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CERCLA and EPCRA Reporting Requirements for Air Releases of Hazardous Substances from Animal Waste at Farms

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Attention!

Farms with continuous releases do not have to submit their initial continuous release notification until the DC Circuit Court of Appeals issues its order, or mandate, enforcing the Court's opinion of April 11, 2017. No reporting is necessary until the mandate is issued.

EPA will update this website once the mandate is issued and as new information becomes available.

To expedite your initial continuous release notification to the National Response Center, you may use the temporary email option. This option avoids potential large call volumes and delays. It allows one email notification for owners/operators with multiple farms.

Overview

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Overview

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Emergency Planning and Community Right to Know Act (EPCRA) require facilities to report releases of hazardous substances that are equal to or greater than their reportable quantities (RQ) within any 24-hour period. Following a hazardous substance reportable release, a facility owner or operator must notify federal authorities under CERCLA and state and local authorities under EPCRA.

Reporting Exemption for Animal Waste and Resulting Litigation

On December 18, 2008, EPA published a final rule that exempted most farms from certain release reporting requirements in CERCLA and EPCRA. Specifically, the rule exempted farms releasing hazardous substances from animal waste to the air above threshold levels from reporting under CERCLA. For EPCRA reporting, the rule exempted reporting of such releases if the farm had fewer animals than a large concentrated animal feeding operation (CAFO).

In short, all farms were relieved from reporting hazardous substance air releases from animal waste under CERCLA, and only large CAFOs were subject to EPCRA reporting.

A number of citizen groups challenged the validity of the final rule in the U.S. Court of Appeals for the District of Columbia Circuit. On April 11, 2017, the Court struck down the final rule, eliminating the reporting exemptions for farms. EPA sought additional time from the Court to delay the effective date so that EPA could develop guidance materials to help farmers understand their reporting obligations.

No reporting is required until the Court issues its order, or mandate, enforcing the April 11, 2017, decision. EPA will update this guidance to provide farmers with notice of when the mandate issues and reporting requirements begin. Please check this website frequently. **Once the mandate is issued, farms should submit an initial continuous release notification to the National Response Center for qualifying releases that occur within a 24-hour period.**

Purpose

EPA developed this interim guidance to assist farms in complying with requirements to report air releases of hazardous substances from animal waste under CERCLA and EPCRA. EPA welcomes comments and suggestions from the regulated community and the public on these resources and other additional resources that should be included here. Please email comments or suggestions by November 24, 2017, to: CERCLA103.guidance@epa.gov. EPA will revise this guidance, as necessary, to reflect additional information to assist farm owners and operators to meet reporting obligations.

Frequent Questions

Questions?

For compliance assistance, please call the EPCRA, RMP & Oil Information Center at: 1-800-424-9346.

What are my requirements to report air releases from animal waste under CERCLA section 103?

Farm owners/operators must comply with CERCLA section 103 reporting requirements for air releases of hazardous substances from animal waste at their farms.

If a farm has air releases of hazardous substances from animal wastes that are equal to or greater than their reportable quantities (RQs) within any 24-hour period, the farm may follow a streamlined reporting process known as "continuous release reporting." This requires the facility owner or operator to:

- Notify the NRC. This may be done by [email](mailto:NRC-CERCLA-EPCRA-REPORT@uscg.mil) (NRC-CERCLA-EPCRA-REPORT@uscg.mil). Please identify your reportable release as an **"initial continuous release notification."**
- Submit an initial written notification to the [EPA Regional Office](#); and
- One year later submit an additional follow-up written notification to the [EPA Regional Office](#).

For additional information on continuous release reporting, see: [How do I report a continuous release under CERCLA?](#)

Email should be used by farms for the initial continuous release notification. For other types of releases that require immediate response, please call the NRC at 1-800-424-8802.

For compliance assistance, please call the EPCRA, RMP & Oil Information Center at: 1-800-424-9346.

What are my requirements to report under EPCRA section 304?

