

**Iowa Department of Natural Resources  
Environmental Protection Commission**

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<b>ITEM</b>	<div style="border: 1px solid black; padding: 2px 10px;">#</div>	<b>DECISION</b>
<b>TOPIC</b>	<b>Notice of Intended Action: Chapters 22 and 23–Best Management Practices for Grain Elevators and Adoption of Federal Air Toxics Standards</b>	

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The Department is requesting permission from the Commission to proceed with the rulemaking process and publish a Notice of Intended Action to amend Chapter 22 "Controlling Pollution," and Chapter 23 "Emission Standards for Contaminants."

**Reason for Rulemaking**

The first purpose of the proposed rule changes is to establish best management practices (BMPs) for grain vacuuming at small grain elevators. The BMPs include practical activities that may be used at elevators to minimize dust and possible air quality impacts resulting from vacuuming grain out of storage structures. The BMPs were developed through a stakeholder workgroup jointly organized by the Department of Natural Resources (Department) and Agribusiness Association of Iowa (AAI), and included grain elevator operators and grain vacuum (grain vac) vendors.

The second purpose of the proposed rule changes is to adopt by reference federal air toxics standards for chemical manufacturing plants and for prepared feeds manufacturing (also known as National Emission Standards for Hazardous Air Pollutants or NESHAP). The Commission had originally adopted these standards by reference in 2010. However, Executive Order 72 rescinded adoption of these standards along with rescission of the RICE NESHAP. Subsequent to Executive Order 72, the U.S. Environmental Protection Agency (EPA) revised these NESHAP standards. The revised NESHAP generally provide regulatory relief and clarity from the previous requirements. The Department is now requesting permission to adopt these NESHAP. Upon adoption of the NESHAP, the Department rather than EPA will implement these regulations in Iowa, allowing the Department to provide compliance assistance and outreach to affected facilities.

**Summary of Proposed Rule Changes**

Grain Vac BMPs

Prior to 2008, most grain facilities used sweep augers to extract the remaining grain from the bottom of storage bins. Beginning in late 2009, the U.S. Occupational Safety and Health Administration (OSHA) sent letters to grain elevators stating that operators could not be inside a grain bin while an unguarded sweep auger operated inside the bin. The OSHA letters resulted in more facilities using grain vacuuming to remove the remaining grain from storage bins.

With the wider use of grain vac operations, the Department's field offices started receiving dust complaints from residences and businesses located near grain elevators using grain vacs. The Department subsequently partnered with AAI to convene a stakeholder workgroup to develop solutions that address complaints and ensure compliance with air quality regulations. The proposed BMPs are the result of this collaborative effort. The proposed BMPs will be added to the existing BMPs adopted by reference in 567 IAC Chapter 22

#### Adoption of Air Toxics (NESHAP) standards for Chemical Manufacturing and Prepared Feeds Manufacturing

In October 2009, EPA finalized the NESHAP for Chemical Manufacturing at Area Sources (Subpart VVVVVV, hereafter referred to as the "6V NESHAP"). The final 6V NESHAP appeared to include ethanol production facilities, but the standards were unclear on several points. In January 2012, EPA agreed to reconsider portions of the 6V NESHAP. On December 21, 2012, EPA issued final amendments to the 6V NESHAP, and extended the compliance date until March 2013. With the assistance of Iowa Renewable Fuels Association (IRFA), the Department determined that current dry-mill corn ethanol production facilities in Iowa are not subject to the 6V NESHAP. At this time, the Department has identified a small number of other chemical manufacturing facilities subject to the 6V NESHAP.

In January 2010, EPA finalized the NESHAP for Prepared Feeds Manufacturing at Area Sources (Subpart DDDDDDD, hereafter referred to as the "7D NESHAP"). The final 7D NESHAP appeared to cover all feed mills that used chromium and manganese in production, but several provisions of the final standards were unclear. In 2011, EPA agreed to reconsider some provisions of the 7D NESHAP. EPA finalized its reconsideration on December 23, 2011, revising its standards so that larger feed mills with pellet cooler operations did not need to install new emissions control if the facility had existing control equipment. The 7D NESHAP compliance date for existing feed mills was January 5, 2012.

#### **Public Comments and Public Hearing**

If the Commission approves the proposed rulemaking, the Notice of Intended Action will be published in the Iowa Administrative Bulletin on May 14, 2014. The Department will hold a public hearing on Monday, June 16, 2014, at 1:00 p.m. at the Air Quality Bureau offices. The Department will accept written public comments until 4:30 p.m. on June 16, 2014.

An administrative rule jobs impact statement and fiscal impact statement are attached.

Christine Paulson  
Environmental Specialist Senior  
Program Development Section, Air Quality Bureau  
Memo date: March 24, 2014

## **ENVIRONMENTAL PROTECTION COMMISSION [567]**

### **Notice of Intended Action**

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission (Commission) hereby gives Notice of Intended Action to amend Chapter 22, “Controlling Pollution,” and Chapter 23, “Emission Standards for Contaminants” Iowa Administrative Code.

First, the Commission proposes to establish best management practices (BMPs) for grain vacuuming operations at small grain elevators in Chapter 22. The BMPs include practical activities that owners and operators may use at grain elevators to minimize dust and possible air quality impacts resulting from vacuuming grain out of storage structures.

Second, the Commission is proposing changes to Chapter 23 to adopt by reference federal air toxics standards for chemical manufacturing plants and for prepared feeds manufacturing (also known as National Emission Standards for Hazardous Air Pollutants, or NESHAP).

The Commission had originally adopted these standards by reference in 2010. However, Executive Order (EO) 72 rescinded adoption of these standards along with rescission of the RICE NESHAP. EO 72 stated the RICE NESHAP was too costly for small utilities that maintain and operate rarely used emergency engines, and the RICE NESHAP requirements could increase electricity rates for consumers. In response to the concerns from Governor Branstad as expressed in EO 72 and concerns from other stakeholders, EPA agreed to reconsider the RICE NESHAP. Consequently, EPA updated the RICE NESHAP to provide more circumstances for emergency engines and for engines that participate in electricity management programs to operate under non-

emergency conditions. The Commission adopted the updated RICE NESHAP in a previous rulemaking (see Iowa Administrative Bulletin, September 16, 2013, ARC 1014C).

