. Description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified under paragraph (5) of this rule.
3. Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.
4. All periods when the collection system was not operating.
5. The location of each exceedance of the 500 parts per million methane concentration as provided in subparagraph (2)(d) of this rule and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, the owner or operator shall determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places.
6. The date of installation and the location of each well or collection system expansion added pursuant to subparagraphs (a)3., (a)5., (b), and (c)4. of paragraph (4).
7. For any corrective action analysis for which corrective actions are required in subparagraph (4)(a)3. or 5. of this rule, and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or elevated temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(i) *Initial performance test report.* Each owner or operator seeking to comply with subparagraph (1)(b) of this rule shall include the following information with the initial performance test report required under §60.8, 40 CFR:

1. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;
2. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;
3. The documentation of the presence of asbestos or nondegradable material for each area from which

collection wells have been excluded based on the presence of asbestos or nondegradable material;

4. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;

5. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

6. The provisions for the control of off-site migration.

(j) *Electronic reporting*. The owner or operator shall submit reports electronically according to subparagraphs ~~(i)~~ (j)1. and 2. of this paragraph.

1. Within 60 days after the date of completing each performance test (as defined in 40 CFR §60.8), the owner or operator shall submit the results of each performance test according to the following procedures:

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site https://www3.epa.gov/ttn/chief/ert/ert_info.html( ) at the time of the test, the owner or operator shall submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through https://cdx.epa.gov/the EPA's Central Data Exchange (CDX) ( ). Performance test data shall be submitted in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site, once the XML schema is available. If the owner or operator claim that some of the performance test information being submitted is confidential business information (CBI), the owner or operator shall submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive or other commonly used electronic storage media to the EPA. The electronic media shall be clearly marked as CBI and mailed to U.S. EPA/ OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted shall be submitted to the

EPA via the EPA's CDX as described earlier in this subparagraph (i)1.(i) of this paragraph.

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the owner or operator shall submit the results of the performance test to the Director at the appropriate address listed in 40 CFR § 60.4.

2. Each owner or operator required to submit reports following the procedure specified in this paragraph shall submit reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The owner or operator shall use the appropriate electronic report in CEDRI for this Chapter or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (*https://www3.epa.gov/ttn/chief/cedri/index.html*). If the reporting form specific to this Chapter is not available in CEDRI at the time that the report is due, the owner or operator shall submit the report to the Director at the appropriate address listed in §60.4. Once the form has been available in CEDRI for 90 calendar days, the owner or operator shall begin submitting all subsequent reports via CEDRI. The reports shall be submitted by the deadlines specified in this Chapter, regardless of the method in which the reports are submitted.

(k) *Corrective action and the corresponding timeline*. The owner or operator shall submit according to subparagraphs (k)1. and 2. of this paragraph. If complying with the operational provisions of 40 CFR §§ 63.1958, 63.1960, and 63.1961, as allowed in paragraphs (2), (4), and (5) of this rule, the owner or operator shall follow the corrective action and the corresponding timeline reporting requirements in 40 CFR §63.1981(j) in lieu of subparagraphs (k)~~(1) and (2)~~1. and 2. of this paragraph.

1. For corrective action that is required according to subparagraphs (4)(a)3.(iii) or (a)5.(iii) of this rule, and is expected to take longer than 120 days after the initial exceedance to complete, the owner or operator shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Director as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above. The Director shall approve the plan for corrective action and the corresponding timeline.

2. For corrective action that is required according to subparagraphs (4)(a)3.(iii) or (a)5.(iii) of this rule,

and is not completed within 60 days after the initial exceedance, the owner or operator shall submit a notification to the Director as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

(l) *Liquids addition*. The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last 10 years shall submit to the Director, annually, following the procedure specified in subparagraph (j)2. of this paragraph, the following information:

1. Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates).

2. Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates).

3. Surface area (acres) over which the leachate is recirculated (or otherwise applied).

4. Surface area (acres) over which any other liquids are applied.

5. The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records to the extent data are available, or engineering estimates and the reported basis of those estimates.

6. The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids, based on on-site records to the extent data are available, or engineering estimates.

7. The initial report shall contain items in subparagraph ~~(k)~~ (l)1. through 6. of this paragraph per year for the most recent 365 days as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report shall be submitted no later than:

(i) September 27, 2017, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016; or

(ii) 365 days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016.

8. Subsequent annual reports shall contain items in subparagraph ~~(k)~~ (l)1. through 6. of this paragraph for

the 365-day period following the 365-day period included in the previous annual report, and the report shall be submitted no later than 365 days after the date the previous report was submitted.

9. Landfills in the closed landfill subcategory are exempt from reporting requirements contained in subparagraphs ~~(k)~~ (l)1. through 7. of this paragraph.

10. Landfills may cease annual reporting of items in subparagraphs ~~(k)1. through 6. of this paragraph once they have submitted the closure report in subparagraph (e)~~(l)1. through 6. of this paragraph once they have submitted the closure report in subparagraph (f) of this paragraph.

(m) *Tier 4 notification.*

1. The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters shall provide a notification of the date(s) upon which it intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on the Tier 4 provisions of subparagraph (3)(a)6. of this rule. The landfill shall also include a description of the wind barrier to be used during the SEM in the notification. Notification shall be postmarked not less than 30 days prior to such date.

2. If there is a delay to the scheduled Tier 4 SEM date due to weather conditions, including not meeting the wind requirements in subparagraph (3)(a)6.(iii)(I) of this rule, the owner or operator of a landfill shall notify the Director by email or telephone no later than 48 hours before any known delay in the original test date, and arrange an updated date with the Director by mutual agreement.

(n) Each owner of operator that chooses to comply with the provisions in 40 CFR §§ 63.1958, 63.1960, and 63.1961, as allowed in paragraphs (2), (4), and (5) of this rule , ~~the owner or operator~~ shall submit the high temperature report according to §63.1981(k).

(7) Recordkeeping Requirements.

(a) Except as provided in subparagraph (6)~~(c)~~(d)2. of this rule, each owner or operator of an MSW landfill subject to the provisions of subparagraph (1)(d) of this rule shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered subparagraph (1)(d), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(b) Except as provided in subparagraph (6)~~(c)~~(d)2. of this rule, each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in subparagraphs (b)1. through (b)5. of this paragraph as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

1. Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with subparagraph (1)(a) of this Rule:

(i) The maximum expected gas generation flow rate as calculated in subparagraph (4)(a)1. of this rule. The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the ~~Director~~Administrator.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in subparagraph (8)(a)1. of this rule.

2. Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with subparagraph (1)(b) of this rule through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:

(i) The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

(ii) The percent reduction of NMOC determined as specified in subparagraph (1)(b)2. of this paragraph achieved by the control device.

3. Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with subparagraph (1)(b)2.(i) of this rule through use of a boiler or process heater of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.

4. Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with subparagraph (1)(b)1. of this rule through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity

determinations made during the performance test as specified in §60.18, 40 CFR; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.

5. Where an owner or operator subject to the provisions of this Chapter seeks to demonstrate compliance with subparagraph (1)(b)3. of this rule through use of a landfill gas treatment system:

(i) *Bypass records*. Records of the flow of landfill gas to, and bypass of, the treatment system.

(ii) *Site-specific treatment monitoring plan*, to include:

(I) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.

(II) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.

(III) Documentation of the monitoring methods and ranges, along with justification for their use.

(IV) Identify who is responsible (by job title) for data collection.

(V) Processes and methods used to collect the necessary data.

(VI) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

(c) Except as provided in subparagraph (6)~~(c)~~(d)2. of this rule, each owner or operator of a controlled landfill subject to the provisions of this Chapter shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in paragraph (5) of this rule as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

1. The following constitute exceedances that shall be recorded and reported under subparagraph (6) of this rule:

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 C (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with subparagraph (l)(b) of this rule was determined.

(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under subparagraph (b)3. of this paragraph.

2. Each owner or operator subject to the provisions of this Chapter shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under paragraph (5) of this rule.

3. Each owner or operator subject to the provisions of this Chapter who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with subparagraph (l)(b) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State regulatory requirements.)

4. Each owner or operator seeking to comply with the provisions of this Chapter by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under subparagraph (5)(c) of this rule, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

5. Each owner or operator of a landfill seeking to comply with subparagraph (l)(d) of this rule using an active collection system designed in accordance with subparagraph (l)(d) of this rule shall keep records of periods when the collection system or control device is not operating.

(d) Except as provided in subparagraph (6)~~(c)~~(d)2. of this rule, each owner or operator subject to the provisions of this Chapter shall keep for the life of the collection system an up-to-date, readily accessible plot map showing

each existing and planned collector in the system and providing a unique identification location label for each collector that matches the labeling on the plot map.

1. Each owner or operator subject to the provisions of this Chapter shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under subparagraph (4)(b) of this rule.

2. Each owner or operator subject to the provisions of this Chapter shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in subparagraph (8)(a)3.(i) of this rule as well as any nonproductive areas excluded from collection as provided in subparagraph (8)(a)3.(ii) of this rule.

(e) Except as provided in subparagraph (6)(d)2. of this rule, each owner or operator subject to the provisions of this Chapter shall keep for at least 5 years up-to-date, readily accessible records of the items in subparagraphs (e) ~~(1) through (5)~~1. through 5. of this paragraph. Each owner or operator that chooses to comply with the provisions in 40 CFR §§63.1958, 63.1960, and 63.1961, as allowed in paragraphs (2), (4), and (5) of this rule, shall keep the records in subparagraph (e)(6) of this paragraph and must keep records according to 40 CFR §63.1983(e)(1) through (5) in lieu of subparagraphs (e)~~(1) through (5)~~1. through 5. of this paragraph.

1. All collection and control system exceedances of the operational standards in paragraph (2) of this rule, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

2. Each owner or operator subject to the provisions of this Chapter shall also keep records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.

3. For any root cause analysis for which corrective actions are required in subparagraph (4)(a)3. or 5. of this rule, keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.

4. For any root cause analysis for which corrective actions are required in subparagraph (4)(a)3.(ii) or (a)5.(ii) of this rule, keep a record of the root cause analysis conducted, the corrective action analysis, the

date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

5. For any root cause analysis for which corrective actions are required in subparagraph (4)(a)3.(iii) or (a)5.(iii) of this rule, keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the regulatory agency.

6. Each owner or operator that chooses to comply with the provisions in 40 CFR §§63.1958, 63.1960, and 63.1961, shall keep records of the date upon which the owner or operator started complying with the provisions in §§63.1958, 63.1960, and 63.1961.

(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity", shall keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic format are acceptable.

(g) Landfill owners or operators seeking to demonstrate that site-specific surface methane emissions are below 500 parts per million by conducting surface emission monitoring under the Tier 4 procedures specified in subparagraph (3)(a)6. of this rule shall keep for at least 5 years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of Method 21 of appendix A of 40 CFR Part 60, including all of the following items:

1. Calibration records:

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value.
(v) If an owner or operator makes their own calibration gas, a description of the procedure used.

2. Digital photographs of the instrument setup. The photographs shall be time and date-stamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration.

3. Timestamp of each surface scan reading:
(i) Timestamp should be detailed to the nearest second, based on when the sample collection begins.
(ii) A log for the length of time each sample was e.g.,taken using a stopwatch ( the time the probe was held over the area).

4. Location of each surface scan reading. The owner or operator shall determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates shall be in decimal degrees with at least five decimal places.

5. Monitored methane concentration (parts per million) of each reading.

6. Background methane concentration (parts per million) after each instrument calibration test.

7. Adjusted methane concentration using most recent calibration (parts per million).

8. For readings taken at each surface penetration, the unique identification location label matching the label specified in subparagraph (d) of this paragraph.

9. Records of the operating hours of the gas collection system for each destruction device.

(h) Except as provided in subparagraph (6)~~(e)~~(d)2. of this rule, each owner or operator subject to the provisions of this Chapter shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in subparagraphs~~—~~ (5)(a)1., 2., and 3. of this rule.

(i) Any records required to be maintained by this Chapter that are submitted electronically via the EPA's CDX may be maintained in electronic format.

(j) For each owner or operator reporting leachate or other liquids addition under subparagraph (6)~~(k)~~(l) of this rule, keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste

acceptance or total waste in place in the areas where leachate or liquids were applied.

(8) Specifications for Active Collection Systems.

(a) Each owner or operator seeking to comply with subparagraph (1)(a) of this rule shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Director.

1. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.

2. The sufficient density of gas collection devices determined in subparagraph (a)1. of this paragraph shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

3. The placement of gas collection devices determined in subparagraph (a)1. of this paragraph shall control all gas producing areas, except as provided by subparagraphs (a)3.(i) and (a)3.(ii) of this paragraph.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under subparagraph (7)(d) of this rule. The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Director upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Director upon request. A separate NMOC emissions estimate shall be made for each section proposed for

exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill.

(I) The NMOC emissions from each section proposed for exclusion shall be computed using the following equation:

$$Q_i = 2kL_oM_i\left(e^{-kt_i}\right)\left(C_{NMOC}\right)\left(3.6x10^{-9}\right)$$

where,

$Q_i$ = NMOC emission rate from the ith section, megagrams per year

k = methane generation rate constant, year-1

$L_o$ = methane generation potential, cubic meters per megagram solid waste

$M_i$ = mass of the degradable solid waste in the ith section, megagram ti = age of the solid waste in the ith section, years

$C_{NMOC}$ = concentration of nonmethane organic compounds, parts per million by volume

$3.6 \times 10^{-9}$ = conversion factor

(II) If the owner or operator is proposing to exclude, or cease gas collection and control from, nonproductive e.g.,physically separated ( separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area shall be computed using either equation in subparagraph (3)(b) of this rule, or the equation in subparagraph (a)3.(ii)(I) of this paragraph.

(iii) The values for k, and CNMOC determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, Lo and CNMOC provided in paragraph (3) of this rule or the alternative values from paragraph (3) of this rule shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in subparagraph (a)3.(i) of this paragraph.