EPA interprets the statute to exclude farms that use substances in "routine agricultural operations" from reporting under EPCRA section 304. For more information, see: [EPCRA Q&A](#). EPA intends to conduct a rulemaking to clarify its interpretation of "used in routine agricultural operations" as it pertains to EPCRA reporting requirements.

When do I have to comply?

Farmers should begin to comply with reporting requirements after the DC Circuit Court of Appeals issues its order, or mandate, enforcing the April 11, 2017, decision. Once the mandate is issued, farms releasing hazardous substances to air from animal wastes, equal to or greater than their reportable quantities, within any 24-hour period, must notify the NRC. For farms with continuous releases, this means submitting an [initial continuous release notification](#).

For compliance assistance, please call the EPCRA, RMP & Oil Information Center at: 1-800-424-9346.

What substances need to be reported?

Typical hazardous substances associated with animal wastes include ammonia and hydrogen sulfide. Both ammonia and hydrogen sulfide have a reportable quantity of 100 lbs. If a farm releases ammonia and/or hydrogen sulfide in amounts \geq the reportable quantity (100 lbs) within a 24-hour period, then the farm owner or operator must notify the [NRC](#). For a complete list, see: [CERCLA hazardous substances and their reportable quantities \(RQs\)](#).

Do I have to report when I apply fertilizers or pesticides to crops?

No, farm owners/operators do not need to report the normal application of fertilizers (including normal application of manure as a fertilizer) or the handling, storage or application of pesticide products registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). However, under CERCLA section 103, any spills or accidents involving these substances must be immediately reported to the NRC when they meet or exceed the reportable quantity.

Do I have to report if I am participating in the EPA's Animal Feeding Operation Air Compliance Agreement?

At this time, farm owners/operators in compliance with their Animal Feeding Operation Air Compliance Agreement ([70 FR 4958](#)) are not expected to report air releases of hazardous substances from animal wastes under CERCLA and EPCRA. Per their Agreement, participants must report air releases of hazardous substances equal to or exceeding the hazardous substances' reportable quantities under CERCLA when EPA completes the National Air Emissions Monitoring Study.

For additional information on EPCRA reporting, see: [EPCRA Q&A](#).

How do I estimate the releases for reporting?

Some farms that raise animals will have reportable releases of ammonia and/or hydrogen sulfide (i.e. release of \geq 100 lbs in a 24-hour period) from animal wastes. These [resources](#) may assist farmers in estimating emissions.

EPA recognizes that it will be challenging for farmers to report releases from animal wastes because there is no generally accepted methodology for estimating emission quantities at this time. CERCLA section 103 allows "continuous releases" to be reported in ranges. EPA understands that farmers may need to report

their releases in broad ranges that reflect the high degree of uncertainty and variability of these releases.

How can I reduce emissions?

EPA and United States Department of Agriculture (USDA) developed a [reference guide](#) that provides options for improving air quality from livestock and poultry operations. The guide provides a compilation of conservation measures for reducing air pollutant emissions and/or reducing air quality impacts from livestock and poultry operations.

Who do I notify if I need to report?

You must [immediately notify the NRC](#) when you have a release of any CERCLA hazardous substance at or above its reportable quantity within any 24-hour period. However, there is an exception for the normal application of fertilizers or the handling, storage or application of pesticide products as described [above](#).

Do I have to notify the NRC every time my emissions exceed the reportable quantity in a 24-hour period?

No. If your farm has releases that are continuous and stable in quantity and rate, you can follow a streamlined reporting process known as "continuous release reporting." EPA considers emissions from animal waste to be continuous and stable in quantity and rate, and therefore eligible for this streamlined reporting option.

For more information on the regulation and guidance for continuous release reporting requirements, see: [Resources](#).

Can I request an extension?

No, CERCLA section 103 requires the facility owner or operator to immediately notify the NRC of a reportable release of a hazardous substance.

The one exception is for farm owners/operators participating in the Agency's Animal Feeding Operation Air Compliance Agreement, and that are in compliance with their Agreements. For more information, see: [Do I have to report if I am participating in the EPA's Animal Feeding Operation Air Compliance Agreement?](#)

How do I report a continuous release under CERCLA?