Subsequent to EO 72, the U.S. Environmental Protection Agency (EPA) updated the NESHAP standards proposed for adoption in this rulemaking. The revised NESHAP generally provide regulatory relief and clarity from the previous requirements. The Commission is proposing to adopt these NESHAP. Upon adoption of the NESHAP, the Department of Natural Resources (Department) rather than EPA will implement and enforce these regulations in Iowa, thereby allowing the Department to provide compliance assistance and outreach to affected facilities as soon as possible.

**Item 1** amends subparagraph 22.10(3)"a"(2) to revise the BMPs for grain elevators currently adopted by reference. The BMPs for grain elevators are designed to reduce emissions of particulate matter less than 10 microns in diameter (PM<sub>10</sub>), especially dust that crosses the property line and may adversely affect air quality at nearby businesses or residences. The BMP document includes both facility-wide and equipment-specific practices that apply to both new and existing equipment. The proposed amendment will add to the current BMP document a list of management practices for grain vacuuming operations at grain storage bins. The proposed management practices were developed and recommended by a stakeholder workgroup jointly coordinated by the Department and the Agribusiness Association of Iowa (AAI). The proposed changes to the BMP document are available from the Department, upon request, and at the Department's website at <http://www.iowadnr.gov/InsideDNR/RegulatoryAir/StakeholderInvolvement.aspx> (under

the Public Input section).

### **Background**

In 2007, the Department worked with AAI and other stakeholders to develop flexible groupings for grain elevators. This collaboration resulted in rules that allowed over 800 owners and operators of small grain elevators (classified as “Group 1” elevators) to complete a one-page registration form rather than applying for an air construction permit. Additionally, the adopted rules (published on February 13, 2008; ARC 6599B) established the BMPs for small grain elevators.

Prior to 2008, most grain facilities used sweep augers to extract the remaining grain from the bottom of storage bins. Beginning in late 2009, the U.S. Occupational Safety and Health Administration (OSHA) sent letters to grain elevators stating that operators could not be inside a grain bin while an unguarded sweep auger operated inside the bin. The OSHA letters resulted in more facilities using grain vacuuming to remove the remaining grain from storage bins.

With the wider use of grain vacuuming (grain vac) operations, the Department’s field offices started receiving dust complaints from residences and businesses located near grain elevators using grain vacs. The Department became concerned about PM<sub>10</sub> emissions and dust from increased use of grain vac operations. The Department subsequently partnered with AAI to convene a stakeholder workgroup to develop solutions that address complaints and ensure compliance with air quality regulations. The proposed rule is the result of this collaborative effort.

### **Stakeholder Involvement**

The Grain Vac Workgroup convened in August 2011. The workgroup consisted

of ten participants in addition to representatives from AAI, the Department and the Iowa Department of Agriculture and Land Stewardship. The facility and business participants included representatives from grain elevators and grain vac vendors. The workgroup met two times between August 2011 and June 2012. In addition, the Department conducted three onsite visits to observe grain vac operations.

The proposed rule revises the document, “Best Management Practices for Grain Elevators (December 2007),” adopted by reference in subparagraph 22.10(3)”a”(2). The revisions incorporate management practices for grain vac operations. The BMPs for grain vac operations will become applicable on the effective date of the proposed rule.

### **Affected Facilities**

The proposed rule will revise the current BMPs for “Group 1” grain elevators, and provides the option to include revised BMPs in the permits for new or modified “Group 2” grain elevators.

Group 1 grain elevators are specifically defined as facilities with PM<sub>10</sub> emissions less than 15 tons per year (567 IAC 22.10). Group 1 elevators are typically smaller grain elevators and are often “country grain elevators” that receive fifty percent or more of their grain from nearby farmers during harvest season. The owner or operator of a Group 1 elevator may use the BMP document and the streamlined registration process provided in rule 22.10 rather than applying for an air construction permit.

Group 2 grain elevators have potential PM<sub>10</sub> emissions between 15 and 50 tons per year. In lieu of using the regular construction permit process, an owner or operator of a Group 2 elevator may complete a shorter application form specific to Group 2 elevators. The facility will receive a Group 2 permit that allows the facility to make

certain changes without having to modify the permit. The BMPs included in the Group 2 permit are identical to the BMP document for Group 1 facilities. The amendment will affect only new or modified Group 2 facilities that apply for a new or revised Group 2 permit.

The proposed rule adds BMPs specific to grain vac operations to the current BMP document. Grain elevators that are not classified as Group 1 or Group 2 elevators are not covered by the proposed rule changes. Grain elevators classified as Groups 3 or 4 in rule 22.10, as well as other grain elevators not covered by this rule, must obtain air construction permits. Construction permits include requirements specific to the facility, and may require BMPs similar to those in the BMPs for Group 1 or Group 2 facilities.

**Item 2** amends the introductory paragraph of subrule 23.1(4) to reflect the most current amendment date to 40 Code of Federal Regulations (CFR) Part 63 that are adopted by reference in state administrative rules. The revised date reflects the amendments described in Item 3 and Item 4.

**Item 3** amends paragraph 23.1(4) to adopt the federal NESHAP for Chemical Manufacturing at Area Sources (40 CFR Part 63, Subpart VVVVVV). The Commission originally adopted this NESHAP by reference in 2010. However, EO 72 rescinded adoption of this standard along with rescission of the RICE NESHAP. Subsequent to EO 72, the EPA revised this NESHAP standard to provide clarity and regulatory relief to stakeholders. The Commission is now proposing to adopt this standard for chemical manufacturing facilities.