(b) Each owner or operator seeking to comply with subparagraph (1)(a) of this rule shall construct the gas

collection devices using the following equipment or procedures:

1. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

2. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

3. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with subparagraph (1)(b) of this rule shall convey the landfill gas to a control system in compliance with subparagraph (1)(b) of this rule through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

1. For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in subparagraph (c)2. of this paragraph shall be used.

2. For new collection systems, the maximum flow rate shall be in accordance with subparagraph (4)(a)1. of this rule.

**Author**: Ronald W. Gore

**Statutory Authority**: Code of Ala. 1975, §§22-28-14, 22-22A-5, 22-22A-6, 22-22A-8.

**History**: **New Rule**: Filed December 11, 1997; effective January 15, 1998. **Amended**: Filed December 9, 1999; effective January 13, 2000. **Amended**: Filed August 3, 2000; effective September 7, 2000. **Amended**: Filed February 7, 2002; effective March 14, 2002. **Amended**: Filed April 25, 2017; effective June 9, 2017. **Repealed**: Filed August 21, 2018; effective October 5, 2018. **New Rule**: Published October 29, 2021; effective December 13, 2021. **Amended**: Published ; effective .

335-3-C **Appendix C - EPA Reference Documents For New Source Performance Standards And National Emission Standards For Hazardous Air Pollutants.**

**APPENDIX C**
**ENVIRONMENTAL PROTECTION AGENCY REGULATIONS**
**REFERENCE DOCUMENTS**
**CROSS REFERENCED TO ADEM RULES AND REGULATIONS**
**NEW SOURCE PERFORMANCE STANDARDS**
**NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS**

The complete text of all finalized EPA regulations incorporated into these regulations is located in the documents listed below. Amendments, revisions, or clarifications of EPA regulations which have been codified in the CFR, as well as of finalized regulations which have not yet been codified, are not included in this listing and interested parties are advised to consult the Federal Register for such amendments or revisions. The exceptions listed below are identified by EPA as nondelegable to the States.

| ADEM Chapter 335-3-10 | 40 CFR Part 60 | Exceptions |
|---|---|---|
| 335-3-10-.02(1) Subpart A | Subpart A | §60.8(b)(2) |
| | | §60.8(b)(3) |
| | | §60.11(e)(7) |
| | | §60.11(e)(8) |
| | | §60.13(g) |
| | | §60.13(i) |
| | | §60.13(j)(2) |
| 335-3-10-.02(2) Subpart D | Subpart D | |
| 335-3-10-.02(2)(a) Subpart Da | Subpart Da | §60.45a |
| 335-3-10-.02(2)(b) Subpart Db | Subpart Db | §60.44b(f) |
| | | §60.44b(g) |
| | | §60.49b(a)(4) |
| 335-3-10-.02(2)(c) Subpart Dc | Subpart Dc | §60.48c(a)(4) |
| 335-3-10-.02(3) Subpart E | Subpart E | |
| 335-3-10-.02(3)(a) Subpart Ea | Subpart Ea | |
| 335-3-10-.02(3)(b) Subpart Eb | Subpart Eb | |
| 335-3-10-.02(3)(c) Subpart Ec | Subpart Ec | §60.56c(i) |
| 335-3-10-.02(4) Subpart F | Subpart F | §60.66 |
| 335-3-10-.02(5) Subpart G | Subpart G | |
| 335-3-10-.02(5)(a) Subpart Ga | Subpart Ga | |
| 335-3-10-.02(6) Subpart H | Subpart H | |
| 335-3-10-.02(7) Subpart I | Subpart I | |
| 335-3-10-.02(8) Subpart J | Subpart J | §60.105(a)(13)(iii) |
| | | §60.106(i)(12) |
| 335-3-10-.02(8)(a) Subpart Ja | Subpart Ja | §60.109b |
| 335-3-10-.02(9) Subpart K | Subpart K | |
| 335-3-10-.02(9)(a) Subpart Ka | Subpart Ka | §60.114a |
| 335-3-10-.02(9)(b) Subpart Kb | Subpart Kb | §60.111b(f)(4) |
| | | §60.114(b) |

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|---|---|---|
| | | §60.116(e)(3)(iii)<br>§60.116(e)(3)(iv)<br>§60.116b(f)(2)(iii) |
| 335-3-10-.02(12)<br>Subpart L | Subpart L | |
| 335-3-10-.02(13)<br>Subpart M | Subpart M | |
| 335-3-10-.02(14)<br>Subpart N | Subpart N | |
| 335-3-10-.02(14)(a)<br>Subpart Na | Subpart Na | |
| 335-3-10-.02(15)<br>Subpart O | Subpart O | §60.153(e) |
| 335-3-10-.02(16)<br>Subpart P | Subpart P | |
| 335-3-10-.02(17)<br>Subpart Q | Subpart Q | |
| 335-3-10-.02(18)<br>Subpart R | Subpart R | |
| 335-3-10-.02(19)<br>Subpart S | Subpart S | |
| 335-3-10-.02(20)<br>Subpart T | Subpart T | |
| 335-3-10-.02(21)<br>Subpart U | Subpart U | |
| 335-3-10-.02(22)<br>Subpart V | Subpart V | |
| 335-3-10-.02(23)<br>Subpart W | Subpart W | |
| 335-3-10-.02(24)<br>Subpart X | Subpart X | |
| 335-3-10-.02(25)<br>Subpart Y | Subpart Y | |
| 335-3-10-.02(26)<br>Subpart Z | Subpart Z | |
| 335-3-10-.02(27)<br>Subpart AA | Subpart AA | |
| 335-3-10-.02(27)(a)<br>Subpart AAa | Subpart AAa | |
| 335-3-10-.02(27)(b) | Subpart AAb | |
| 335-3-10-.02(28)<br>Subpart BB | Subpart BB | |
| 335-3-10-.02(28)<br>Subpart BBa | Subpart BBa | |
| 335-3-10-.02(29)<br>Subpart CC | Subpart CC | |
| 335-3-10-.02(30)<br>Subpart DD | Subpart DD | |

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|---|---|---|
| 335-3-10-.02(31) Subpart EE | Subpart EE | §60.316(d) |
| 335-3-10-.02(32) Subpart FF | Subpart FF | |
| 335-3-10-.02(33) Subpart GG | Subpart GG | §60.334(b)(2) |
| | | §60.335(f)(1) |
| 35-3-10-.02(34) Subpart HH | Subpart HH | |
| 335-3-10-.02(35) Subpart II | Reserved | |
| 335-3-10-.02(36) Subpart JJ | Reserved | |
| 335-3-10-.02(37) Subpart KK | Subpart KK | |
| 335-3-10-.02(37)(a) Subpart KKa | Subpart KKa | |
| 335-3-10-.02(38) Subpart LL | Subpart LL | |
| 335-3-10-.02(39) Subpart MM | Subpart MM | |
| 335-3-10-.02(39)(a) Subpart MMa | Subpart MMa | |
| 335-3-10-.02(40) Subpart NN | Subpart NN | |
| 335-3-10-.02(41) Subpart OO | 335-3-10-.02(41) Subpart OO R | |
| 335-3-10-.02(42) Subpart PP | Subpart PP | |
| 335-3-10-.02(43) Subpart QQ | Subpart QQ | |
| 335-3-10-.02(44) Subpart RR | Subpart RR | §60.446(c) |
| 335-3-10-.02(45) Subpart SS | Subpart SS | §60.456(d) |
| 335-3-10-.02(46) Subpart TT | Subpart TT | §60.466(d) |
| 335-3-10-.02(47) Subpart UU | Subpart VV | §60.482-1(c)(2) |
| | | §60.484 |
| 335-3-10-.02(48)(a) Subpart VVa | Subpart VVa | |
| 335-3-10-.02(49) Subpart WW | Subpart WW | §60.496(c) |
| 335-3-10-.02(50) Subpart XX | Subpart XX | §60.502(e)(6) |
| 335-3-10-.02(51) Subpart YY | Reserved | |

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|---|---|---|
| 335-3-10-.02(52) Subpart ZZ | Reserved | |
| 335-3-10-.02(53) Subpart AAA | Reserved | |
| 335-3-10-.02(54) Subpart BBB | Subpart BBB | |
| | §60.543(c)(2)(ii)(B) | |
| 335-3-10-.02(55) Subpart CCC | Reserved | |
| 335-3-10-.02(56) Subpart DDD | Subpart DDD | §60.562-2(c) |
| 335-3-10-.02(57) Subpart EEE | Reserved | |
| 335-3-10-.02(58) Subpart FFF | Subpart FFF | |
| 335-3-10-.02(59) Subpart GGG | Subpart GGG | |
| 335-3-10-.02(59)(a) Subpart GGG(a) | Subpart GGG(a) | |
| 335-3-10-.02(60) Subpart HHH | Subpart HHH | |
| 335-3-10-.02(61) Subpart III | Subpart III | §60.613(e) |
| 335-3-10-.02(62) Subpart JJJ | Subpart JJJ | |
| 335-3-10-.02(63) Subpart KKK | Subpart KKK | |
| 335-3-10-.02(64) Subpart LLL | Subpart LLL | |
| 335-3-10-.02(65) Subpart MMM | Reserved | |
| 35-3-10-.02(66) Subpart NNN | Subpart NNN | §60.663(e) |
| 335-3-10-.02(67) Subpart OOO | Subpart OOO | |
| 335-3-10-.02(68) Subpart PPP | Subpart PPP | |
| 335-3-10-.02(69) Subpart QQQ | Subpart QQQ | |
| 335-3-10-.02(70) Subpart RRR | Subpart RRR | §60.703(e) |
| 335-3-10-.02(71) Subpart SSS | Subpart SSS | §60.711(a)(16) |
| | | §60.713(b)(1)(i) |
| | | §60.713(b)(1)(ii) |
| | | §60.713(b)(5)(i) |
| | | §60.713(d) |
| | | §60.715(a) |

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| | | §60.716 |
| 335-3-10-.02(72) Subpart TTT | Subpart TTT | §60.726(b) |
| 335-3-10-.02(72)(a) Subpart TTTa | Subpart TTTa | §60.726a(b) |
| 335-3-10-.02(73) Subpart UUU | Subpart UUU | |
| 335-3-10-.02(74) Subpart VVV | Subpart VVV | §60.743(a)(3)(v)(A) |
| | | §60.743(a)(3)(v)(B) |
| | | §60.743(e) |
| | | §60.745(a) |
| | | §60.746 |
| 335-3-10-.02(75) Subpart WWW | Subpart WWW | §60.754(a)(5) |
| 335-3-10-.02(76) Subpart | Subpart XXX | §60.754(a)(5) |
| 335-3-10-.02(77) Reserved | Reserved | |
| 335-3-10-.02(78) Reserved | Reserved | |
| 335-3-10-.02(79) Subpart AAAA | Subpart AAAA | |
| 335-3-10-.02(80) Reserved | Reserved | |
| 335-3-10-.02(81) Subpart CCCC | Subpart CCCC | §60.2030(c) |
| 335-3-10-.02(82) Reserved | Reserved | |
| 335-3-10-.02(83) Reserved | Reserved | |
| 335-3-10-.02(84) Reserved | Reserved | |
| **ADEM Chapter 335-3-10** | **40 CFR Part 60** | **Exceptions** |
| 335-3-10-.02(85) Reserved | Reserved | |
| 335-3-10-.02(86) Reserved | Reserved | |
| 335-3-10-.02(87) Subpart IIII | Subpart IIII | §60.2025 |
| 335-3-10-.02(88) Subpart JJJJ | Subpart JJJJ | |
| 335-3-10-.02(89) Subpart KKKK | Subpart KKKK | §60.2025 |
| 335-3-10-.02(90) Subpart LLLL | Subpart LLLL | §60.4785(c) |
| 335-3-10-.02(91) Subpart OOOO | Subpart OOOO | |

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| 335-3-10-.02(91a) Subpart OOOOa | Subpart OOOOa | |
| 335-3-10-.02 (92) Reserved | Reserved | |
| 335-3-10-.02 (93) Reserved | Reserved | |
| 335-3-10-.02 (94) Reserved | Reserved | |
| 335-3-10-.02 (95) Reserved | Reserved | |
| 335-3-10-.02 (96) TTTT | Subpart TTTT | §60.5575(b) |
| 335-3-10-.03(1) Appendix A | Appendix A | |
| 335-3-10-.03(2) Appendix B | Appendix B | |
| 335-3-10-.03(3) Appendix F | Appendix F | |
| **ADEM Chapter 335-3-11** | **40 CFR Part 61** | **Exceptions** |
| 335-3-11-.02(1) Subpart A | Subpart A | §61.04(b) |
| | | §61.12 |
| | | §61.13(h) |
| | | §61.13(i) |
| | | §61.14(d) |
| | | §61.14(g) |
| 335-3-11-.02(2) Subpart C | Subpart C | §61.32(b) |
| 335-3-11-.02(3) Subpart D | Subpart D | |
| 335-3-11-.02(4) Subpart E | Subpart E | §61.53(c)(4) |
| | | §61.55(d) |
| 335-3-11-.02(5) Subpart F | Subpart F | §61.66 |
| | | §61.67(g) |
| 335-3-11-.02(9) Subpart J | Subpart J | §61.112(c) |
| 335-3-11-.02(11) Subpart L | Subpart L | §61.136(d) |
| 335-3-11-.02(12) Subpart M | Subpart M | §61.149(c)(2) |
| | | §61.150(a)(4) |
| | | §61.151(c) |
| | | §61.152(b)(3) |
| | | §61.154(d) |
| | | §61.155(a) |
| 335-3-11-.02(13) Subpart N | Subpart N | §61.162(c) |
| | | §61.163(h) |

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| | | §61.164(a) |
| 335-3-11-.02(14) Subpart O | Subpart O | §61.174(a) |
| 335-3-11-.02(15) Subpart P | Subpart P | |
| 335-3-11-.02(21) Subpart V | Subpart V | §61.242-1(c)(2) |
| | | §61.244 |
| 335-3-11-.02(22) Reserved | Reserved | |
| 335-3-11-.02(23) Reserved | Reserved | |
| 335-3-11-.02(24) Subpart Y | Subpart Y | §61.273 |
| 335-3-11-.02(25) Reserved | Reserved | |
| 335-3-11-.02(26) Reserved | Reserved | |
| 335-3-11-.02(27) Subpart BB | Subpart BB | |
| 335-3-11-.02(28) Reserved | Reserved | |
| 335-3-11-.02(29) Reserved | Reserved | |
| 335-3-11-.02(30) Reserved | Reserved | |
| 335-3-11-.02(31) Subpart FF | Subpart FF | §61.353 |
| 335-3-11-.03(1) Appendix B | Appendix B | |
| **ADEM Chapter 335-3-11** | **40 CFR Part 63** | **Exceptions** |
| 335-3-11-.06(1) Subpart A | Subpart A | §63.6(g) |
| | | §63.6(h)(9) |
| | | §63.7(e)(2)(ii) |
| | | §63.7(f) |
| | | §63.8(f) |
| | | §63.10(f) |
| 335-3-11-.06(2) Subpart B | Subpart B | |
| 335-3-11-.06(3) Subpart D | Subpart D | |
| 335-3-11-.06(4) Reserved | Reserved | |
| 335-3-11-.06(5) Subpart F | Subpart F[1] | See Footnote |
| 335-3-11-.06(6) Subpart G | Subpart G | §63.153(c)(1)-(4) |
| | Subpart H[2] | See Footnote |