You may follow these steps to report air emissions from animal wastes (e.g. ammonia and hydrogen sulfide releases):

Step 1:

Notify the NRC. For the purposes of this initial continuous release notification, please email the NRC at: NRC-CERCLA-EPCRA-REPORT@uscg.mil. The [email](#) must clearly state this is an "initial continuous release notification."

Due to the potential for large call volumes to the NRC an email notification will expedite your notification and will help to avoid expected long hold delays once reporting for farmers begins. An email notification should also help ensure that other types of emergency calls which may require immediate attention are expeditiously received by the NRC and not held up by call delays or system crashes. EPA and the NRC consider an email notification, in this instance, sufficient to comply with the immediate notification requirement for a continuous release under CERCLA section 103.

In order to qualify as a continuous release notification, please note in the subject line of the e-mail that this

is an **"initial continuous release notification."**

Include the following in your [email](mailto:NRC-CERCLA-EPCRA-REPORT@uscg.mil) (NRC-CERCLA-EPCRA-REPORT@uscg.mil):

- Name of the farm;
- Location of the farm (e.g., name of city/town and state);
- Name(s) of the hazardous substance(s) released

You can submit information for multiple facilities (i.e., farms) in one [email](mailto:NRC-CERCLA-EPCRA-REPORT@uscg.mil) (NRC-CERCLA-EPCRA-REPORT@uscg.mil).

Note: The NRC does not require personally identifiable information, such as an address for a private residence. As an alternative, a generic location (such as name of city/town and state) may be sufficient.

You will receive an automatic response email from the NRC with a single identification number (CR-ERNS) for your farm(s). Include the CR-ERNS number on the follow-up written notification report that goes to your [EPA Regional Office](#) discussed in Step 2 below. The single CR-ERNS number provided should be used for each facility included in the email.

It may take some time to receive the automated notice from the NRC, so please be patient. Also, check your email's spam or junk folders before attempting to send your email again.

For compliance assistance, please call the EPCRA, RMP & Oil Information Center at: 1-800-424-9346.

Step 2: Submit an initial written notification to the [EPA Regional Office](#).

Submit an initial written notification to the [EPA Regional Office](#) for the area where the release occurs, within 30 days of the call to the NRC. Note: Unlike the initial continuous release notification, each facility needs to submit a separate continuous release reporting form.

Farms can use this [continuous release reporting form](#) to provide the initial written notification. Please note that this continuous release form is intended for multiple sectors and provides directions to send information to the EPA Regional Offices and to LEPCs and SERCs. **Farms not reporting under EPCRA should not send information to the LEPCs and SERCs.**

EPA is developing a streamlined continuous release reporting form for farm facility owners and operators and plans to make this form available once it is finalized.

Step 3: A one-time first anniversary follow-up [report](#) to the [EPA Regional Office](#).

Within 30 days of the first anniversary date of the initial written notification (i.e., the first continuous release report), the person in charge of the farm must submit a one-time anniversary report to the [EPA Regional Office](#). The farm owner/operator must verify and update the information initially submitted for each of the hazardous substances reported to the NRC and to the [EPA Regional Office](#). This follow-up report should be re-certified by the person in charge of the farm.

EPA's guide [Reporting Requirements for Continuous Releases of Hazardous Substances](#) includes forms to assist you with developing written reports. The guide provides an overview of the information required for the initial and first anniversary follow-up reports.

If I have multiple facilities (i.e., farms), can I make one notification that addresses all of my facilities?

In making your initial notification, you can submit information for multiple facilities in one [email](#)

(NRC-CERCLA-EPCRA-REPORT@uscg.mil). List the name and location of each farm, as well as the associated name(s) of hazardous substance(s) released. However, if you are calling the NRC, then you can only provide one report per phone call. For the follow-up written notification to EPA, each facility should be reported separately.