### **Background**

In October 2009, EPA finalized the NESHAP for Chemical Manufacturing at

Area Sources (Subpart VVVVVV, hereafter referred to as the “6V NESHAP”). The final 6V NESHAP appeared to include ethanol production facilities, but the standards were unclear on several points. In January 2012, EPA agreed to reconsider portions of the 6V NESHAP. On December 21, 2012, EPA issued final amendments to the 6V NESHAP and extended the compliance date until March 2013. With the assistance of the Iowa Renewable Fuels Association (IRFA), the Department determined that current dry-mill corn ethanol production facilities in Iowa are not subject to the 6V NESHAP. At this time, the Department has identified a small number of other chemical manufacturing facilities subject to the 6V NESHAP.

### **Stakeholder Involvement**

Since EPA issued the original 6V NESHAP in October 2009, the Department has worked with IRFA to discuss outstanding applicability issues with the federal regulations. The Department met with IRFA to discuss EPA’s revised standards (issued on December 21, 2012) and potential implications to ethanol production facilities in Iowa. IRFA agreed to work with its members and its national association to gather data on emissions from ethanol production that could potentially trigger 6V NESHAP applicability. Based on the data and analysis that IRFA provided to the Department in May and June 2013, the Department concurred with IRFA that current dry-mill corn ethanol production facilities in Iowa are not subject to the 6V NESHAP.

### **Affected Facilities**

Based on information and analysis compiled by IRFA, the Department has determined that dry-mill corn ethanol production facilities in Iowa are not subject to the 6V NESHAP, and therefore would not have regulatory costs associated with the 6V

NESHAP. Five other chemical manufacturing facilities have notified the Department and EPA that they are subject to the 6V NESHAP. Based on information available, it appears that two of these facilities are already complying with the 6V NESHAP. One of the facilities is currently under construction. The compliance status of the other two facilities is unknown.

Upon adoption of the 6V NESHAP, the Department rather than EPA will implement and enforce these regulations in Iowa, thereby allowing the Department to provide compliance assistance and outreach to affected facilities as soon as possible.

**Item 4** amends paragraph 23.1(4)“fd” to adopt the recently amended federal NESHAP for Area Source Standards for Prepared Feeds Manufacturing (40 CFR Part 63, Subpart DDDDDDD, hereafter referred to as the “7D NESHAP”). The Commission originally adopted this NESHAP by reference in 2010. However, EO 72 rescinded adoption of this standard along with rescission of the RICE NESHAP. Subsequent to EO 72, the EPA revised this NESHAP standard to provide clarity and regulatory relief to stakeholders. The Commission is now proposing to adopt the 7D NESHAP.

### **Background**

In January 2010, EPA published the 7D NESHAP. The 7D NESHAP appeared to cover all feed mills that used chromium and manganese in production, but several provisions of the final standards were unclear. In 2011, EPA agreed to reconsider some provisions of the 7D NESHAP. EPA finalized its reconsideration on December 23, 2011, revising the 7D NESHAP so that feed mills with pellet cooler operations did not need to install new emissions control if the facility had existing control equipment. The 7D NESHAP compliance date for existing feed mills was January 5, 2012.

## **Stakeholder Involvement**

The Department has worked with AAI since EPA issued the original 7D NESHAP in January 2010. EPA issued final amendments on December 23, 2011, that generally allowed affected feed mills to comply with the 7D NESHAP using basic housekeeping requirements and existing emissions control equipment.

## **Affected Facilities**

Based on notifications submitted to EPA and the survey that the University of Northern Iowa (UNI) air emissions assistance program conducted, the Department estimates that up to 80 facilities in Iowa are subject to the 7D NESHAP. The majority of these facilities have only basic housekeeping requirements. The Department estimates that 20 of these facilities are required to control particulate emissions (a surrogate for manganese and chromium emissions) from pellet cooling operations. Most of these facilities have submitted the required notifications to EPA and the Department indicating the facilities are in compliance with the 7D NESHAP. The 7D NESHAP requires all subject facilities to undertake additional monitoring, recordkeeping, and reporting requirements.

Upon adoption of the 7D NESHAP, the Department rather than EPA will implement and enforce these regulations in Iowa, thereby allowing the Department to provide compliance assistance and outreach to affected facilities as soon as possible. The Department plans to continue the partnership with UNI and AAI to offer assistance to affected facilities.

Any person may make written suggestions or comments on the proposed rule on or before June 16, 2014. Written comments should be directed to Christine Paulson,

Department of Natural Resources, Air Quality Bureau, 7900 Hickman Road, Suite 1, Windsor Heights, Iowa 50324; fax (515) 725-9501; or by e-mail to [christine.paulson@dnr.iowa.gov](mailto:christine.paulson@dnr.iowa.gov).

A public hearing will be held on Monday, June 16, 2014 at 1:00 p.m. in the Conference Rooms, Air Quality Bureau Office, 7900 Hickman Road, Windsor Heights, Iowa. All comments must be received no later than 4:30 p.m. on June 16, 2014.

Any person who intends to attend the public hearing and has special requirements, such as those related to hearing or mobility impairments, should contact Christine Paulson at (515) 725-9510, or by e-mail to [christine.paulson@dnr.iowa.gov](mailto:christine.paulson@dnr.iowa.gov) to advise of any specific needs.

### **Jobs Impact Statement**

The following is a summary of the jobs impact statement. The complete jobs impact statement is available from the Department upon request.

After analysis and review, the Department has determined that the proposed rule will have no impact on private sector jobs and employment opportunities in the State.

### **Grain Vac BMPs**

Grain elevator owners and operators will likely entail costs to control particulate emissions during grain vac operations. However, these costs should be minimal and should not negatively impact jobs at grain elevators. First, the activities listed in the BMP document are simply examples. The grain elevator owner or operator may determine if management activities are necessary to reasonably prevent dust from grain vac operations from crossing the property line, and whether any of the examples included in the BMP document are appropriate for the facility. The owner or operator may choose to employ

different management practices. Second, the BMPs were developed by a stakeholder group consisting of representatives from both grain elevator and grain vac vendors. The workgroup developed practical, cost-effective practices that are already being successfully implemented at some grain elevators. Third, the Department expects that grain elevator owners and operators will choose to implement BMPs only as necessary, and will not implement practices at such a frequency or cost to adversely impact jobs at their facility.