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|---|---|---|
| 335-4-11-.06(7) Subpart H | | |
| 335-3-11-.06(8) Subpart I | Subpart I[3] | See Footnote |
| 335-3-11-.06(9) Reserved | Reserved | |
| 335-3-11-.06(10) Reserved | Reserved | |
| 335-3-11-.06(11) Subpart L | Subpart L[4] | See Footnote |
| 335-3-11-.06(12) Subpart M | Subpart M[5] | See Footnote |

[1] The following are not delegable: (1) Approval of alternatives to requirements in §§ 63.100, 63.102, and 63.104. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[2] The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.160, 63.162 through 63.176, 63.178 through 63.179. Follow the applicable procedures of § 63.177 to request an alternative means of emission limitation for batch processes and enclosed-vented process units. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. Where these standards reference another subpart and modify the requirements, the requirements shall be modified as described in this subpart. Delegation of the modified requirements will also occur according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[3] The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.190 and 63.192(a) through (b), (e), and (h) through (j). Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

4 The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.300 and 63.302 through 63.308 (except the authorities in 63.306(a)(2) and (d)). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of any changes to section 2 of Method 303 in appendix A of this part. (4) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart. (5) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

| ADEM Chapter 335-3-11 | 40 CFR Part 63 | Exceptions |
|---|---|---|
| 335-3-11-.06(13) Subpart N | Subpart N | §63.348(c)(1)-(4) |
| 335-3-11-.06(14) Subpart O | Subpart O | §63.368(c)(1)-(4) |
| 335-3-11-.06(15) Reserved | Reserved | |
| 335-3-11-.06(16) Subpart Q | Subpart Q[6] | See Footnote |
| 335-3-11-.06(17) Subpart R | Subpart R | §63.429(c) |
| 335-3-11-.06(18) Subpart S | Subpart S[7] | See Footnote |
| 335-3-11-.06(19) Subpart T | Subpart T[8] | See Footnote |
| 335-3-11-.06(20) Subpart U | Subpart U[9] | See Footnote |
| 335-3-11-.06(21) Reserved | Reserved | |
| 335-3-11-.06(22) Subpart W | Subpart W[10] | See Footnote |
| 335-3-11-.06(23) Subpart X | Subpart X | §63.551(c)(1)-(4) |
| 335-3-11-.06(24) Subpart Y | Subpart Y | §63.568(c)(1)-(4) |
| 335-3-11-.06(25) Reserved | Reserved | |

[5] The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.320 and 63.322(a) through (j). Follow the requirements in § 63.325 to demonstrate that alternative equipment or procedures are equivalent to the requirements of § 63.322. (2) Approval of major alternatives to test methods under 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under § 63.8(f), as defined § 63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in § 63.90, and as required in this subpart.

[6] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.400 and 63.402 through 63.403. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in §63.90, and as required in this subpart.

[7] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.440, 63.443 through 63.447 and 63.450. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Approval of alternatives to using §§63.457(b)(5)(iii), 63.457(c)(5)(ii) through (iii), and 63.257(c)(5)(ii), and any major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in

this subpart. (3) Approval of alternatives using §64.453(m) and any major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in § 63.90, and as required in this subpart.

[8] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.460, 63.462(a) through (d), and 63.463 through 63.464 (except for the authorities in §63.463(d)(9)). Use the procedures in §63.469 to request the use of alternative equipment or procedures. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[9] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.480 through 63.481, 63.483(a) through (c), 63.484, 63.485(a) through (k), (m), through (s), (u), 63.486 through 63.487, 63.488(a), (b)(1) through (4), (5)(iv) through (v), (6) through (7), (c) through (i), 63.493 through 63.494, 63.500(a)(1) through (3), (b), 63.501, 63.502(a) through (f), (i), (k) through (m), and 63.503. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. Where these standards reference another subpart and modify the requirements, the requirements shall be modified as described in this subpart. Delegation of the modified requirements will also occur according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[10] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.520, 63.521, 63.523, and 63.524. Where these standards reference another rule, the cited provisions in that rule will be delegated according to the delegation provisions of that rule. (2) Approval of major alternatives to test methods for under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

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|---|---|---|
| 335-3-11-.06(26) Subpart AA | Subpart AA | §63.611(b)(1)-(5) |
| 335-3-11-.06(27) Subpart BB | Subpart BB | §63.632(b) |
| 335-3-11-.06(28) Subpart CC | Subpart CC | §63.656(c)(1)-(4) |
| 335-3-11-.06(29) Subpart DD | Subpart DD[11] | See Footnote |
| 335-3-11-.06(30) Subpart EE | Subpart EE[12] | See Footnote |
| | Reserved | |

| | | |
|---|---|---|
| 335-3-11-.06(31) Reserved | | |
| 335-3-11-.06(32) Subpart GG | Subpart GG | §63.759(c)(1)-(4) |
| 335-3-11-.06(33) Subpart HH | Subpart HH[13] | See Footnote |
| 335-3-11-.06(34) Subpart II | Subpart II[14] | See Footnote |
| 335-3-11-.06(35) Subpart JJ | Subpart JJ[15] | See Footnote |
| 335-3-11-.06(36) Subpart KK | Subpart KK[16] | See Footnote |
| 335-3-11-.06(37) Reserved | Reserved | |
| 335-3-11-.06(38) Subpart MM | Subpart MM | §63.868(b) |
| 335-3-11-.06(39) Reserved | Reserved | |
| 335-3-11-.06(40) Subpart OO | Subpart OO[17] | See Footnote |

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[11] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.680, 63.683 through 63.691, and 63.693. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[12] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.701 and 63.703. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[13] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.760, 63.764 through 63.766, 63.769, 63.771, and 63.777. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[14] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.780 through 63.781, and 63.783 through 63.784. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major

alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[15] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.800, 63.802, and 63.803(a)(1), (b), (c) introductory text, and (d) through (1). (2) Approval of alternatives to the monitoring and compliance requirements in §§63.804(f)(4)(iv)(D) and (E), 63.804(g)(4)(iii)(C), 63.804(g)(4)(vi), and 63.804(g)(6)(vi). (3) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart, as well as approval of any alternatives to the specific test methods under §§63.805(a), 63.805(d)(2)(v), and 63.805(e)(1). (4) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (5) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[16] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.820 through 63.821 and 63.823 through 63.826. (2) Approval of alternatives to the test method for organic HAP content determination in §63.827(b) and alternatives to the test method for volatile matter in §63.827(c), and major alternatives to other test methods under §63.7(e)((2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in defined in §63.90, and as required in this subpart.

[17] The following are not delegable: (1) Approval of alternatives to the requirements in §63.900 and 63.902. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in

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|---|---|---|
| 335-3-11-.06(41) Subpart PP | Subpart PP[18] | See Footnote |
| 335-3-11-.06(42) Subpart QQ | Subpart QQ[19] | See Footnote |
| 335-3-11-.06(43) Subpart RR | Subpart RR[20] | See Footnote |
| 335-3-11-.06(44) Subpart SS | Subpart SS | §63.992(b) |
| 335-3-11-.06(45) Subpart TT | Subpart TT[21] | See Footnote |
| 335-3-11-.06(46) Subpart UU | Subpart UU[22] | See Footnote |
| 335-3-11-.06(47) Subpart VV | Subpart VV[23] | See Footnote |
| 335-3-11-.06(48) Subpart WW | Subpart WW[24] | See Footnote |
| 335-3-11-.06(49) Subpart XX | Subpart XX | §63.1097(b) |
| | Subpart YY | §63.1114(c)(1)-(5) |

this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[18] The following are not delegable: (1) Approval of alternatives to the requirements in §§ 63.920 and 63.922 through 63.924. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[19] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.940, 63.942, and 63.943. Where these standards reference subpart DD, the cited provisions will be delegated according to the delegation provisions of subpart DD. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[20] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.960 and 63.962. Where these standards reference subpart DD, the cited provisions will be delegated according to the delegation provisions subpart DD of this part. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[21] The following are not delegable: (1) Approval of alternatives to the non-opacity emissions standards in §63.1003 through 63.1015, under §63.6(g). Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. (2) Reserved. (3) Approval of major changes to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90. (4) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90. (5) Approval of major changes to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

[22] The following are not delegable: (1) Approval of alternatives to the non-opacity emissions standards in §63.1022 through 63.1034, under §63.6(g), and the standards for quality improvement programs in §63.1035. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions

of the referenced subpart. (2) Reserved. (3) Approval of major changes to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90. (4) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90. (5) Approval of major changes to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

[23] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.1040 and 63.1042 through 63.1045. Where these standards reference subpart DD, the cited provisions will be delegated according to the delegation provisions of subpart DD of this part. (2) Approval of major alternatives to test methods under §63.7(e)(20(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[24] The following are not delegable: (1) Approval of alternatives to the non-opacity emissions standards in §§63.1062 and 63.1063(a) and (b) for alternative means of emission limitation, under §63.6(g). (2) Reserved. (3) Approval of major changes to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90. (4) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90. (5) Approval of major changes to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

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|---|---|---|
| 335-3-11-.06(51) Reserved | Reserved | |
| 335-3-11-.06(52) Reserved | Reserved | |
| 335-3-11-.06(53) Reserved | Reserved | |
| 335-3-11-.06(54) Subpart CCC | Subpart CCC[25] | See Footnote |
| 335-3-11-.06(55) Subpart DDD | Subpart DDD | §63.1195(c) |
| 335-3-11-.06(56) Subpart EEE | Subpart EEE[26] | See Footnote |
| 335-3-11-.06(57) Reserved | Reserved | |
| 335-3-11-.06(58) Subpart GGG | Subpart GGG | §63.1261(c)(1)-(4) |
| 335-3-11-.06(59) Subpart HHH | Subpart HHH[27] | See Footnote |
| 335-3-11-.06(60) Subpart III | Subpart III | §63.1309(c)(1)-(4) |
| 335-3-11-.06(61) Subpart JJJ | Subpart JJJ | §63.1336(c)(1)-(4) |
| 335-3-11-.06(62) Reserved | Reserved | |
| 335-3-11-.06(63) Subpart LLL | Subpart LLL | §63.1358 |
| 335-3-11-.06(64) Subpart MMM | Subpart MMM | §63.1369(c)(1)-(4) |
| | Subpart NNN | §63.1388(c) |

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|---|---|---|
| 335-3-11-.06(65) Subpart NNN | | |
| 335-3-11-.06(66) Subpart OOO | Subpart OOO | §63.1419(c)(1)-(4) |
| 335-3-11-.06(67) Subpart PPP | Subpart PPP | §63.1421(c)(1)-(4) |
| 335-3-11-.06(68) Reserved | Reserved | |
| 335-3-11-.06(69) Subpart RRR | Subpart RRR | §63.1519(c)(1)-(4) |
| 335-3-11-.06(70) Reserved | Reserved | |
| 335-3-11-.06(71) Reserved | Reserved | |
| 335-3-11-.06(72) Subpart UUU | Subpart UUU | §63.1578(c)(1)-(5) |
| 335-3-11-.06(73) Subpart VVV | Subpart VVV[28] | See Footnote |
| 335-3-11-.06(74) Reserved | Reserved | |
| 335-3-11-.06(75) Subpart XXX | Subpart XXX[29] | See Footnote |

[25] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.1155, 63.1157 through 63.1159, and 63.1160(a). (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of any alternative measurement methods for HCl and CL2 to those specified in §63.1161(d)(1). (4) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (5) Approval of any alternative monitoring requirements to those specified in §§63.1162(a)(2) through (5) and 63.1162(b)(1) through (3). (6) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart. (7) Waiver of recordkeeping requirements specified in §63.1165. (8) Approval of an alternative schedule for conducting performance tests to the requirement specified in §63.1162 (a)(1).

[26] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.1200, 63.1203 through 63.1205, and 63.1206(a). (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[27] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.1270, 63.1274 through 63.1275, 63.1281, and 63.1287. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under

§63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[28] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.1580, 63.1583 through 63.1584, and 63.1586 through 63.1587. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[29] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.1650 and 63.1652 through 63.1654. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart. (3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as

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|---|---|---|
| 335-3-11-.06(76) Reserved | Reserved | |
| 335-3-11-.06(77) Reserved | Reserved | |
| 335-3-11-.06(78) Subpart AAAA | Subpart AAAA | §63.1985(c) |
| 335-3-11-.06(79) Reserved | Reserved | |
| 335-3-11-.06(80) Subpart CCCC | Subpart CCCC | |
| 335-3-11-.06(81) Subpart DDDD | Subpart DDDD | §63.2291(c) |
| 335-3-11-.06(82) Subpart EEEE | Subpart EEEE | §63.2402(b) |
| 335-3-11-.06(83) Subpart FFFF | Subpart FFFF | §63.2545(b) |
| 335-3-11-.06(84) Subpart GGGG | Subpart GGGG | §63.2871(c) |
| 335-3-11-.06(85) Subpart HHHH | Subpart HHHH[30] | See Footnote |
| 335-3-11-.06(86) Subpart IIII | Subpart IIII | §63.3175(c) |
| 335-3-11-.06(87) Subpart JJJJ | Subpart JJJJ | §63.3420(b) |
| 335-3-11-.06(88) Subpart KKKK | Subpart KKKK | §63.3560(c) |
| 335-3-11-.06(89) Reserved | Reserved | |
| 335-3-11-.06(90) Subpart MMMM | Subpart MMMM | §63.3980(c) |
| | Subpart NNNN | §63.4180(c) |

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|---|---|---|
| 335-3-11-.06(91) Subpart NNNN | | |
| 335-3-11-.06(92) Subpart OOOO | Subpart OOOO[31] | See Footnote |
| 335-3-11-.06(93) Subpart PPPP | Subpart PPPP[32] | See Footnote |
| 335-3-11-.06(94) Subpart QQQQ | Subpart QQQQ[33] | See Footnote |
| 335-3-11-.06(95) Subpart RRRR | Subpart RRRR[34] | See Footnote |
| 335-3-11-.06(96) Subpart SSSS | Subpart SSSS[35] | See Footnote |
| 335-3-11-.06(97) Reserved | Reserved | |

required in this subpart. (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[30] The following are not delegable: (1) The authority under §63.6(g) to approve alternatives to the emission limits in §63.2983 and operating limits in §63.2984. (2) The authority under §63.7(e)(2)(ii) and (f) to approve of major alternatives (as defined in §63.90) to the test methods in §63.2993. (3) The authority under §63.8(f) to approve major alternatives (as defined in §63.90) to the monitoring requirements in §§63.2996 and 63.2997. (4) The authority under §63.10(f) to approve major alternatives (as defined in §63.90) to recordkeeping, notification, and reporting requirements in §§63.2998 through 63.3000.