You will receive an automatic response email from the NRC with a single identification number (CR-ERNS) for your farm(s). Include the CR-ERNS number on the follow-up written notification report that goes to your EPA Regional Office discussed in Step 2 below. The single CR-ERNS number provided should be used for each facility included in the email.

Are there additional continuous release reporting requirements?

There are two additional types of continuous release reporting requirements:

- statistically significant increase (SSI) notification and
- notification of changes to previously submitted continuous release information.

You must immediately notify the NRC of any statistically significant increases (SSI) or of a change in previously submitted release information. This is most likely to be triggered by:

- an increase in the number of animals maintained on the farm (beyond the range used for the initial report) or
- a significant change (or disruption) in waste handling systems or procedures.

This is an ongoing requirement.

What is an SSI?

An SSI is an episodic release of a hazardous substance that exceeds the release quantity described in the upper bound of the normal range of the facility's continuous release report. The normal range includes all releases of a hazardous substance (from all sources at the facility) occurring over any 24-hour period under normal operating conditions during the preceding year.

Only those releases that are both continuous and stable in quantity and rate may be included in the normal range.

How often do I need to estimate emissions?

You must annually review emissions from the farm. You'll also need to estimate emissions following any significant changes in operations that may result in SSI in emissions.

A farm owner/operator filed the continuous release and one-time anniversary report to comply with CERCLA section 103 for their facility before the 2008 exemption. If the information is still valid, do they have to file again?

No, if there have been no SSI in emissions or other changes to the report filed before 2008, then the farm owner/operator need not submit another report.

Resources

[40 CFR part 302 - Designation, Reportable Quantities, and Notification](#)

[Reporting Requirements for Continuous Releases of Hazardous Substances](#)

Emission Estimates

Farm owners/operators may consider any of the resources provided in this section (or any other studies available to you) for estimating releases. You can also coordinate with your trade associations or the land-grant universities in your area (see Appendix A.3: List of AFO Air Quality Programs & Land-Grant Universities available in [reference guide](#)).

You may establish estimated quantities of releases by relying on:

- past release data,
- engineering estimates,
- your knowledge of the facility's operations and release history, or
- your best professional judgment.

Monitoring data is not required.

Disclaimer: This listing does not constitute EPA endorsement. These are provided solely as available resources for farms to use while EPA finalizes its methodologies for estimating air emissions of ammonia and hydrogen sulfide from animal wastes. Farms may use any other approaches that are available to develop these estimates.

Dairy Operations

To estimate ammonia and hydrogen sulfide emissions from dairy operations, see: [Dairy Report worksheet](#) (3 pp, 87 K, [About PDF](#)) (go to page 3) EXIT . Emission estimates are inclusive of ammonia emissions from animal pen surfaces and the runoff holding pond(s). Ammonia emission rates vary between summer and winter months. The worksheet indicates that hydrogen sulfide levels are fairly stable throughout the year.

Although the Dairy Report includes a draft letter and template for continuous release reports for dairy operations, please use the [continuous release reporting form](#).

(Source: These emission estimates are based on research data collected by Texas AgriLife Research, Texas AgriLife Extension Service, Texas A&M University, USDA-Agricultural Research Service, and West Texas A&M University.)

Swine operations

To estimate ammonia and hydrogen sulfide emissions from swine operations, see: [Swine Report worksheet](#) (4 pp, 91 K, [About PDF](#)) (go to page 3) EXIT . The worksheet considers typical confinement housing and manure storages that are located in a temperate climate. Emission rates are provided for shallow and deep storage pits.

Although the Swine Report worksheet includes a draft letter and template for continuous release reports for swine operations, please use the [continuous release reporting form](#).

(Source: The emissions estimates are derived from research reported by:

Gay, S.W., D.R. Schmidt, C.J. Clanton, K.A. Janni, L.D. Jacobson, S. Weisberg. 2003. Odor, Total Reduced Sulfur and Ammonia Emissions from Animal Housing Facilities and Manure Storage Units in Minnesota. Applied Engineering in Agriculture, 19(3) 347-360, ASABE, St. Joseph, MI.

and:

Jacobson, L.D., A.J. Heber, S.J. Hoff, Y. Zhang, D.B. Beasley, J.A. Koziel, and B.P. Hetchler. 2006. Aerial Pollutants Emissions from Confined Animal Buildings. Summary report, Ag Air Workshop, USDA-IFAFS research and demonstration program.) This study indicates that these values are a good faith estimate of

emissions from swine operations using typical confinement housing and manure storages and located in a temperate climate.)