### **6V NESHAP**

Based on information and analysis compiled by IRFA, the Department has determined that dry-mill corn ethanol production facilities in Iowa are not subject to the 6V NESHAP, and therefore would not have regulatory costs associated with the 6V NESHAP. The five other facilities potentially affected by the 6V NESHAP may have additional regulatory requirements, but these are not expected to be significant enough to impact jobs.

### **7D NESHAP**

The 7D NESHAP requires all subject facilities to undertake additional monitoring, recordkeeping, and reporting requirements. However, these requirements are not expected to be sufficient to negatively impact jobs at these facilities.

The proposed rule is intended to implement Iowa Code section 455B.133.

The following amendments are proposed.

**ITEM 1.** Amend subparagraph **22.10(3)"a"(2)**, as follows:

(2) Best management practices (BMP). The owner or operator of a Group 1

facility shall implement best management practices (BMP) for controlling air pollution at the facility and for limiting fugitive dust at the facility from crossing the property line. The owner or operator shall implement BMP according to the department manual, Best Management Practices (BMP) for Grain Elevators (December 2007; revised [insert date the revised manual is approved by the commission]), as adopted by the commission on January 15, 2008, and [insert date the revised manual is adopted by the commission] and adopted by reference herein (available from the department, upon request, and on the department's Internet Web site). No later than March 31, 2009, the owner or operator of an existing Group 1 facility shall fully implement applicable BMP, except that BMPs for grain vacuuming operations shall be fully implemented no later than [insert effective date of adopted amendment]. Upon startup of equipment at the facility, the owner or operator of a new Group 1 facility shall fully implement applicable BMP.

**ITEM 2.** Amend subrule 23.1(4), introductory paragraph, as follows:

**23.1(4)** *Emission standards for hazardous air pollutants for source categories.*

The federal standards for emissions of hazardous air pollutants for source categories, 40 Code of Federal Regulations Part 63 as amended or corrected through ~~September 19, 2011~~, December 21, 2012, are adopted by reference, except those provisions which cannot be delegated to the states. The corresponding 40 CFR Part 63 subpart designation is in parentheses. An earlier date for adoption by reference may be included with the subpart designation in parentheses (except for paragraph 23.1(4) "cz," which specifies a later date for adoption by reference). 40 CFR Part 63, Subpart B, incorporates the requirements of Clean Air Act Sections 112(g) and 112(j) and does not adopt standards

for a specific affected facility. Test methods (Appendix A), sources defined for early reduction provisions (Appendix B), and determination of the fraction biodegraded ( $F_{\text{bio}}$ ) in the biological treatment unit (Appendix C) of Part 63 also apply to the affected activities or facilities. For the purposes of this subrule, “hazardous air pollutant” has the same meaning found in 567—22.100(455B). For the purposes of this subrule, a “major source” means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless a lesser quantity is established, or in the case of radionuclides, where different criteria are employed. For the purposes of this subrule, an “area source” means any stationary source of hazardous air pollutants that is not a “major source” as defined in this subrule. Paragraph 23.1(4) “a,” general provisions (Subpart A) of Part 63, shall apply to owners or operators who are subject to subsequent subparts of 40 CFR Part 63 (except when otherwise specified in a particular subpart or in a relevant standard) as adopted by reference below.

**ITEM 3.** Amend paragraph 23.1(4)“ev,” as follows:

*ev. Emission standards for hazardous air pollutants for area sources: chemical manufacturing.* ~~Rescinded IAB 9/19/12, effective 10/24/12. This standard applies to chemical manufacturing at new and existing facilities that are area sources for hazardous air pollutant emissions. (Part 63, Subpart VVVVVV)~~

**ITEM 4.** Amend paragraph 23.1(4)“fd,” as follows:

*fd. Emission standards for hazardous air pollutants for area sources:*  
*prepared feeds manufacturing. Rescinded IAB 9/19/12, effective 10/24/12. This standard*  
applies to prepared feeds manufacturing that produces animal feed products (not  
including feed for cats or dogs) and uses chromium or manganese compounds at new and  
existing facilities that are area sources for hazardous air pollutant emissions. (Part 63,  
Subpart DDDDDDD)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Chuck Gipp, Director

(**Note:** Proposed changes are shown in strikethrough and underline text)

## **Best Management Practices (BMPs) for Grain Elevators**

(Adopted 12/4/07; Revisions adopted [insert effective date of adopted rules])

### **Applicability**

The BMPs listed in this document shall apply at all country grain elevators, country grain terminal elevators, and grain terminal elevators as defined below. This document has been adopted by reference in 567 Iowa Administrative Code (IAC) 22.10(455B) and can only be modified or updated after completion of an administrative rulemaking conducted in accordance with the Iowa Administrative Procedure Act (Iowa Code chapter 17A). Facility-wide and equipment specific BMPs are included that apply to both existing equipment and new equipment, unless specified otherwise.

Where requirements for BMPs in construction or operating permits exist that are more stringent than those specified in this document, the more stringent BMPs shall be implemented. The applicable requirements provided in 40 Code of Federal Regulations (CFR) Part 60, Subpart DD, “Standards of Performance for Grain Elevators,” as adopted in 567 IAC 23.1(2)“ooo,” shall apply for subject grain terminal elevators and grain storage elevators, in addition to the BMPs provided in this document.