[31] The following are not delegable: (1) Approval of alternatives to the work practice standards in §63.4293 under §63.6(g). (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90. (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in §63.90. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

[32] The following are not delegable: (1) Approval of alternatives to the requirements in §§63.4481 through 4483 and §§63.4490 through 4493. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90. (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

[33] The following are not delegable: (1) Approval of alternatives to the work practice standards under §63.4693. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90. (3) Approval of major alternatives

to monitoring under §63.8(f) and as defined in §63.90. (4) Approval of major changes to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

[34] The following are not delegable: (1) Approval of alternatives to the work practice standards in §63.4893 under §63.6(g). (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), and as defined in §63.90. (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

[35] The following are not delegable: (1) Approval of alternatives to the emission limitation in §63.5120. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.5160. (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.5150. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §§63.5180 and 63.5190.

| ADEM Chapter 335-3-11 | 40 CFR Part 63 | Exceptions |
|---|---|---|
| 335-3-11-.06(98) Reserved | Reserved | |
| 335-3-11-.06(99) Subpart VVVV | Subpart VVVV[36] | §63.5776(b)<br>§63.5728<br>§63.5731(a)<br>§63.5734<br>§63.5740(a)<br>§63.5743<br>§63.5746(g)<br>See Footnote |
| 335-3-11-.06(100) Subpart WWWW | Subpart WWWW | §63.5930(c) |
| 335-3-11-.06(101) Subpart XXXX | Subpart XXXX | §63.6014(c) |
| 335-3-11-.06(102) Subpart YYYY | Subpart YYYY | §63.6170(c) |
| 335-3-11-.06(103) Subpart ZZZZ | Subpart ZZZZ | §63.6670(c) |
| 335-3-11-.06(104) Subpart AAAAA | Subpart AAAAA | §63.7141(c) |
| 335-3-11-.06(105) Subpart BBBBB | Subpart BBBBB[37] | See Footnote |
| 335-3-11-.06(106) Subpart CCCCC | Subpart CCCCC[38] | See Footnote |
| 335-3-11-.06(107) Subpart DDDDD | Subpart DDDDD | §63.7570(b) |
| 335-3-11-.06(108) Subpart EEEEE S | Subpart EEEEE | §63.7761(c) |
| 335-3-11-.06(109) Subpart FFFFF | Subpart FFFFF | §63.7851(c) |
| 335-3-11-.06(110) Subpart GGGGG | Subpart GGGGG | §63.7956(c) |
| 335-3-11-.06(111) Subpart HHHHH | Subpart HHHHH | §63.8100(b) |
| 335-3-11-.06(112) Subpart IIIII | Subpart IIIII[39] | §63.8264(c)(1)-(5) |
| 335-3-11-.06(113) Subpart JJJJJ | Subpart JJJJJ | §63.8510(c) |
| 335-3-11-.06(114) Subpart KKKKK | Subpart KKKKK | §63.8660(c) |
| 335-3-11-.06(115) Subpart LLLLL | Subpart LLLLL | §63.8697(b) |
| 335-3-11-.06(116) Reserved | | |
| 335-3-11-.06(117) Subpart NNNNN | Subpart NNNNN | §63.9070(c) |

335-3-11-.06(118)
Reserved

[36] The following are also not delegable: Pursuant to §63.7(e)(2)(ii) and (f), the authority to approve alternatives to the test methods in §§63.5719(b), 63.5719(c), 63.5725(d)(1), and 63.5758; pursuant to §63.8(f), the authority to approve major alternatives to the monitoring requirements in §63.5725; pursuant to §63.10(f), the authority to approve major alternatives to the reporting and recordkeeping requirements listed in §§63.5764, 63.5767, and 63.5770.

[37] The following are not delegable: (1) Approval of alternatives to the non-opacity emission limitations in §63.7184 under §63.6(g). (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90. (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and defined in §63.90.

[38] The following are not delegable: (1) Approval of alternatives to work practice standards for fugitive pushing emissions in §63.7291(a) for a by-product coke oven battery with vertical flues, fugitive pushing emissions in §63.7292(a) for a by-product coke oven battery with horizontal flues, fugitive pushing emissions in §63.7293 for a non-recovery coke oven battery, soaking for a by-product coke oven battery in §63.7294(a), and quenching for a coke oven battery in §63.7295(b) under §63.6(g). (2) Approval of alternatives opacity emission limitations for a by-product coke oven battery under §63.6(h)(9). (3) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90, except for alternative procedures in §63.7334(a)(7). (4) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90. (5) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90. (6) Approval of the work practice plan for by-product coke oven batteries with horizontal flues submitted under §63.7292(a)(1).

[39] The following are not delegable: (1) Approval of alternatives under §63.6(g) to the non-opacity emission limitations in §63.8190 and work practice standards in §63.8192. (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90. (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

| ADEM Chapter 335-3-11 | 40 CFR Part 63 | Exceptions |
|---|---|---|
| 335-3-11-.06(119) Subpart PPPPP | Subpart PPPPP | §63.9370(c) |
| 335-3-11-.06(120) Subpart QQQQQ | Subpart QQQQQ[40] | |
| 335-3-11-.06(121) Subpart RRRRR | Subpart RRRRR | §63.9651(c) |
| 335-3-11-.06(122) Reserved | | |
| 335-3-11-.06(123) Subpart TTTTT | Subpart TTTTT[41] | See Footnote |
| 335-3-11-.06(124) Subpart UUUUU | Subpart UUUUU | §63.10041(b) |
| 335-3-11-.06(125) Reserved | | |
| 335-3-11-.06(126) Reserved | | |
| 335-3-11-.06(127) Reserved | | |
| 335-3-11-.06(128) Subpart YYYYY | Subpart YYYYY | §63.10691(c)(1)-(6) |
| 335-3-11-.06(129) Subpart ZZZZZ | Subpart ZZZZZ | §63.10905(c) |
| 335-3-11-.06(130) Reserved | | |
| 335-3-11-.06(131) Reserved | | |
| 335-3-11-.06(132) Reserved | | |
| 335-3-11-.06(133) Subpart DDDDDD | Subpart DDDDDD | |
| 335-3-11-.06(134) Subpart EEEEEE | Subpart EEEEEE[42] | See Footnote |
| 335-3-11-.06(135) Subpart FFFFFF | Subpart FFFFFF[43] | See Footnote |
| 335-3-11-.06(136) Subpart GGGGGG | Subpart GGGGGG[44] | See Footnote |
| 335-3-11-.06(137) Reserved | | |
| 335-3-11-.06(138) Reserved | | |
| 335-3-11-.06(139) Reserved | | |
| 335-3-11-.06(140) Reserved | | |
| 335-3-11-.06(141) Subpart LLLLLL | Subpart LLLLLL | §63.11399(b)(1)-(4) |
| 335-3-11-.06(142) Subpart MMMMMM | Subpart MMMMMM | §63.11406(b)(1)-(4) |

335-3-11-.06(143)
Reserved

40 The following are not delegable: (1) Approval of alternatives to the emission limitations in §63.9500(a) and (b) under §63.6(g). (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90. (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

41 The following are not delegable: (1) Approval of alternatives to the non-opacity emission limitations in §63.9890 and work practice standards in §63.9891 under §63.6(g). (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90. (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90. (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

42 The following are not delegable: (1) Approval of an alternative non-opacity emissions standard under §63.6(g). (2) Approval of an alternative opacity emissions standard under §63.6(h)(9). (3) Approval of a major change to a test method under §63.7(e)(2)(ii) and (f). A "major change to test method" is defined in §63.90. (4)

Approval of a major change to monitoring under §63.8(f). A "major change to monitoring" is defined in §63.90. (5) Approval of a major change to recordkeeping/ reporting under §63.10(f). A "major change to recordkeeping/reporting" is defined in §63.90.

43 The following are not delegable: (1) Approval of an alternative non-opacity emissions standard under §63.6(g). (2) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f). A "major change to test method" is defined in §63.90. (3) Approval of a major change to monitoring under §63.8(f). A "major change to monitoring" is defined in §63.90. (4) Approval of a major change to recordkeeping/ reporting under §63.10(f). A "major change to recordkeeping/reporting" is defined in §63.90.

44 For primary zinc production facilities, the following are not delegable: (1) Approval of an alternative non-opacity emissions standard under §63.6(g). (2) Approval of an alternative opacity emissions standard under §63.6(h)(9). (3) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f). A "major change to test method" is defined in §63.90. (4) Approval of a major change to monitoring under §63.8(f). A "major change to monitoring" is defined in §63.90. (5) Approval of a major change to recordkeeping/reporting under §63.10(f). A "major change to recordkeeping/ reporting" is defined in §63.90. For primary beryllium manufacturing facilities, the following are not delegable: (1) Approval of an alternative non-opacity emissions standard under 40 CFR 61.12(d). (2) Approval of a major change to test methods under 40 CFR 61.13(h). A "major change to test method" is defined in §63.90. (3) Approval of a major change to monitoring under 40 CFR 61.14(g). A "major change to monitoring" is defined in §63.90. (4) Approval of a major change to recordkeeping/reporting under 40 CFR 61.10. A "major change to recordkeeping/reporting" is defined in §63.90.

| **ADEM Chapter 335-3-11** | **40 CFR Part 63** | **Exceptions** |
|---|---|---|
| 335-3-11-.06(144) Subpart OOOOOO | Subpart OOOOOO | §63.11420(b)(1)-(4) |
| 335-3-11-.06(145) Subpart PPPPPP | Subpart PPPPPP | §63.11427(b)(1)-(5) |
| 335-3-11-.06(146) Subpart QQQQQQ | Subpart QQQQQQ[45] | See Footnote |
| 335-3-11-.06(147) Reserved | Reserved | |
| 335-3-11-.06(148) Reserved | Reserved | |
| 335-3-11-.06(149) Subpart TTTTTT | Subpart TTTTTT | §63.11473(c)(1)-(4) |
| 335-3-11-.06(150) Reserved | Reserved | |
| 335-3-11-.06(151) Subpart VVVVVV | Subpart VVVVVV | §63.11503(b)(1)-(4) |
| 335-3-11-.06(152) Reserved | Reserved | |
| 335-3-11-.06(153) Reserved | Reserved | |
| 335-3-11-.06(154) Subpart YYYYYY | Subpart YYYYYY | §63.11531(c)(1)-(5) |

| | | |
|---|---|---|
| 335-3-11-.06(155) Subpart ZZZZZZ | Subpart ZZZZZZ | §63.11557(c)(1)-(5) |
| 335-3-11-.06(156) Subpart AAAAAAA | Subpart AAAAAAA | §63.11567(b) |
| 335-3-11-.06(157) Reserved | Reserved | |
| 335-3-11-.06(158) Subpart CCCCCCC | Subpart CCCCCCC[46] | See Footnote |
| 335-3-11-.06(159) Subpart DDDDDDD | Subpart DDDDDDD[47] | See Footnote |
| 335-3-11-.06(160) Reserved | Reserved | |
| 335-3-11-.06(161) Reserved | Reserved | |
| 335-3-11-.06(162) Reserved | Reserved | |
| 335-3-11-.06(163) Subpart HHHHHHH | H Subpart HHHHHHH | §63.12000(b) |
| 335-3-11-.07(1) Appendix A | Appendix A | Sect. 2, Method 303 |
| 335-3-11-.07(2) Appendix B | Appendix B | |
| 335-3-11-.07(3) Appendix C | Appendix C | |
| 335-3-11-.07(4) Appendix D | Appendix D | |
| 335-3-11-.07(5) Appendix E | Appendix E | |

| **ADEM Chapter 335-3-11A** | **40 CFR Part 65** | **Exceptions** |
|---|---|---|
| 335-3-11A-.02(1) Subpart A | Subpart A | §65.8<br>§65.46<br>§65.102<br>§65.156(b)(1)(ii)<br>§65.158(a)(2)(ii) |
| 335-3-11A-.02(2) Reserved | | Reserved |
| 335-3-11A-.02(3) Subpart C | | Subpart C |
| 335-3-11A-.02(4) Subpart D | | Subpart D |
| 335-3-11A-.02(5) Subpart E | | Subpart E |
| 335-3-11A-.02(6) Subpart F | | Subpart F |
| 335-3-11A-.02(7) Subpart G | | Subpart G |

[45] The following are not delegable: (1) Approval of an alternative nonopacity emissions standard under §63.6(g). (2) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f). A "major change to test method" is defined in §63.90 (3) Approval of a major change to monitoring under §63.8(f). A "major change to monitoring" is defined in §63.90. (4) Approval of a major change to recordkeeping/ reporting under §63.10(f). A "major change to recordkeeping/reporting" is defined in §63.90.

[46] The following are not delegable: (1) Approval of an alternative nonopacity emissions standard under §63.6(g). (2) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f). A "major change to test method" is defined in §63.90 (3) Approval of a major change to monitoring under §63.8(f). A "major change to monitoring" is defined in §63.90. (4) Approval of a major change to recordkeeping/ reporting under §63.10(f). A "major change to recordkeeping/reporting" is defined in §63.90.

[47] The following are not delegable: (1) Approval of an alternative nonopacity emissions standard under §63.6(g). (2) Approval of an alternative opacity emissions standard under §63.6(h)(9). (3) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f). A "major change to test method" is defined in §63.90. (4) Approval of a major change to monitoring under §63.8(f). A "major change to monitoring" is defined in §63.90. (5) Approval of a major change to recordkeeping and reporting under § 63.10(f). A "major change to recordkeeping/reporting" is defined in §63.90.

**Author:** Department of Environmental Management

**Statutory Authority:** Code of Ala. 1975, §§22-28-10, 22-28-11, 22-28-14, 22-28-18, 22-28-20, 22-28-22, 22-22A-5, 22-22A-6, 22-22A-8.