Poultry Operations

Ammonia and Hydrogen Sulfide Emission Rates for Poultry Operations (3 pp, 36 K, [About PDF](#)) [EXIT](#) provides ammonia and hydrogen sulfide emission rates for poultry operations, including broilers, laying hens and turkeys. This study lists emission rates for various housing type for each species. It also includes instructions for using the emission rates to calculate emissions for these substances, as well as examples on calculating emissions.

(Source: Hongwei Xin, Robert Burns, and Hong Li. January 2009. Ammonia (NH3) and Hydrogen Sulfide (H2S) Emission Rates for Poultry Operations. Agricultural and Biosystems Engineering Dept., Iowa State University, Ames, Iowa.)

General emission estimates for ammonia from beef, dairy, horse, swine, poultry operations

An ammonia emissions estimator (2 pp, 16 K, [About PDF](#)) [EXIT](#) is available for beef, dairy, horse, poultry (broiler, turkey, and ducks), and swine. This study was completed by the University of Nebraska on ammonia losses from animal housing facilities in various conditions (i.e. open dirt lots, on cool and humid days) for different species. Example ammonia emissions estimator worksheets are available for swine and cattle:

- Swine example (2 pp, 31 K, [About PDF](#)) [EXIT](#) for calculating emissions of ammonia for a farm that houses 5,000 swine.
- Cattle example (2 pp,33 K, [About PDF](#)) [EXIT](#) for calculating emissions of ammonia for a beef feedlot with 1,000 head of cattle.

(Source: Rick Stowell and Rick Koelsch, University of Nebraska.)

A summary of the resources above are included in the following table:

The following links exit the site [EXIT](#)

Resources for Emissions Estimates

Type	Ammonia	Hydrogen Sulfide	Inputs
Beef	<p><u>Ammonia emissions estimator</u> (2 pp, 31 K, About PDF)</p> <p><u>Cattle example</u> (2 pp,33 K, About PDF)</p>	--	<p>- Number of animals</p> <p>- Animal housing</p> <p>- Manure storage</p>

Type	Ammonia	Hydrogen Sulfide	Inputs
Dairy	Dairy Report worksheet (3 pp, 87 K, About PDF) (see page 3)	Dairy Report worksheet (3 pp, 87 K, About PDF) (see page 3)	- Number of animals - Season
	Ammonia emissions estimator (2 pp, 16 K, About PDF)	--	- Number of animals - Animal housing - Manure storage
Swine	Swine Report worksheet (4 pp, 91 K, About PDF) (see page 3)	Swine Report worksheet (4 pp, 91 K, About PDF) (see page 3)	- Number of swine - Facility type - Manure system
	Ammonia emissions estimator (2 pp, 16 K, About PDF) Swine example (2 pp, 31 K, About PDF)	--	- Number of animals - Animal housing - Manure storage
Poultry	Ammonia and Hydrogen Sulfide Emission Rates for Poultry Operations (3 pp, 36 K, About PDF)	Ammonia and Hydrogen Sulfide Emission Rates for Poultry Operations (3 pp, 36 K, About PDF)	- Number of animals - Poultry type - Housing type

Type	Ammonia	Hydrogen Sulfide	Inputs
	<p><u>Ammonia emissions estimator</u> (2 pp, 16 K, About PDF)</p>	--	<ul style="list-style-type: none"> - Number of animals - Animal housing - Manure storage
Horse	<p><u>Ammonia emissions estimator</u> (2 pp, 16 K, About PDF)</p>	--	<ul style="list-style-type: none"> - Number of animals - Animal housing - Manure storage

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