As provided for in 567 IAC 23.3(2)“c,” the department may, upon notification to the grain elevator’s owner or operator, require the owner or operator to implement additional practices and measures not already being implemented as precautions to prevent the discharge of visible emissions of fugitive dust beyond the property line of the facility which the emissions originate on. Additionally, visible emissions from equipment or air pollution control equipment operating at a grain elevator shall not equal or exceed 40 percent opacity (567 IAC 23.3(2)“d”), or the opacity specified in a permit if the equipment is permitted, whichever is lower.

### **Definitions**

For the purposes of this document, the terms “country grain elevator,” “country grain terminal elevator,” and “grain terminal elevator” shall have the same meaning as defined in 567 IAC 22.10(1).

### **General Maintenance, Upkeep and Repair**

-Maintain and operate equipment and air pollution control equipment at all times in a manner consistent with good practice for minimizing emissions. Air pollution control equipment includes but is not limited to, quick closing doors, enclosures, air curtains, wind deflectors, grain oiling equipment, loadout socks and drop-down spouts or sleeves, baghouses and vent filters, and cyclones.

-Equipment and air pollution control equipment malfunctions shall be remedied in an expeditious manner so as to minimize the amount and duration of excess emissions.

-Air pollution control equipment shall be operated when the air emission source is in operation and shall be checked daily for proper operation. This requirement does not apply on days that the air emission source does not operate.

-Routine maintenance of equipment and air pollution control equipment shall be scheduled during periods of process shutdown to the maximum extent possible.

(**Note:** Proposed changes are shown in strikethrough and underline text)

-Clean internal and external areas, including floors, roofs and decks, as necessary to minimize dust to the atmosphere when the facility is receiving, transferring, or loading out grain.

-Clean the yard, ditches and curbs as necessary to minimize accumulation of grain, chaff, and grain dust.

### **Grain Handling Equipment**

Grain handling equipment includes but is not limited to bucket elevators or legs, scale hoppers, turn heads, scalpers, cleaners, trippers, and headhouse and other such structures.

-Grain handling equipment shall be cleaned, enclosed, or controlled as necessary to minimize visible dust emissions to the atmosphere to 5% or less opacity when the equipment is being operated.

-Operation of aeration fans shall be minimized during loading of grain into storage bins to the extent possible.

### **Grain Unloading Stations (Dump Pits) and Grain Loading Stations (Loadouts)**

-Dump pits with enclosures shall be maintained and operated so as to minimize the emissions of dust to the atmosphere resulting from the dumping and handling of grain.

-Dump pits with induced draft fans installed must use fans with a capacity of at least 50 cfm/sq. ft. of airflow at the effective grate surface, where the area of the effective grate surface is the area of the dump pit grate through which air passes, or would pass, when aspirated.

-If feasible, loadouts shall use socks and drop-down spouts or sleeves, or equivalent, which extend at least 6 inches below the sides of the receiving container to minimize grain free-fall distance, except for topping off.

-To the extent possible, the flow of the grain through the spout shall be regulated so as to minimize dust emissions from the receiving container when the container is empty to only partially full.

-If grain oiling is used, grain should be oiled after receipt at the grain unloading station and prior to transfer to bin storage to allow for the maximum control effectiveness. Grain oiling applied elsewhere in the process, instead of at the grain unloading station, will result in a lower control effectiveness and less credit for control in the PTE calculation tool.

### **Grain Dryers**

-Column dryers shall have screen perforations on replacement screens or new dryer screens no greater than 0.094 inch.

-Grain inlets and grain outlets to dryers shall be enclosed.

-Rack dryers shall have a maximum screen house filter size of 50 mesh on replacement screen house filters or new dryer screen house filters.

-The volume of grain passing through the dryer shall not exceed the manufacturer's recommended capacity.

-Dryer screens should be inspected before each dryer start-up.

(Note: Proposed changes are shown in strikethrough and underline text)

### **Grain Vacuuming (Grain Vac) Operations**

Grain vac operators must employ best management practices as necessary to reasonably prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the grain vac is being operated. These BMP are examples of reasonable practices to minimize the generation of fugitive dust emissions from grain vac operations:

-For grain loadouts use socks and drop-down spouts or sleeves, or equivalent, which extend at least 6 inches below the sides of the receiving container to minimize grain free-fall distance, except for topping off.

-Operate the vac at times when the wind direction and speed would minimize offsite impact.

-Vary the speed of the vac operations to minimize dust emissions.

-Utilize directional discharge to minimize offsite impact.

-Evaluate the use of additional control measures, such as add on controls, if needed to comply with 567 IAC 23.3(2)"c".

### **Recordkeeping Requirements**

All grain elevators subject to these BMPs shall record BMPs used during times of grain vac operation. In addition, wind speed and direction and date and time of grain vac operation shall be noted.

~~While~~ With the exception of grain vac operations, there are no other specific recordkeeping requirements associated with BMP for Group 1 facilities. However owners or operators of Group 1 facilities are encouraged to maintain records as appropriate to demonstrate that applicable BMP are being implemented.