**History:** **Amended:** Filed October 19, 1995; effective November 23, 1995. **Amended:** Filed August 21, 1997; effective September 25, 1997. **Amended:** Filed February 20, 1998; effective March 27, 1998. **Amended:** Filed October 15, 1998; effective November 19, 1998. **Amended:** Filed June 10, 1999; effective July 15, 1999. **Amended:** Filed December 9, 1999; effective January 13, 2000. **Amended:** Filed August 3, 2000; effective September 7, 2000. **Amended:** Filed February 7, 2002; effective March 14, 2002. **Amended:** Filed August 29, 2002; effective October 3, 2002. **Amended:** Filed February 27, 2003; effective April 3, 2003. **Amended:** Filed August 28, 2003; effective October 2, 2003. **Amended:** Filed February 15, 2005; effective March 22, 2005. **Amended:** Filed November 7, 2005; effective December 12, 2005. **Amended:** Filed June 6, 2006; effective July 11, 2006. **Amended:** Filed July 1, 2008; effective August 5, 2008. **Amended:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Filed February 23, 2010; effective March 30, 2010. **Amended:** Filed April 18, 2011; effective May 23, 2011. **Amended:** Filed April 24, 2012; effective May 29, 2012. **Amended:** Filed December 18, 2012; effective January 22, 2013. **Amended:** Filed April 23, 2013; effective May 28, 2013. **Amended:** Filed August 20, 2013; effective September 24, 2013.

**Amended:** Filed October 20, 2015; effective November 24, 2015.
**Amended:** Filed April 25, 2017; effective June 9, 2017.
**Amended:** Published October 29, 2021; effective December 13, 2021. **Amended:** Published December 29, 2023; effective February 12, 2024. **Amended:** Published ; effective .

**Attachment 4**

**ENVIRONMENTAL MANAGEMENT COMMISSION**
**RESOLUTION**

WHEREAS, the Alabama Department of Environmental Management gave notice of a public hearing on the proposed revisions to ADEM Admin. Code 335-13 of the Department's Land Division – Solid Waste Program Rules in accordance with Ala. Code § 22-22A-8 (2006 Rplc. Vol.) and Ala. Code § 41-22-4 (2000 Rplc. Vol.); and

WHEREAS, a public hearing was held before a representative of the Alabama Department of Environmental Management designated by the Environmental Management Commission for the purpose of receiving data, views and arguments on the amendment of such proposed rules; and

WHEREAS, the Alabama Department of Environmental Management has reviewed the oral and written submissions introduced into the hearing record, and has prepared a concise statement of the principal reasons for and against the adoption of the proposed rules incorporating therein its reasons for the adoption of certain revisions to the proposed rules in response to oral and written submissions, such revisions, where appropriate, having been incorporated into the proposed rules attached hereto; and

WHEREAS, the Environmental Management Commission has considered fully all oral and written submissions respecting the proposed amendments and the Reconciliation Statement prepared by the Alabama Department of Environmental Management.

NOW THEREFORE, pursuant to Ala. Code. §§ 22-27-2, 22-27-7, 22-27-9, 22-27-12 (2006 Rplc. Vol.), and Ala. Code. § 41-22-5 (2000 Rplc. Vol.), as duly appointed members of the Environmental Management Commission, we do hereby adopt and promulgate these revisions to division 335-13 [rules 335-13-9-.02 State Solid Waste Management Plan (Amend); 335-13-10 Alabama Recycling Fund Grants Program (Amend); 335-13-13-.02 Statewide Solid Waste Reduction Goal (Amend);

335-13-9-Appendix A Solid Waste Management Plan (New)] of the Department's Land Division – Solid Waste Program rules, administrative code attached hereto, to become effective forty-five days, unless otherwise indicated, after filing with the Alabama Legislative Services Agency.

ADEM Admin. Code division 335-13 – Solid Waste Program

IN WITNESS WHEREOF, we have affixed our signatures below on this 9th day of August, 2024.

APPROVED:

Mary J. Merritt, Commissioner

H. Lanier Brown, II, Commissioner

J. Patrick Tucker, Commissioner

Kevin McKinstry, Commissioner

John (Jay) H. Masingill, III, Commissioner

Ruby L. Perry, Commissioner

A. Frank McFadden, Commissioner

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DISAPPROVED:

Mary J. Merritt, Commissioner

H. Lanier Brown, II, Commissioner

J. Patrick Tucker, Commissioner

Kevin McKinstry, Commissioner

John (Jay) H. Masingill, III, Commissioner

Ruby L. Perry, Commissioner

A. Frank McFadden, Commissioner

ABSTAINED:

Mary J. Merritt, Commissioner

H. Lanier Brown, II, Commissioner

J. Patrick Tucker, Commissioner

Kevin McKinstry, Commissioner

John (Jay) H. Masingill, III, Commissioner

Ruby L. Perry, Commissioner

A. Frank McFadden, Commissioner

**This is to certify that this Resolution is a true and accurate account of the actions taken by the Environmental Management Commission on this 9th day of August 2024.**

**A. Frank McFadden, Chair**
**Environmental Management Commission**
**Certified this 9th day of August 2024**

**ATTACHMENT A**

**335-13-9-.02 State Solid Waste Management Plan.**
Pursuant to Code of Ala. 1975, §22-27-45(4), the Alabama Solid Waste Management Plan, dated ~~May 2008~~April 2024, and included in Appendix A of these regulations, is hereby adopted to the extent allowed by law.
**Author:** Phillip D. Davis. Jason Wilson, Blake B. Pruitt
**Statutory Authority:** Code of Ala. 1975, §§22-22A-8(d); 22-27-40 et seq.
**History:** **New Rule:** Filed February 5, 2002; effective March 12, 2002. **Amended:** Filed August 26, 2008; effective; September 30, 2008. **Amended:** Published ; effective .

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT LAND DIVISION - SOLID WASTE PROGRAM ADMINISTRATIVE CODE**

**CHAPTER 335-13-10**
**ALABAMA RECYCLING FUND GRANTS PROGRAM**

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**335-13-10-.01 Purpose.**

This regulation is to establish the procedures for the disbursement of recycling grants to local governments, authorities, and nonprofit organizations for use in developing, implementing, and enhancing local recycling, reuse and waste minimization projects and programs.
**Author:** Phillip D. Davis
**Statutory Authority:** Code of ~~Ala.~~Alabama 1975, §§22-27-12, 22-27-17.
**History:** **New Rule:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Published ; effective .

**335-13-10-.02 Definitions.**

When used in ~~this Chapter~~335-13-10, the following terms have the meaning given below:

(a) "Advance funds" means monies approved for known costs to the applicant within the grant period before the semi-annual report~~before the semi-annual report is due~~.

(b) "Authority" means any quasi-governmental agency, board, or authority created by agreement on behalf of one local government or between two or more local governments for solid waste management or recycling purposes.

(c) "Eligibility" means the standard or criteria by which a local government or applicant qualifies for grant funds, as determined by the Department. These standards shall include, but are not limited to, completeness of the grant application, plans for recycling, reuse and waste minimization projects, current status of recycling and waste minimization efforts underway within the applicant's jurisdiction, and consistency with local solid waste management planning.

(d) "Grant agreement" means the binding contract between the Department and the applicant.

(e) "Grant application" means the initial request form for a grant from the Department.

(f) "Grant limited equipment" means any property or equipment greater than $5,000 cost that is purchased in whole or in part with grant funds and which must be used solely for recycling purposes per the grant agreement.

(g) "Grant period" means twelve months ~~from the time the grant agreement is properly executed by all parties~~as outlined in the properly executed grant agreement.

~~(g)~~

(h) "Local government" means any municipality, county, district or authority or any agency thereof which has responsibility for and the authority to assure the proper management of solid waste within its jurisdiction, including but not limited to, its collection, disposal, treatment or recycling.

~~(h)~~

(i) "Nonprofit organization" means a corporation or association where no part of the income or profit of which is distributable to its members, directors or officers, and is operated pursuant to the requirements of Code of Alabama, 1975, §§10-3A-1 to 10-3A-225.

~~(i)~~

(j) "Official" or "officer" means either the principal executive officer or ranking elected official of a governmental body, authority, or non-profit organization.

~~(j)~~

(k) "Program" means the grant program established and administered by the Department under the authority of Code of Alabama, 1975, §22-27-17.

~~(k)~~

(l) "Temporary operating subsidy" means the use of grant funds for operational expenses of a solid waste reduction program or a recycling program, including personnel costs, training costs, rental of facilities, and other similar expenses approved by the Department.

**Author:** Phillip D. Davis. Jason Wilson, Blake B. Pruitt.
**Statutory Authority:** Code of ~~Ala.~~Alabama 1975, §§22-27-12, 22-27-17.
**History:** **New Rule:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Published ; effective .

**335-13-10-.03 Grant Application Requirements.**

(1) Requests for funding shall be submitted to the Department electronically on application forms specified by the Department.

(2) Applications for grants from the Program must be submitted electronically to the Department no later than March 1, or the next business day if March 1 falls on a weekend, of each year to be considered for funding from that fiscal year's Fund allocation.

(3) Applications received from local governments, authorities, or nonprofit organizations which have not completed their

obligations under all previously awarded funds may be denied by the Department.

(4) Applications from local governments, authorities, or nonprofit organizations which have not met their obligations under the terms of any previous grant agreements or accounted for any unused grant funds from a previous grant awarded under this rule during the previous 36 months shall be denied by the Department.

(5) All recycling projects included in an application must be consistent with the description of current or planned recycling programs included in the approved local solid waste management plan, which must include a focus on recycling in accordance with Code of Alabama 1989, § 22-27-47(b)(4), of the appropriate local jurisdiction. Jurisdictions without an approved local solid waste management plan or without language in an approved solid waste management plan consistent with the grant application may be awarded conditional approval of the grant application pending the Department's approval of a modification to an existing solid waste management plan or the approval of a new solid waste management plan for the jurisdiction.

(a) Where proposed recycling projects would not be consistent with the approved local plan, the application shall include measures to revise the local plan, as necessary. Such revisions must be completed prior to the Department's approval of disbursement of grant funds for the proposed recycling projects.

1. The costs associated with the revisions of local solid waste management plans as required by subparagraph (a) are eligible for inclusion in an application for grant funds.

2. Only grant funds associated with the costs of amending the local solid waste management plan may be disbursed prior to departmental approval of the revised local solid waste management plan. The balance of grant funds in the award shall be disbursed in accordance with Rule 335-13-10-.04 following final departmental approval of the revised local solid waste management plan.

(b) Applications for proposed recycling projects that would be inconsistent with the recycling programs included in the existing local solid waste management plan or plans that do not include a proposal to amend the local plan(s) in accordance with subparagraph (a) shall be denied by the Department.

(c) Any amendments to the local solid waste management plan necessary to comply with subparagraph (5) shall apply only to the jurisdiction proposing the modifications and not to any other local jurisdictions included under the local solid waste management plan.

(6) Applicants may submit a proposal for a multi-year grant plan. This proposal should include details of the grant plan, including but not limited to, budgetary information, project costs, justifications, timelines and key milestones, and overall project goal(s). This proposal shall be submitted to the Department no later than September 1st for the upcoming grant cycle.

(7) Any amendments or modifications to the grant agreement must be submitted by the listed responsible official and be approved by the Department in writing before becoming effective.

**Author:** Phillip D. Davis. Jason Wilson, Blake B. Pruitt.
**Statutory Authority:** Code of ~~Ala.~~Alabama 1975, §22-27-17(c)(1) et seq..
**History:** **New Rule:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Published ; effective .

**335-13-10-.04 Disbursement Of Funds.**

(1) Upon review and approval of the application, the Department shall determine the exact amount of the grant award and prepare a grant agreement.

(2) The grant agreement will be forwarded to the applicant to be signed by a local government official, authority official or officer of the nonprofit organization.

(3) The applicant may request advance funds through the application process; however, known needs must be documented before advance funds can be approved. Following approval by the Department, the advance funds will be forwarded to the applicant.

(4) Any local government, authority, or non-profit organization receiving grant funds will be reimbursed for actual expenses incurred from the implementation of the approved project or program. Each semi-annual report shall report on the status of the recycling project or program to be funded by the grant, and shall include information necessary for review by the Department for reimbursement of actual costs. Each report must be submitted fifteen (15) days from the end of the previous semester. Semesters shall run October 1st through March 31st, and April 1st through September 30th of each year.

(5) The Director, or his designee, may terminate a grant award in whole or in part and demand refund of grant funds when there is substantial non-compliance with the terms of the award or these rules, a determination made by the Department that the grant was obtained by fraudulent means, ~~found~~a finding that grant monies have been used for non-allowable costs, or a determination made by the Department that gross abuse or corrupt practices have been used in the administration of the grant project by the recipient.

(a) The Director, or his designee, shall give written notice to the recipient (via certified mail, return receipt requested) of its intent to terminate a Fund grant, in whole or in part, at least 30 days prior to the intended date of termination.

(b) The Director, or his designee, shall afford the grant recipient an opportunity for consultation prior to any termination. After such opportunity for consultation, the Department may, in writing (via certified mail, return receipt requested), terminate the Fund grant in whole or in part.

(c) In event of such termination, the local government, authority, or non-profit organization shall be ineligible to make application for further participation in the grant program until the grantee complies with the terms of the grant award or these rules.

(6) The amount of each grant awarded under this Chapter shall be at the sole discretion of the Director, or his designee~~,~~; however no single grant award may exceed 20% of the total funds appropriated to the Alabama Recycling Fund during the previous fiscal year.

~~(a) For applications filed on or before March 1, 2009, no single grant award may exceed $350,000.~~

~~(b)~~ These grant award limitations may be waived by the Director if the total amount of grant funds requested by eligible ~~applications~~applicants for a fiscal year does not exceed the funds appropriated to the Alabama Recycling Fund during the previous fiscal year, or if there are less than five total grant applications submitted to the Department.

(7) Grant funds not awarded due to insufficient requests or applications, shall remain in the Alabama Recycling Fund and shall be available for award in future grant years.

(8) Eligible grant applications will be divided into two categories for the purpose of awarding funds.

(a) Category 1 applications shall be those applications submitted by a jurisdiction or jurisdictions for projects or programs which will serve geographic areas containing more than 40,000 households, based on data from the most recent U.S. census or equivalent.

(b) Category 2 applications shall be those applications submitted by a jurisdiction or jurisdictions for projects or programs which

will serve geographic areas with fewer than 40,000 households, as determined by the most recent U.S. census or equivalent.

(c) The Department shall award no less than 60 % of the total grant funds available during a fiscal year to Category 1 applications. Provided, however, ~~for grant application years beginning on March 1, 2012, and thereafter,~~ at least 20 percent of the total grant funds must be awarded to Category 2 applications, if sufficient applications for one or both categories are received and approved by the Department. If sufficient applications are not received, the Director may, for a given grant year, adjust Category 1 and Category 2 thresholds to meet the no less than 60% and at least 20% of the total grant funds awarded.

**Author:** Phillip D. Davis. Jason Wilson, Blake B. Pruitt.
**Statutory Authority:** Code of ~~Ala.~~ Alabama.1975, §§22-27-12, 22-27-17.
**History:** **New Rule:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Published ; effective .

**335-13-10-.05 Grant Recordkeeping.**

(1) Each recipient of grant funds shall maintain accurate records of all expenditures associated with the recycling project funded by grants awarded pursuant to this Chapter, and shall assure that these records are available for inspection and/or audit upon request by the Department. Records shall be kept for a period of at least five years from the execution of the grant agreement.

(2) Recordkeeping information as required by the Department shall be listed in the grant agreement and shall be included with each semi-annual report submitted by the recipient. Such requirements established by the Department shall not be inconsistent with accounting and record-keeping methods such entities may be required to follow by the Alabama Department of Examiners of Public Accounts.

**Author:** Phillip D. Davis
**Statutory Authority:** Code of ~~Ala.~~Alabama 1975, §§22-27-12, 22-27-17.
**History:** **New Rule:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Published ; effective .

**335-13-10-.06 Specific Recycling Grant Requirements.**

(1) Upon receipt and approval of the grant application, the Department will determine the amount of the grant award and prepare the grant agreement. Payment of grant awards will be contingent upon receipt and approval of the grant agreement.

(2) All local governments that choose to apply jointly shall enter into a binding agreement that designates a lead applicant and describes how the funds will be disbursed and used. Any agency or authority created by regional agreement for solid waste management or recycling purposes is eligible to apply for grants. The applicant shall submit all required documents on behalf of the local governments which are party to the agreement. Such applications and submittals shall be equivalent to those required if each local government were applying individually.

(3) Applicants shall provide the Department with information on any previous state or federal grants received for the purpose of solid waste management or recycling received by the jurisdiction during the previous 36 months. This information shall include the grant amount and the grant period, and other information or data as set forth in the application forms.

(4) Grant limited equipment must be properly maintained, managed, and used solely for recycling purposes for at least five (5) years from the date of the executed grant agreement.

(a) A local government, authority, or non-profit organization that ceases recycling activities, dissolves, or otherwise discontinues the use of grant limited equipment must notify the Department within thirty (30) days of the decision to cease, dissolve, or discontinue use after operations cease. A plan for appropriate dispensation of the grant limited equipment shall be submitted to the Department for review.

(b) Upon approval by the Director, or his designee, possession and ownership of grant limited equipment may be transferred, and not sold, to another local government, authority, or non-profit organization that meets the grant eligibility requirements listed in 335-13-10-.07 and serves the same or similar jurisdiction or jurisdictions covered by the proposed project or program of the original grant recipient that purchased the equipment.

(c) If grant limited equipment is sold within five (5) years of the executed grant agreement, such sale is subject to approval of the sale, including sale price, by the Department. All those funds generated from the sale must be returned to the Alabama Recycling Fund.

**Author:** Phillip D. Davis. Jason Wilson, Blake B. Pruitt.
**Statutory Authority:** Code of ~~Ala.~~Alabama 1975, §§22-27-12, 22-27-17.
**History:** **New Rule:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Published ; effective .

**335-13-10-.07 Eligibility Requirements.**

(1) Existing and new recycling programs must be registered as determined by the Department.

(2) In order to be considered for a grant award under the Program, all applications shall include the following information for the area to be serviced under the terms of the requested grant:

(a) A description of the recycling or waste reduction/ minimization project for which grant funds are requested, including any business or accounting plans for such projects;

;

(b) An estimate of the quantity, source and type of materials to be collected and recycled under the proposed project or program, including an explanation of the methods used to estimate this

quantity. The quantity shall include the volume of any out-of-state waste coming into the service area, but records of out-of-state waste volume shall be shown as a separate item on each semi-annual report;

_;

(c) A description of all existing or proposed recycling facilities, collection centers or other related service centers located within the jurisdiction or jurisdictions covered by the proposed project or program. If the application is for a multi-jurisdictional or regional program, a listing of recycling facilities and services operating within the boundaries of the responsible regional planning and development commission, including ownership, capacity, type of facility and service area of such facilities shall also be included;

_

(d) A statement that the grant is needed to achieve or surpass both the recycling or waste reduction/minimization efforts set forth in the approved local solid waste management plan and the purpose and goals of the Solid Wastes and Recyclable Materials Management Act of 2008. This statement shall include an explanation of how any existing private and public sector recycling programs and efforts will be incorporated into the proposed recycling project or program;

_

(e) A summary of all costs incurred, or to be incurred, in planning and implementing the recycling and waste reduction/ minimization projects or programs;

_

(f) A copy of any regional agreement into which local governments have entered or will enter to accomplish the purposes of this rule;

_

(g) Any written contracts, written bids or written agreements which were entered into to develop and implement the proposed project or program;

_;

(h) The description of objectives that will be utilized to evaluate any education or public outreach component of the

proposed project or program, and an explanation of how the educational component will directly promote the use of existing or planned local recycling or waste reduction/minimization projects; and,

(i) A description of the methods to be used in evaluating the success of the recycling project or program. Progress reports and methods used to measure the progress shall be included in the semi-annual reports.

~~(2)~~

(3) The grant application shall include a recycling plan for the population of the area included in the application containing at least the following information:

(a) An explanation of the manner in which the proposed recycling project or program will be implemented;

;

(b) A timetable for the continued development and implementation of the proposed recycling project or program;

(c) The number of households (not population) to be covered by the proposed recycling project or program, as determined by the most recent U.S. census;

;

(d) The estimated percentage of the population participating in various types of recycling activities, including the estimated success rates, perceived reasons for the estimated success or failure, and the public and private sector recycling activities which are ongoing and most successful;

;

(e) The estimated percent reduction each year in solid waste disposed at solid waste disposal facilities as a result of any existing public and private recycling programs and an estimate of avoided disposal costs due to recycling that occurs as a result of the proposed recycling project or program;

(f) An estimate of the number of households (not population) within the proposed program area served by solid waste collection services, an identification and description facilities where solid waste is being disposed or processed, and the anticipated effect of the proposed recycling project or program on such services and facilities;

(g) A description and evaluation of recyclable materials that are being recycled including, but not limited to, glass, aluminum, steel, other metallic materials, office paper, yard waste, newsprint, corrugated paper/cardboard, plastics, white goods, and tires;

(h) The currently available and anticipated markets or uses for materials collected through the proposed recycling project or program;

(i) The estimated costs of, and revenue from, operating and maintaining existing and proposed recycling projects or programs. This does not include specific costs and revenues from privately-operated recycling programs, but a summary of such costs and revenues shall be required if the applicant intends to provide funding for such programs;

(j) A description of any recycling activities planned or existing prior to the effective date of the grant regulations;

(k) If the application includes programs managing "special wastes" it should include a description of how all special wastes, as defined in ~~this Division, including but not limited to industrial wastes, as defined in this Division~~335-13, including but not limited to industrial wastes, as defined in 335-13, will be managed.

**Author:** Phillip D. Davis. Jason Wilson, Blake B. Pruitt.

**Statutory Authority:** Code of ~~Ala.~~Alabama 1975, §§22-27-12, 22-27-17.

**History:** **New Rule:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Published ; effective .

**335-13-10-.08 Grant Award Criteria.**

Grants awarded under ~~this Chapter shall be made in accordance with the requirements of this part~~335-13-10 shall be made in accordance with the requirements of 335-13-10-.08 and shall be used to develop, implement, enhance and promote recycling and beneficial re-use projects and programs, as necessary to meet the requirements and objectives of the Solid Wastes and Recyclable Materials Management Act of 2008. Funding awarded for this purpose shall meet the following:

(a) Recycling grants awarded under the Program shall be used to provide funding for recycling program costs, which may include equipment purchases, facility construction and other such costs approved by the Department, as part of the grant agreement.

(b) Where approved by the Department, recycling grants may be used for temporary operating subsidies, provided that the applicant demonstrates that such a use is necessary for the success of the program, and shows how the subsidy will benefit the program. Within one (1) year of the award the applicant shall provide reasonable assurances that the program will be able to operate without a subsidy from this grant program.

(c) For recycling projects or programs involving multiple governmental jurisdictions within a region, recycling grants may also be used to assist local governments, authorities, or non-profit organizations in recycling paper, glass, plastic, construction and demolition debris, white goods, and metals and in composting and recycling organic materials, where such assistance is demonstrated to be necessary to make the regional effort viable. In such instances, the applicant shall provide a regional business plan for marketing recyclable materials.

(d) In conjunction with projects or activities described in subparagraphs (a), (b), and (c) of ~~Rule~~ 335-13-10-.08, recycling grants awarded under the Program may be used to promote recycling, solid waste volume reduction, waste minimization projects, and market development for recyclable materials,

provided that such efforts meet the requirements of ~~Rule~~ 335-13-10-.07.

(e) All existing public and private recycling infrastructure shall be used to the greatest extent possible when planning and implementing the recycling programs funded by grants awarded under this Chapter. Grant funds shall not be used for duplicating existing private and public recycling programs unless the applicant satisfactorily demonstrates to the Department that such existing programs cannot be integrated into the proposed recycling or waste reduction projects or programs.

(f) Local governments or authorities may contract with private entities for the administrative operation of activities outlined in the grant application, with pre-approval from the Department.

(g) Grant applications for projects to be implemented within jurisdictions without existing recycling programs shall be given priority status for award under the Fund, as will applications submitted jointly by multiple jurisdictions or authorities on behalf of multiple jurisdictions.

**Author:** Phillip D. Davis. Jason Wilson, Blake B. Pruitt.
**Statutory Authority:** Code of ~~Ala.~~Alabama 1975, §§22-27-12, 22-27-17.
**History:** **New Rule:** Filed December 15, 2008; effective January 19, 2009. **Amended:** Published ; effective .

**335-13-13-.02 Statewide Solid Waste Reduction Goal.**
There is hereby established a statewide solid waste reduction goal(G) of 40%. Attainment of this goal on an annual percentage basis shall be evaluated by comparing the statewide solid waste diversion rate of each year ($G_{year}$)tc the statewide solid waste reduction goal (G):

$$G \geq G_{year}$$

where $G_{year}$ is calculated by using the following formula:

$$G_{year} = \left(\frac{D}{D+W}\right) x100\%$$

where the amount of annual waste diverted from landfills (D) shall be calculated by the summation of all reported quantities of recovered materials in tons processed for recyclable materials (R), ~~scrap tires (S)~~materials utilized for energy recovery (E), and beneficial use materials (B) which are processed and diverted from landfills to end-use markets:

*[Removed image:]*

$$D = R + S + B$$

D=R+E+B

And divided by the summation of all annual waste diverted from landfills (D) and the total annual statewide solid waste accepted for disposal (W), which shall be determined in tons by data reported to the Department in accordance with 335-13-4-.22(2)(g) or 335-13-4-.23(2)(f) less any reported out of state waste accepted for disposal.

(a) Annually, the Department shall replicate this calculation for the previous calendar year.

(b) The calculated annual statewide solid waste diversion rate shall be posted on the Departmental internet website.

(c) The Department shall evaluate the percentage goal established in this rule on a triennial basis and, if warranted, shall revise the goal in order to promote increased diversion of recyclable materials, ~~scrap tires~~materials utilized for energy recovery, and beneficial use materials within the State.

(d) Any public or private entity involved in solid waste management within the State shall undertake measures to support the attainment of the statewide solid waste reduction goal, including but not limited to implementation of waste reduction and recycling programs through the approved local solid waste management plan, and the recordkeeping and reporting of the amounts of recycled or beneficially reused materials or ~~scrap~~

~~tires~~materials utilized for energy recovery, as required under the State Solid Waste Management Plan established in ADEM Administrative Code 335-13-9.

**Author:** Phillip D. Davis. Jason J. Wilson, Blake B. Pruitt.
**Statutory Authority:** Code of Alabama 1975, §§22-27-12, 22-27-15, 22-27-16.
**History:** **New Rule:** Filed October 20, 2009; effective November 24, 2009. **Amended:** Published ~~_____; effective _____~~August 30, 2024; effective October 14, 2024.

**335-13-9-Appendix A** **Solid Waste Management Plan.**

## EXECUTIVE SUMMARY

In accordance with the requirements of the Solid Wastes Disposal Act, Alabama Code § 22-27-45, (2006 Rplc. Vol.), the State Solid Waste Management Plan (Plan) is intended to provide information on the quantities of solid waste generated, disposed and recycled in the State, as well as provide an update regarding activities being implemented to manage these programs. Additionally, the Plan outlines a mechanism to be used in evaluating local solid waste management and recycling programs. The most recent information has been collected for the 2023 fiscal year.

## SECTION I
## BACKGROUND

In 1989, the Alabama State Legislature enacted Alabama Law 89-824 to amend the Solid Wastes Disposal Act. This Act is codified at Code of Alabama 1975, §§22- 27-40 through 48.1 and required several actions to be completed to address solid waste management in the State. One of these actions required the Alabama Department of Environmental Management (ADEM) to prepare an Alabama Solid Waste Management Plan. The Law required that the Plan be initially prepared in two phases. Phase 1 was completed in November 1989, and served as a guide to local governments in the development of their local solid waste management plans. Phase II was completed in April 1991, and refined previously gathered solid waste management data, as well as identified a number of recommended statutory improvements to the State's management of solid waste. The law also established the criteria that should be included in any amendment or periodic revision to the Plan. In 2002, the Alabama Environmental Management Commission (EMC) adopted these original two phases of the Solid Waste Management Plan into the ADEM solid waste regulations.

Another requirement of the amendments to the Act was that each of the State's regional planning and development commissions were to develop a regional solid waste management needs assessment to assist local governments in the development of their own solid waste management plans. These regional solid waste needs assessments are required to be annually evaluated and revised. The initial assessments were completed in 1989.

Another major requirement of the amendments was to require local governments to prepare and adopt local solid waste management plans. Criteria were established under which the local solid

waste management plans were to be developed. Each county was responsible for developing a solid waste management plan for its incorporated and unincorporated areas. However, municipalities were given the option to submit to the jurisdiction of the county plan, or to develop their own plan for solid waste management within their boundary. Similarly, counties were authorized to establish regional solid waste authorities through the development of joint solid waste management plans. A total of 80 plans (67 counties and 13 municipalities) were developed across the State and were initially submitted to ADEM in November 1990.