**Administrative Rules  
JOBS IMPACT STATEMENT**

**1. BACKGROUND INFORMATION**

Agency:	Environmental Protection Commission/ Department of Natural Resources
IAC Citation:	567 IAC Chapters 22 and 23
Agency Contact:	Christine Paulson at (515) 725-9510
Statutory Authority:	Iowa Code section 455B.133
Objective:	<p>The Department of Natural Resources (Department) is proposing rule changes to amend the best management practices (BMPs) for grain elevators currently adopted by reference in administrative rules (567—22.10 (455B)). The BMPs for grain elevators are designed to reduce particulate matter emissions, especially dust that crosses the property line and may adversely affect air quality at nearby businesses or residences. The rulemaking will add to the current BMP document a list of management practices for grain vacuuming (grain vac) operations at grain storage bins. The proposed management practices were developed and recommended by a stakeholder workgroup jointly coordinated by the Department and the Agribusiness Association of Iowa (AAI).</p> <p>The Department is also proposing to adopt by reference federal air toxics standards for chemical manufacturing plants and for prepared feeds manufacturing (also known as National Emission Standards for Hazardous Air Pollutants, or NESHAP).</p> <p>The Environmental Protection Commission (Commission) had originally adopted these standards by reference in 2010. However, Executive Order (EO) 72 rescinded adoption of these standards along with rescission of the RICE NESHAP. EO 72 stated the RICE NESHAP was too costly for small utilities that maintain and operate rarely used emergency engines, and the RICE NESHAP requirements could increase electricity rates for consumers. In response to the concerns from Governor Branstad as expressed in EO 72 and concerns from other stakeholders, EPA agreed to reconsider the RICE NESHAP. Consequently, EPA updated the RICE NESHAP to provide more circumstances for emergency engines and for engines that participate in electricity management programs to operate under non-emergency conditions. The Commission adopted the updated RICE NESHAP in a previous rulemaking (see Iowa Administrative Bulletin, September 16, 2013, ARC 1014C).</p> <p>Subsequent to EO 72, the U.S. Environmental Protection Agency (EPA) revised the NESHAP standards proposed for adoption in this rulemaking. The revised NESHAP generally provide regulatory relief and clarity from the previous requirements. The Department is now requesting permission to adopt these NESHAP. Upon adoption of the NESHAP, the Department</p>

	<p>rather than EPA will implement and enforce these regulations in Iowa, thereby allowing the Department to provide compliance assistance and outreach to affected facilities as soon as possible.</p>
<p>Summary:</p>	<p><b>Grain Vac BMPs</b></p> <p>In 2007, the Department worked with AAI and other stakeholders to develop flexible groupings for grain elevators. This collaboration resulted in rules that allowed over 800 owners and operators of small grain elevators (classified as “Group 1” elevators) to complete a one-page registration form rather than applying for an air construction permit. Additionally, the rules finalized in 2007 established the BMPs for small grain elevators.</p> <p>These rule changes will amend the current BMPs for “Group 1” grain elevators, and will provide the option to include revised BMPs in the permits for new or modified “Group 2” grain elevators. Group 1 grain elevators are specifically defined as facilities with potential emission of less than 15 tons per year of particulate matter less than 10 microns in diameter (PM<sub>10</sub>) (567 IAC 22.10). Group 1 elevators are typically smaller grain elevators and are often “country grain elevators” that receive fifty percent or more of their grain from nearby farmers during harvest season. The owner or operator of a Group 1 elevator may use the BMP document and the streamlined registration process provided in 567 IAC 22.10 rather than apply for an air construction permit.</p> <p>Group 2 grain elevators have potential emissions of between 15 and 50 tons per year of PM<sub>10</sub>. In lieu of using the regular construction permit process, an owner or operator of a Group 2 elevator may complete a shorter application form specific to Group 2 elevators. The facility will receive a Group 2 permit that allows the facility to make certain changes without having to modify the permit. The BMPs included in the Group 2 permit are identical to the BMP document for Group 1 facilities. The rulemaking will affect only new or modified Group 2 facilities that apply for a Group 2 permit after the effective date of the adopted amendments.</p> <p>The rulemaking proposal will add to the current BMP document management practices specific to grain vac activities. Grain elevators that are not classified as Group 1 or Group 2 elevators are not covered under the proposed rule changes. Grain elevators classified as Groups 3 or 4 in 567 IAC 22.10, as well as other grain elevators not covered by 567 IAC 22.10, must obtain air construction permits. Construction permits include requirements specific to the facility, and may require practices similar to those in the BMPs for Group 1 or Group 2 facilities.</p>

	<p><b>NESHAP Adoption</b></p> <p>On December 21, 2012, EPA completed its reconsideration of the NESHAP for Chemical Manufacturing at Area Sources (hereafter referred to as the “6V NESHAP”), and issued final amendments. With the assistance of Iowa Renewable Fuels Association (IRFA), the Department determined that current dry-mill corn ethanol production facilities in Iowa are not subject to the 6V NESHAP. The Department has identified a small number of other chemical manufacturing facilities subject to the 6V NESHAP.</p> <p>On December 23, 2011, EPA finalized its reconsideration of the NESHAP for Prepared Feeds Manufacturing at Area Sources (hereafter referred to as the “7D NESHAP”). The 7D NESHAP affects feed mills and other facilities that use chromium and manganese in the production of animal feed. However, the revised federal regulations clarified that larger feed mills with pellet cooler operations did not need to install new emissions control if the facility had existing control equipment.</p> <p>The Department is now proposing to adopt these revised NESHAP standards.</p>
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**2. JOB IMPACT ANALYSIS**

<p><u>x</u> <i>Fill in this box if impact meets these criteria:</i></p>
<p><u>x</u> No Job Impact on private sector jobs and employment opportunities in the State.</p>
<p><u>  </u> Job Impact cannot be determined.</p>
<p>After analysis and review, the Department has determined that the proposed amendments will have no impact on private sector jobs and employment opportunities in the State.</p> <p><b>Grain Elevator BMPs</b></p> <p>Grain elevator owners and operators will likely incur costs to control particulate emissions during grain vac operations. However, these costs should be minimal and should not negatively impact jobs at grain elevators. First, the activities listed in the BMP document are simply examples. The grain elevator owner or operator may determine if management activities are necessary to reasonably prevent dust from grain vac operations from crossing the property line, and whether any of the examples included in the BMP document are appropriate for the facility. The owner or operator may choose to employ different management practices. Second, the BMPs were developed by a stakeholder group consisting of representatives from both grain elevator and grain vac vendors. The workgroup developed practical, cost-effective practices that are already being successfully implemented at grain elevators. Third, the Department expects that grain elevator owners and operators will choose to implement BMPs only as necessary, and will not implement practices at such a frequency or cost to adversely impact jobs at their facility. AAI supports the Department’s proposed rules for grain vac BMPs.</p>

**6V NESHAP**

Based on information and analysis compiled by IRFA, the Department has determined that dry-mill corn ethanol production facilities in Iowa are not subject to the 6V NESHAP, and therefore would not have regulatory costs associated with the 6V NESHAP. IRFA supports the Department adopting the 6V NESHAP.

Five other chemical manufacturing facilities have notified the Department and EPA that they are subject to the 6V NESHAP. Based on information available, it appears that two of these facilities are already complying with the 6V NESHAP. One of the facilities is currently under construction. The compliance status of the other two facilities is unknown at this time. The Department does not expect these five facilities to experience any jobs impacts resulting from the 6V NESHAP.

**7D NESHAP**

Based on notifications submitted to EPA and the survey that the University of Northern Iowa (UNI) air emissions assistance program conducted, the Department estimates that up to 80 facilities in Iowa are subject to the 7D NESHAP. The majority of these facilities have only basic housekeeping requirements. The Department estimates that 20 of these facilities are also required to control particulate emissions (a surrogate for manganese and chromium emissions) from pellet cooling operations. Most of these facilities have submitted the required notifications to EPA and the Department indicating the facilities are in compliance with the 7D NESHAP. The 7D NESHAP requires all subject facilities to undertake additional monitoring, recordkeeping, and reporting requirements. However, these requirements are not expected to negatively impact jobs at these facilities. AAI supports the Department adopting the 7D NESHAP.

*— Fill in this box if impact meets either of these criteria:*

\_\_\_\_ Positive Job Impact on private sector jobs and employment opportunities in the State.

\_\_\_\_ Negative Job Impact on private sector jobs and employment opportunities in the State.

*Description and quantification of the nature of the impact the proposed rule will have on private sector jobs and employment opportunities:*

*Categories of jobs and employment opportunities that are affected by the proposed rule:*  
Country grain elevators and other grain elevators that meet the criteria for Group 1 or Group 2 elevators under rule 567 IAC 22.10. Feed mills, chemical manufacturing facilities, and other facilities potentially affected by the 6V or 7D NESHAPs.

*Number of jobs or potential job opportunities:*  
Cannot be determined at this time.

*Regions of the state affected:*  
The 6V and 7D NESHAP will apply in all regions of the state. The grain vac BMPs will apply in all areas of the state except Polk and Linn Counties. (Polk County and Linn County have their own state-approved air quality programs that do not include special permitting or BMPs for grain elevators.)

*Additional costs to the employer per employee due to the proposed rule: (if not possible to determine, write "Not Possible to Determine.")*  
Not possible to determine.

### **3. COST-BENEFIT ANALYSIS**

The Agency has taken steps to minimize the adverse impact on jobs and the development of new employment opportunities before proposing a rule. See the following Cost-Benefit Analysis:

No other less intrusive or expensive method exists for achieving the purpose of the rule change. The Department worked with stakeholders to determine the best way to address air quality concerns from grain vac operations at grain elevators. The workgroup determined that revising the BMP manual adopted by reference into state rules was the best method for achieving this goal. The Department worked closely with IRFA and AAI to resolve potential applicability issues with the 6V NESHAP and the 7D NESHAP, and waited until EPA completed its reconsiderations before proposing re-adoption of these standards. AAI and IRFA support the Department's proposed rules.

## Administrative Rule Fiscal Impact Statement

Date: February 28, 2014

**Agency:** Environmental Protection Commission/Department of Natural Resources

**IAC Citation:** 567 IAC subparagraph 22.10(3)"a"(2) and subrule 23.1(4)

**Agency Contact:** Christine Paulson

### Summary of the Rule:

#### Grain Elevators

The Department of Natural Resources (Department) is proposing rule changes to amend the best management practices (BMPs) for grain elevators currently adopted by reference in administrative rules (567—22.10 (455B)). The BMPs for grain elevators are designed to reduce particulate matter emissions, especially dust that crosses the property line and may adversely affect air quality at nearby businesses or residences. The rulemaking will add to the current BMP document a list of management practices for grain vacuuming (grain vac) operations at grain storage bins. The proposed management practices were developed and recommended by a stakeholder workgroup jointly coordinated by the Department and the Agribusiness Association of Iowa (AAI).

In 2007, the Department worked with AAI and other stakeholders to develop flexible groupings for grain elevators. This collaboration resulted in rules that allowed over 800 owners and operators of small grain elevators (classified as "Group 1" elevators) to complete a one-page registration form rather than applying for an air construction permit. Additionally, the rules finalized in 2007 established the BMPs for small grain elevators.

The rulemaking will amend the current BMPs for "Group 1" grain elevators, and will provide the option to include revised BMPs in the permits for new or modified "Group 2" grain elevators. Group 1 elevators are typically smaller grain elevators and are often "country grain elevators" that receive fifty percent or more of their grain from nearby farmers during harvest season. An owner or operator of a Group 1 elevator may use the BMP document and the streamlined registration process provided in rule 567 IAC 22.10 rather than applying for an air construction permit. In lieu of using the regular construction permit process, an owner or operator of a Group 2 elevator may complete a shorter application form specific to Group 2 elevators. The facility will receive a Group 2 permit that allows the facility to make certain changes without having to modify the permit. The BMPs included in the Group 2 permit are identical to the BMP document for Group 1 facilities. The rulemaking will affect only new or modified Group 2 facilities that apply for a Group 2 permit.

## **Summary of the Rule (con't.):**

### **Air Toxics Standards**

The Department is also proposing to adopt by reference federal air toxics standards for chemical manufacturing plants and for prepared feeds manufacturing (also known as National Emission Standards for Hazardous Air Pollutants, or NESHAP).

The Environmental Protection Commission (Commission) had originally adopted these standards by reference in 2010. However, Executive Order (EO) 72 rescinded adoption of these standards along with rescission the RICE NESHAP. EO 72 stated the RICE NESHAP was too costly for small utilities that maintain and operate rarely used emergency engines, and the RICE NESHAP requirements could increase electricity rates for consumers. In response to the concerns from Governor Branstad as expressed in EO 72 and concerns from other stakeholders, EPA agreed to reconsider the RICE NESHAP. Consequently, EPA updated the RICE NESHAP to provide more circumstances for emergency engines and for engines that participate in electricity management programs to operate under non-emergency conditions. The Commission adopted the updated RICE NESHAP in a previous rulemaking (see Iowa Administrative Bulletin, September 16, 2013, ARC 1014C).