Coincidental with the adoption of the State plan into the regulations in 2002, the EMC required that revised regional solid waste needs assessments be prepared by the regional planning and development commissions and councils as required by the Act. The EMC established a regulatory deadline of November 2003 for submittal of these revised assessments. The regulations also required the development of revised local solid waste management plans by the governing body of each county or municipality with responsibility for overseeing solid waste management. The deadline to submit the revised plans to the Department was September 2004.

A key component of Phase II of the State Solid Waste Plan was the list of recommendations for improvements in the State's solid waste management system. Throughout the 1990's, the Department made repeated efforts to obtain legislative approval of a number of the recommendations included in Phase II of the Plan. Despite ADEM's efforts, only a portion of one of the recommendations listed in Phase II of the Plan was passed by the Alabama Legislature at that time (see Section VI. Scrap Tire Management Program).

However, in 2008, during the regular session, the Alabama Legislature passed the "Solid Wastes and Recyclable Materials Management Act". This act provided a comprehensive, statewide program for the effective management of solid wastes and recyclable materials by implementing a number of recommendations of the previous version of the State Solid Waste Management Plan. Specifically, the act established the Solid Waste Fund which funds the costs associated with the remediation of unauthorized solid waste dumps; established the Alabama Recycling Fund which provides grants funds to local governments and non-profit organizations within Alabama to develop and enhance recycling and waste minimization programs; and has provided adequate funding resources to ADEM to carry out the duties related to the regulation of solid waste management and funds educational programs related to solid waste management and

recycling. These programs are funded by a $1.00 per ton and $0.25 per cubic yard statewide solid waste disposal fee.

With the 2008 passage of the Solid Wastes and Recoverable Materials Management Act (SWRMMA) and accompanying regulations, the Department was tasked with tracking, calculating and reporting progress towards a statewide 25% Solid Waste Reduction Goal. That goal was first exceeded in 2018 and again in 2022.

The data presented in this report represent the most current information on solid waste management that was made available to the State. The data and information presented in this report were obtained primarily from the approved local plans, which were the result of months of study by the counties and municipalities and their consultants. This report does not evaluate the accuracy and completeness of the local plans nor comment on the methods of future solid waste management selected by a county or municipality. The completeness of each plan is evaluated by ADEM as part of its review. During this most recent round of local plan development, additional municipalities made the decision to opt-in and opt-out of their respective county plans and to prepare their own solid waste management plans. As of March 2024, 68 local plans have been approved and several plans are expected to be received in the near future. To date, only nine counties and seven municipalities have not complied with the statutory and regulatory requirements to develop revised local solid waste plans. Further actions may be taken to bring these local governments into compliance.

The results of a statewide survey performed for the first phase of the Plan indicated Alabamians generated an average of 6.5 pounds of solid waste per person per day. The survey also indicated that approximately five percent of the State's waste stream was recycled. Later data supplied by local governments and compiled as part of the second phase of the Plan indicated that the average solid waste production per person per day is 6.3 pounds and that 2.6 percent of the waste stream was actually recycled. More recent data supplied to the Department during the period of 2022-2023 indicates the total average daily solid waste generation by Alabamians is 12.12 pounds per person per day combining municipal, construction/demolition and industrial waste streams, and that approximately 25 percent of the non-hazardous solid waste stream in the State is recycled or beneficially reused.

## SECTION II
## STATUTORY AND REGULATORY UPDATE

Since the 2008 plan update, the Department and Legislature have implemented several revisions to the Solid Waste Program regulations (Division 13 of the ADEM Administrative Code) to reflect changes in the law. These revisions were made to incorporate new statutory requirements into the existing program regulations and redefine existing definitions.

In 2011, the Alabama Legislature directed the Department to work with the Alabama Department of Public Health to evaluate and make recommendations regarding solid waste management in the State of Alabama. As a result of this directive, the Department partnered with Auburn University to conduct an independent assessment of Alabama's solid waste permitting process. In addition, the Department also tasked Auburn University to evaluate Alabama's overall solid waste management practices. Auburn University completed the Alabama Solid Waste Study in November of 2013. The Alabama Solid Waste Study was a two phased project: Phase 1 examined the solid waste landfill permitting process currently in place in Alabama, and Phase 2 studied strategies for future solid waste management in Alabama. Reports for Phase 1 and 2 were submitted to the Department on May 30, 2013, and November 3, 2013, respectively. The reports of the complete study can be found on the ADEM website at http://www.adem.alabama.gov/programs/land/SolidWasteReport.cnt.

In 2016, new regulations [335-13-4-.26(6) Disposal requirements for wood ash waste.] were written to allow for the alternative management for wood ash wastes which exhibit less than 50 percent of each of the toxicity characteristic (TC) levels for metals.

In 2018 and 2021, new regulations [335-13-15 Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments.] were written that applies to owners and operators of new and existing landfills and surface impoundments that dispose or otherwise engage in solid waste management of coal combustion residuals (CCR) generated from the combustion of coal at electric utilities and independent power producers and established a permitting program for these CCR units.

The Department also amended the solid waste permitting application regulations [335-13-5-.02 Permit Application] to reflect a modification in the local host government approval process due to a statutory change (2017 Regular Session-House Bill 328) to the Code of Alabama. This modification inevitably removed the Regional Planning Committee's review and approval from the process. Furthermore, new landfill applicants are required to petition the circuit court to review whether the local governing body complied with the public comment

requirements, their approval of the application was consistent with the local solid waste management plan, and whether consideration of the criteria for siting a landfill, provided in the application, was considered.

In 2019, the Department revised existing regulations concerning permit duration. Permits obtained in compliance with Division 13 shall be valid for the design life of the facility or as otherwise determined by the Department, but no longer than a period of ten years.

In 2020, an effort to significantly reduce a contributor of solid waste to Alabama's landfills, and to provide oversight to a previously unregulated agricultural practice, ADEM established regulations to require management practices for utilization of using municipal and industrial by-product materials as substitutes for commercial fertilizers and soil amendments: 335-13-16 Requirements for the Beneficial Use of By-Product Materials for the Purpose of Land Application, or the Beneficial Use Program.

In 2020, the Alabama Legislature revised the statute to clarify the meaning and intent of alternative cover materials for landfills. In 2021, the Department adopted new regulations that give the Department the discretion to evaluate and approve alternative cover material in compliance with federal law and the USEPA rules for guidance to achieve a level of performance equal to or greater than earthen cover material.

The future success of solid waste management in Alabama rests with the implementation of programs designed to minimize the State's dependence on disposal and to increase efforts to re-use and recycle. Current programs implemented by ADEM with the purpose of achieving these goals include the School Recycling Challenge, the Alabama Recycling Fund Grants Program, the Scrap Tire Marketing Grants Program, and statewide Education & Outreach regarding these programs. Other efforts include communicating with stakeholders and coordinating with communities and municipal governments to achieve reduction goals. To continue the long-term viability of this path, significant increase in resources must be devoted to the regulatory oversight of both permitted landfills and to the closure of illegal solid waste dumps. Public education and political support either for a fundamental paradigm shift to waste minimization and recycling, or of increased resources and significant revisions to the State's existing solid waste management system must be achieved if Alabama is to fully embrace the statutory purpose of the orderly management of solid

wastes resulting from decisions based on comprehensive planning at the local, regional and state level.

## SECTION III
## WASTE GENERATION AND DISPOSAL VOLUME NEEDS

An accurate accounting of the quantity of waste in Alabama's solid waste stream is a key element of producing a solid waste management plan that reflects the present and future needs of the State. The Act stipulates that each revision of the State Solid Waste Management Plan may include:

1. a revised estimate of the solid waste generation and disposal in the State for a 10-year period;
2. the total amounts of solid waste generated, recycled, and disposed of during the calendar year prior to the Plan's revision; and
3. the methods of solid waste disposal and recycling used during the prior calendar year.

In past waste accountings there were two basic methods utilized by counties and municipalities in quantifying their waste streams:

Method I: Evaluation of historical waste stream quantities landfilled, incinerated, and recycled. Projection of waste quantities by determining overall trends in the historical waste quantities; or

Method II: Evaluation of historical waste stream quantities landfilled, incinerated, and recycled. Projection of waste quantities by applying unit waste generation factors derived from historical waste stream quantities and population estimates.

Projections utilizing Method I were made through the assumption that future waste stream quantities will follow historical trends. This method did not acknowledge individual factors affecting waste quantities but considers the trend in overall changes in waste stream quantities over a period of time.

In Method II, total waste stream quantities were projected by modifying historical waste quantities through expected changes in population. A unit waste generation factor (i.e.,

pounds per capita per day) was calculated from historical data and was applied to the projected annual population. Pounds per capita per day rates varied greatly across the State, and the variations can be attributed to commercial activity, industrial activity, individual waste disposal practices, and the various data collection techniques utilized by local governments. Many local solid waste management plans utilized the national average of 5.3 pounds per capita per day. Appendices A-1 and A-2 contain the total annual solid waste generation and recycling projections for the State for a period of ten years, as well as actual information on waste disposal for 2022.

## SECTION IV
## DEVELOPMENT AND IMPLEMENTATION OF LOCAL SOLID WASTE MANAGEMENT PLANS

Both the Act and the ADEM Solid Waste regulations require periodic updating of local solid waste management plans. Rulemaking undertaken in 2002 required submittal of the local plans to ADEM by September 2004. As of March 2024, 68 local plans have been approved and several plans are expected to be received in the near future. To date, only nine counties and seven municipalities have not complied with the statutory and regulatory requirements to develop revised local solid waste plans. A complete listing of the local solid waste management plans and their approval status as of March 2024 is included in Appendix A-3.

Despite continued efforts to encourage recycling and waste minimization, a number of local jurisdictions have not fully developed and implemented recycling programs as part of their local solid waste management strategy. In an effort to help assist those jurisdictions, revisions and amendments to solid waste management plans are eligible for funding through the Alabama Recycling Fund Grants Program.

## SECTION V
## SOLID WASTE REDUCTION AND RECYCLING EFFORTS

The Solid Waste Disposal Act, SWRMMA and ADEM regulations provide for programs that emphasize waste minimization and recycling as key components of the State's overall solid waste management program. Pursuant to Code of Alabama §22-27-45, (2006 Rplc. Vol.), the State Solid Waste Management Plan developed in 1991 and adopted into the regulations in 2002 recommended a statewide municipal solid waste recycling goal of 25%. In 2020, the Environmental Protection Agency announced a National Recycling Goal to reach a recycling

rate of 50% by 2030. On a state level, Alabama met its Solid Waste Reduction Goal of 25% in 2018, 2019, 2020, 2021 and in 2022.

To further state government's commitment to recycling and waste reduction, under Alabama Law 90-564 §3(b), and subsequently Code of Alabama §22-22B-3(b), (2006 Rplc. Vol.), state agencies and public school systems are required to report recycling activities annually to ADEM. In 2008, the Materials Management Section of the Solid Waste Branch assumed the responsibility for tracking and reporting on this requirement. From 2019 to 2022 state agencies and school systems recycled 34,043.61 tons of material.

An additional component of the SWRMMA was the establishment of an Alabama Recycling Fund (ARF) and directive that ADEM develop a grants program which would assist local governments in the establishment or expansion of local recycling and waste minimization programs. Each year grant applications submitted by the March 1 deadline are reviewed and ranked for funding. Communities are designated as Category 1 (greater than 40,000 households), which must receive at least 60% of funds, or Category 2 (less than 40,000 households), which must receive at least 20% of grant funds. The remaining 20% can be awarded to either category, with no single award being for more than 20% of funds available. To date, approximately $30,000,000 has been awarded to local governments in Alabama. The recycling grants assist Alabama communities in realizing increases in diversion from the disposal of recyclable commodities. As a requirement for funding, local governments may only request funding for items that are consistent with the stated goals and objectives of their local Solid Waste Management Plan. If not consistent however, the ARF funds and associated grants program may provide resources to update local plans for consistency. Once the updated plan has been approved, funding for other items requested may be obtained.

To foster a better understanding by the Department as to the waste reduction and recycling efforts of local solid waste management programs, the Plan established an annual reporting requirement for local solid waste management authorities. The reporting would simplify the recommendation for a comprehensive annual solid waste report that was made as part of Phase II of the State Solid Waste Management Plan. Tables for this streamlined reporting are included in Appendix A-4.

Furthermore, solid waste reduction efforts are realized through the implementation of new programs, such as the Beneficial Use program (335-13-16). The program instituted

the requirement for all Generators and Distributors of by-product materials destined for land application in the State to register in the program and abide by specific operational standards for storage and land application activities. This structure provided the Department with the ability to monitor and inspect by-product application sites to ensure compliance and the use of best management practices to protect human health and the environment. These inspections combined with annual reporting of by-product material use broadened the Departments' understanding of the Beneficial Use universe and has provided data-driven framework by which further regulatory needs could be known and incorporated in future rulemaking efforts.

Since 2020, approximately 1.1 million dry tons of by-product materials have been diverted from landfills for agricultural use and the universe of registered applicants has grown from 96 in 2020 to nearly 150 in 2022.

## SECTION VI
## SCRAP TIRE MANAGEMENT PROGRAM

In the 2003 session, the Alabama Legislature passed the Alabama Scrap Tire Environmental Quality Act. This legislation was developed as a result of a recommendation made in Phase II of the State Solid Waste Management Plan. This statute established the Scrap Tire Fund and required ADEM to develop and implement a statewide scrap tire management program by October 1, 2004. ADEM Administrative Code, Division 4, which contains the scrap tire regulations and requirements, became effective August 4, 2004.

With input from the Scrap Tire Commission, ADEM began the process of staffing the program, and developing information systems and supporting documents as well as standard operating procedures. In conjunction with trade and industry associations and the media, the Department initiated strategies to notify those subject to regulation. The regulatory program instituted the registration of Scrap Tire Receivers, which included separate classes for tire retailers and salvage and fleet operations. The permitting program initiated provided for permitting of scrap tire transporters, processors and end-users, and included provisions for the storage and transportation of scrap tires as well as other requirements. Manifesting shipments utilizing an approved form was a requirement to provide ADEM with information useable in determining proper reuse or disposal of scrap tires within the state. Procedures were also established by

regulation for the use of the Scrap Tire Fund for remediation of scrap tire sites in Alabama. Included were those for an approved contractor and site ranking systems.