Subsequent to EO 72, the EPA revised the NESHAP standards proposed for adoption in this rulemaking. EPA's updated standards provide improved clarity and regulatory flexibility over the previous standards.

On December 21, 2012, EPA completed its reconsideration of the NESHAP for Chemical Manufacturing at Area Sources (hereafter referred to as the "6V NESHAP"), and issued final amendments. With the assistance of the Iowa Renewable Fuels Association (IRFA), the Department determined that current dry-mill corn ethanol production facilities in Iowa are not subject to the 6V NESHAP. The Department has identified a small number of other chemical manufacturing facilities subject to the 6V NESHAP.

On December 23, 2011, EPA finalized its reconsideration of the NESHAP for Prepared Feeds Manufacturing at Area Sources (hereafter referred to as the "7D NESHAP"). The 7D NESHAP affects feed mills and other facilities that use chromium and manganese in the production of animal feed. However, the revised federal regulations clarified that feed mills with pellet cooler operations did not need to install new emissions control if the facility had existing control equipment.

The Department is now requesting permission to adopt these revised NESHAP standards. The revised NESHAP generally provide regulatory relief and clarity from the previous requirements. Additionally, upon adoption of the NESHAP, the Department rather than EPA will implement and enforce these regulations in Iowa, thereby allowing the Department to provide compliance assistance and outreach to affected facilities as soon as possible.

*Fill in this box if the impact meets these criteria:*

No Fiscal Impact to the State.

Fiscal Impact of less than \$100,000 annually or \$500,000 over 5 years.

Fiscal Impact cannot be determined.

Brief Explanation: The Department will use existing budget and resources to implement the rule.

*Assumptions:*

*Describe how estimates were derived:*

*Estimated Impact to the State by Fiscal Year*

	<u>Year 1 (FY 2011)</u>	<u>Year 2 (FY 2012)</u>
<b>Revenue by Each Source:</b>		
GENERAL FUND	0\$	0\$
FEDERAL FUNDS	0\$	0\$
Other (specify)	0\$	0\$
	<hr/>	<hr/>
	0\$	0\$
<b>TOTAL REVENUE</b>		
<b>Expenditures:</b>		
GENERAL FUND	0\$	0\$
FEDERAL FUNDS	0\$	0\$
Other (specify) Air Contaminant Fee		
	<hr/>	<hr/>
<b>TOTAL EXPENDITURES</b>		

**NET IMPACT**

This rule is required by State law or Federal mandate.

*Please identify the state or federal law:*

The specific rule changes for grain elevators are not required. However, the rule changes are authorized under Iowa Code section 455B.133. The NESHAP are authorized under the U.S. Clean Air Act Section 112, as codified in 40 Code of Federal Regulations Part 63.

Funding has been provided for the rule change.

*Please identify the amount provided and the funding source:*

Funding has not been provided for the rule.

*Please explain how the agency will pay for the rule change:*

The Department will utilize existing resources at this time.

*Fiscal impact to persons affected by the rule):*

**Grain Vac BMPs**

Grain elevator owners and operators will likely incur costs to control particulate emissions during grain vac operations. However, these costs should be minimal. First, the activities listed in the BMP document are simply examples. The grain elevator owner or operator may determine if management activities are necessary to reasonably prevent dust from grain vac operations from crossing the property line, and whether any of the examples included in the BMP document are appropriate for the facility. The owner or operator may choose to employ different management practices. Second, the BMPs were developed by a stakeholder group consisting of representatives from both grain elevator and grain vac vendors. The workgroup developed practical, cost-effective practices that are already being successfully implemented at some grain elevators. Third, the Department expects that grain elevator owners and operators will choose to implement BMPs only as necessary, and will not implement practices at such a frequency or cost to overly burden their facility. AAI supports the proposed grain vac BMPs.

**6V NESHAP**

Based on information and analysis compiled by IRFA, the Department has determined that dry-mill corn ethanol production facilities in Iowa are not subject to the 6V NESHAP, and therefore would not have regulatory costs associated with the 6V NESHAP. Five other chemical manufacturing facilities have notified the Department and EPA that they are subject to the 6V NESHAP. Based on information available, it appears that two of these facilities are already complying with the 6V NESHAP. One of the facilities is currently under construction. The compliance status of the other two facilities is unknown at this time. IRFA supports the Department adopting the 6V NESHAP.

**7D NESHAP**

Based on notifications submitted to EPA and the survey that UNI conducted, the Department estimates that up to 80 facilities in Iowa are subject to the 7D NESHAP. The majority of these facilities have only basic housekeeping requirements. The Department estimates that 20 facilities are required to control particulate emissions (a surrogate for manganese and chromium emissions) from pellet cooling operations. Most of these facilities have submitted the required notifications to EPA and the Department indicating the facilities are in compliance with the 7D NESHAP. The 7D NESHAP requires all subject facilities to undertake additional monitoring, recordkeeping, and reporting requirements. AAI supports the Department adopting the 7D NESHAP.

*Fiscal impact to Counties or other Local Governments (required by Iowa Code 25B.6):*

**Grain Elevators:** The Department expects minimal or no impact to counties or cities because local government entities typically do not operate grain elevators. However, if a local government entity not located in either Polk or Linn County does operate a grain elevator, the fiscal impact will be the same as described above for privately or cooperatively operated grain elevators. (Polk County and Linn County have their own state-approved air quality programs that do not include special permitting or BMPs for grain elevators.)

**Air Toxics Standards:** Impacts to facilities in Linn or Polk County potentially affected by the 6V or 7D NESHAP would be the same as noted above for other facilities in the state.