Since initiated, the ADEM Scrap Tire Program has issued over 5,000 receiver registrations, 800 transporter and processor permits, and performed over 13,600 inspections of scrap tire facilities and scrap tire sites. In the area of site cleanup, cooperative efforts by property owners and ADEM enforcement actions have resulted in the removal of over 12.5 million scrap tires from illegal disposal sites, without expending Scrap Tire Fund resources. In 2019, the site ranking process identified the State's fourth largest illegal scrap tire site in Camp Hill, Tallapoosa County, Alabama. After completing the initial contractor approval, competitive bidding and contract award processes, scrap tire removal from the site began and within three months of the project's start date the remediation was completed, removing approximately 4,000 tons of scrap tire material. Of this amount, roughly 10% of the material was been beneficially reused.

Originally tasked to the Alabama Department of Economic and Community Affairs (ADECA), but transferred to ADEM in 2009, the ADEM Scrap Tire Marketing Program was established to demonstrate potential beneficial end uses of scrap tires. Included in the potential uses are scrap tire derived products and applications, and their suitability for substitution of new raw materials. Widespread use of scrap tire derived products has been limited by factors including developers, consumers, construction firms and others being unaware of the myriad of applications available. The program aims to bring awareness of the many uses of scrap tire derived products to these groups and others. The utilization of scrap tires in beneficial reuse applications continues to be demonstrated successfully in Alabama. The availability and durability of the material lends itself to a wide range of uses which, in many cases, also yields economic benefits. The program aims to support research and demonstration of end uses, which may overcome current misconceptions, and technical barriers, which will lead to more widespread implementation.

The Department utilizes an open grant process to select demonstration projects for reimbursement. Such projects are meant to encourage the use of tire derived products and applications. These projects have not only provided environmental and economic benefits in their application but have improved communities and public facilities across Alabama. To date, the program has provided over $12.3 million

for the implementation of Scrap Tire Marketing projects in the State. Please see the list below of several major scrap tire marketing projects funded by ADEM:

* Lake Guntersville & Desoto State Parks - Recycled Tire Rubber Modified Asphalt Project (~5 miles)
* Tuscaloosa County Park & Recreation Authority - Muny Sokol Park - Recycled tire surfacing for an All-Inclusive Playground Project
* Coffee County Rubber Modified Asphalt Project (~1.85 miles)
* SSAB Alabama, Inc. - Injection Carbon Optimization Project
* Numerous recycled tire material mulch projects primarily for playgrounds and septic drainage fields
* Numerous recycled tire material bonded mulch projects primarily for walking trails
* McClellan Development Authority - Lake Yahou - Recycled Tire Rubber Modified Asphalt Project (~1.25 mile)
* Joe Wheeler State Park - Recycled Tire Rubber Modified Asphalt Project (~6.75 mile)
* St. Clair County - Recycled Tire Rubber Modified Asphalt Project (~2.91 mile)

## SECTION VII
## CONCLUSIONS

In summary, the Department continues to make a concerted effort towards continually exceeding the Solid Waste Reduction Goal. The Department recognizes that increasing reduction and recycling in Alabama requires a multi-faceted approach. Informing local governments and municipalities of their eligibility for Alabama Recycling Fund Grants has led to an increase in grant applications. The Department's implementation of an annual Grant Workshop has improved the quality of these applications. Continued involvement in education and outreach opportunities helps communicate the importance of recycling through personal contact with locals and the public. The School Recycling Challenge has expanded by targeting more schools and including a more in-depth educational component. The Department continues to maintain a positive relationship with stakeholders and communities by keeping them informed and involved in waste reduction and recycling efforts.

The Scrap Tire Marketing Program continues to grow. In line with the multi-faceted approach, the Scrap Tire Marketing component was added to the Alabama Recycling Fund Grant's Scope of Services. By offering additional funding to address scrap tire's, it is the Department's intent to help communities boost their reduction efforts and bring awareness to the Scrap Tire Marketing Fund.

The implementation of the Department's new permitting system, AEPACS (Alabama Environmental Permitting and Compliance System), has made permitting and compliance more streamlined. The increased efficiency benefits the Department and the external users. It allows both users to easily navigate facility information and monitor schedules for permits, payments and applications. As the benefits of the system continue to be realized, the expectation is to see an increase in data collection. Efficient and increased data collection is an integral piece of increasing reduction and recycling in Alabama.

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**APPENDIX A-1**
**10-YEAR SOLID WASTE GENERATION AND RECYCLING PROJECTIONS**

| Year[a] | Population[b] (persons) | Diverted Wastes[c] (tons) | Landfilled Wastes[d] (tons) | Total Waste Generation[e] (tons) | Total Waste Generation[e] (lbs/person/day) | Solid Waste Diversion Rate[g] |
|---|---|---|---|---|---|---|
| 2022 | *5,096,708* | 2,884,967 | 8,391,829 | 11,276,796 | 12.12 | 25.58% |
| 2023[h] | *5,125,547* | (2,409,721) | (8,499,435) | (10,909,156) | (11.65) | (22.09%) |
| 2023[i] | *(same)* | *(3,134,006)* | *(8,206,599)* | *(11,340,605)* | 12.12 | *(27.64%)* |
| 2024 | *5,154,387* | *3,385,663* | *8,018,751* | *11,404,414* | 12.12 | *29.69%* |
| 2025 | *5,183,305* | *3,639,995* | *7,828,403* | *11,468,398* | 12.12 | *31.74%* |
| 2026 | *5,212,144* | *3,896,894* | *7,635,313* | *11,532,207* | 12.12 | *33.79%* |
| 2027 | *5,240,984* | *4,156,412* | *7,439,605* | *11,596,016* | 12.12 | *35.84%* |
| 2028 | *5,269,823* | *4,418,548* | *7,241,277* | *11,659,825* | 12.12 | *37.90%* |
| 2029 | *5,298,742* | *4,683,373* | *7,040,436* | *11,723,809* | 12.12 | *39.95%* |
| 2030 | *5,327,581* | *4,950,750* | *6,836,868* | *11,787,618* | 12.12 | *42.00%* |
| 2031 | *5,356,420* | *5,220,746* | *6,630,681* | *11,851,427* | 12.12 | *44.05%* |
| 2032 | *5,385,260* | *5,493,361* | *6,421,875* | *11,915,236* | 12.12 | *46.10%* |

[a]2022 data (except population) are reported numbers; 2023 data are incomplete as of Monday, March 11, 2024, therefore 2023 projections are provided in addition to those reported, with Statewide Solid Waste Reduction Goal set at 25% (see 335-13-13-.02 prior to expected regulatory changes); 2024-2032 data are *projected* as described below.

[b]Population projected via linear regression on US Census data for Alabama (2000, 2010, 2020; $R^2 = 0.9841$; $\mu = 4.75 \times 10^6$ persons; $\sigma = 2.90 \times 10^5$ persons)

[c]Diverted wastes = summation of volumes reported across recycling, scrap tire, and beneficial-use programs; Note: Diversion prior to 2023 was calculated by reported materials received at recycling facilities. Updated reporting in 2023 and after allows the calculation to use reported materials that are sent to end-use manufacturers (i.e., truly diverted); Diverted wastes are projected at a set rate[a,g]

[d]2022, 2023 landfilled wastes are in-state volumes reported (MSW, C&D, & ILF); 2023(projected)-2032 landfilled wastes projection assumes static annual diversion rate[g]

[e]2022, 2023$_{(incomplete)}$ Total waste generation = summation of reported landfilled and diverted wastes; 2023$_{(projected)}$-2032 total waste generation projected by applying 2022 per capita waste generation rate to population projections over the same time period.

[f]Per capita waste generation rate = (([Projected Waste Generation]x2000lbs)/[Projected Population])/365.25days

[g]2022, 2023 Solid Waste Diversion Rate = (Projected Diverted Wastes)/(Projected Total Waste Generation)x100%; Annual increase in diversion rate for 2023$_{(projected)}$-2031 projections is based on an average percentage increase from 2012-2022 of 2.05%.

[h]incomplete

[i]projected

## APPENDIX A-2

## SOLID WASTE DISPOSAL IN ALABAMA[1]

| Source | 2020 (tons) | 2021 (tons) | 2022 (tons) | 2023 (tons)[2] |
|---|---|---|---|---|
| Municipal Solid Waste Disposal | 6,159,254 | 6,071,849 | 6,430,234 | 6,726,817 |
| Industrial Solid Waste | 1,526,132 | 1,633,253 | 1,397,715 | 1,304,631 |
| Construction and Demolition Waste | 1,706,283 | 1,769,871 | 1,907,073 | 1,793,455 |
| Total Waste Disposal | 9,391,669 | 9,474,973 | 9,735,022 | 9,824,903 |

[1]Based on in-state and out-of-state quantities reported to the Alabama Department of Environmental Management

[2]2023 reports as of Friday, March 1, 2024

**APPENDIX A-3**
**APPROVED LOCAL SOLID WASTE MANAGEMENT PLANS***

| | |
|---|---|
| Autauga County | Jackson County |
| Baldwin County | Jefferson County |
| Barbour County | Lamar County |
| Bibb County | Lauderdale County |
| City of Birmingham | Lawrence County |
| Blount County | Lee/East Alabama Regional SWDA |
| Bullock County | Limestone County |
| Butler County | Macon County |
| Calhoun County | Madison County |
| Chambers County | Marengo County |
| Cherokee County | Marion County |
| Chilton County | Marshall County |
| Choctaw County | City of Mobile |
| Clay County | Mobile County |
| Coffee County | Monroe County |
| Colbert County | Montgomery County |
| Conecuh County | Perry |
| Covington County | Pickens |
| Crenshaw County | Pike |
| Cullman County | Randolph |
| Dale County | City of Red Bay |
| Dallas County | Russell/East Alabama Regional SWDA |
| DeKalb County | Phenix City |
| City of Dothan | City of Selma |
| Escambia County | Shelby County |
| Fayette County | St. Clair County |
| City of Florence | Sumter County |
| Franklin County | Town of Sylvan Springs |
| City of Ft. Payne | Tallapoosa County |
| Geneva County | Tuscaloosa County |
| Green County | City of Valley |
| Hale County | Washington County |
| Henry County | Wilcox County |
| Houston County | Winston County |

**LOCAL PLANS NOT SUBMITTED FOR ADEM REVIEW (expired)***

| | |
|---|---|
| City of Alex City | City of Huntsville |
| City of Brundidge | Lowndes County |
| Clarke County | City of Montgomery |
| Cleburne County | Morgan County |
| Coosa County | City of Scottsboro |
| Elmore County | Talladega County |
| Etowah County | City of Troy |
| City of Heflin | Walker County |

*Status as of March 2024

**APPENDIX A-4**
**RECYCLING REPORTING FOR STATE GOVERNMENT AND EDUCATION DEPARTMENTS**

| Year | Total Reports | Total Volume (tons) | Tons per Report |
|---|---|---|---|
| 2016 | 59 | 7,009.03 | 118.80 |
| 2017 | 40 | 17,614.15 | 440.35 |
| 2018 | 56 | 8,195.37 | 146.35 |
| 2019 | 38 | 5,602.98 | 147.45 |
| 2020 | 45 | 8,154.66 | 181.21 |
| 2021 | 54 | 11,518.39 | 213.30 |
| 2022 | 26 | 8,767.58 | 337.21 |

**RECYCLING PROJECTION RANGES FOR STATE GOVERNMENT AND EDUCATIONAL DEPARTMENTS**

| Year | Reports Projected Range[1] | Volume Projected Range[2] | Avg. Tons per Report Projected[3] |
|---|---|---|---|
| 2023[4] | 22 - 45 | 4,572 - 12,544 | 253.84 |
| 2024 | 19 - 43 | 4,323 - 12,296 | 269.91 |
| 2025 | 16 - 40 | 4,075 - 12,047 | 289.37 |
| 2026 | 13 - 37 | 3,826 - 11,799 | 313.40 |
| 2027 | 10 - 34 | 3,578 - 11,550 | 343.82 |
| 2028 | 7 - 31 | 3,330 - 11,302 | 383.59 |
| 2029 | 4 - 28 | 3,081 - 11,053 | 437.79 |
| 2030 | 1 - 25 | 2,833 - 10,805 | 516.02 |

[1]Reports projected range = (Average of Total Reports 2016-2022) ± (Standard deviation of Total Reports 2016-2022)

[2]Volume Projected Range = (Average of Total Volume 2016-2022) ± (Standard deviation of Total Volume 2016-2022)

[3]Avg. Tons per Report Projected = (Average of Total Reports 2016-2022)/(Average of Total Volume 2016-2022)

[4]2023 reports are still coming in at the time of these calculations. As of Monday, March 11, 2024: No. of Reports = 40; Total Volume Reported (tons) = 10,184; Tons per Report = 254.59

## APPENDIX A-5
## ALABAMA RECYCLING FUND GRANTS PROGRAM

| Fiscal Year | No. of Grants | Total Amount Awarded |
|---|---|---|
| 2010 | 8 | $1,162,052.62 |
| 2011 | 13 | $1,654,106.12 |
| 2012 | 20 | $2,000,000.51 |
| 2013 | 15 | $2,009,006.36 |
| 2014 | 18 | $2,363,640.18 |
| 2015 | 16 | $1,899,997.31 |
| 2016 | 22 | $1,829,372.46 |
| 2017 | 19 | $1,252,968.35 |
| 2018 | 13 | $1,600,000.67 |
| 2019 | 13 | $1,756,592.35 |
| 2020 | 19 | $1,623,556.32 |
| 2021 | 16 | $1,478,324.22 |
| 2022 | 16 | $1,700,000.00 |
| 2023 | 43 | $3,766,907.87 |
| **Total** | **251** | **$26,096,525.33** |

**APPENDIX A-6**
**SCRAP TIRE MARKETING FUND GRANTS PROGRAM**

| Fiscal Year | No. of Grants | Total Amount Awarded |
|---|---|---|
| 2010 | 1 | $62,013.00 |
| 2011 | 42 | $359,936.00 |
| 2012 | 18 | $6,158,797.00 |
| 2013 | 5 | $71,428.00 |
| 2014 | 4 | $420,069.00 |
| 2015 | 4 | $290,597.00 |
| 2016 | 2 | $31,818.00 |
| 2017 | 2 | $461,853.00 |
| 2018 | 4 | $237,565.00 |
| 2019 | 9 | $242,768.00 |
| 2020 | 2 | $301,541.00 |
| 2021 | 5 | $896,370.00 |
| 2022 | 10 | $634,595.00 |
| 2023 | 13 | $2,090,266.10 |
| **Total** | **121** | **$12,259,616.10** |

**Author:** Jason Wilson, Blake B. Pruitt.
**Statutory Authority:** Code of Alabama 1975 §§22-22A-8(d); 227-27-40 et seq.
**History:** **New Rule:** Published _____; effective _____.