



How to Submit an EPCRA Continuous Release Report for Large CAFO Farms That Have Not Signed the 2005 EPA Air Emissions Compliance Agreement

Curt Gooch and Karl Czymmek – Cornell University

(Consider printing these instructions for your own records)

Overview

According to long-standing federal law, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Emergency Protection and Community Right-to-Know Act (EPCRA), require facilities of any kind that emit specified chemicals (such as ammonia or hydrogen sulfide) to report such emissions that exceed threshold quantities to local, state and federal agencies. On January 20, 2009, new exemptions from the reporting requirements of these laws became effective for almost all animal agricultural operations (<http://www.epa.gov/emergencies/content/epcra/index.htm>). Large CAFO's were not granted an exemption for EPCRA reporting requirements and the current rule requires those farms that did not sign the 2005 EPA Air Emissions Compliance Agreement (CA) to make a good faith estimate of their emissions. Farms that are participating in the CA are bound to the terms of that agreement, i.e., they agree to estimate their emissions within 18 months (about two years from now) of the conclusion of the current National Air Emissions Monitoring Study and report emissions as necessary at that time.

EPCRA is designed to help emergency responders be aware of hazardous chemicals in the area. EPCRA applies to farm emissions of substances like ammonia and hydrogen sulfide, even though they originate from natural processes associated with animal digestion and manure decomposition and emission levels are at extremely low concentrations. Due to many outstanding questions and uncertainties with the EPCRA ruling, producers and advisors will need to make some judgment calls when working through this process. The reports require **good-faith estimates** of the reportable emissions and can be based on best professional judgment. If you decide to report, we suggest using the attached Continuous Release Report Form from EPA (see instructions, below).

Reporting air emissions raises important legal considerations. Producers should consider seeking legal counsel before reporting emissions.

EPCRA defines reporting thresholds for hundreds of substances; manure related emissions of primary concern under EPCRA are ammonia and hydrogen sulfide. Ammonia and hydrogen sulfide each have a reporting threshold of 100 lbs. in any 24-hour period.

A farm should consider submitting an EPCRA continuous release report if meeting all of the following criteria:

1. has confined animal numbers equal to or greater than any of the large CAFO size thresholds, below;
 - 700 mature dairy cows, whether milked or dry;
 - 1,000 veal calves;
 - 1,000 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;
 - 2,500 swine each weighing 55 pounds or more;

- 10,000 swine each weighing less than 55 pounds;
 - 500 horses;
 - 10,000 sheep or lambs;
 - 55,000 turkeys;
 - 30,000 laying hens or broilers, if the farm uses a liquid manure handling system;
 - 125,000 chickens (other than laying hens), if the farm uses other than liquid manure handling system;
 - 82,000 laying hens, if the farm uses other than a liquid manure handling system;
 - 30,000 ducks (if the farm uses other than a liquid manure handling system);
 - 5,000 ducks (if the farm uses a liquid manure handling system)
2. is estimated to release more than 100 lbs in any 24-hour period of ammonia or hydrogen sulfide; and
 3. did not sign the EPA Air Quality Compliance Agreement (CA), circa 2005.

The continuous release report consists of a telephone call to your Local Emergency Planning Committee (LEPC) and the State Emergency Response Commission (SERC), followed by a written report to the LEPC and SERC within 30 days of the telephone report (EPCRA does not require reporting directly to EPA). A follow-up written report is due to the LEPC and SERC by the first anniversary of the initial written report or when emissions exceed the upper bounds reported due to changes such as new manure storage and/or increase in cow numbers over the course of the year. The instructions below provide guidance for this process.

Part 1: Emission estimation

EPA guidelines indicate that upper and lower bounds of emissions are required to be reported, and any increases beyond the upper bounds require an updated report. Farms may consider estimating emissions based on the capacity of their facilities and be prepared to file follow-up reports when emissions exceed the upper bound in the original report.

Ammonia emissions

Due to the number of variables involved in estimating air emissions from animal agricultural facilities, there is more than one way to make a good faith estimate of ammonia emissions. Specifically for ammonia estimates, we have evaluated a number of tools and suggest that farmers use the University of Nebraska-Lincoln (UNL) Ammonia Emission Estimator; **dairy producers can use the dairy-specific version of the University of Nebraska-Lincoln tool developed by Cornell PRO-DAIRY ([click here to access tool](#))** to perform a good-faith emission estimate for ammonia.

Hydrogen sulfide emissions

There is very little information about hydrogen sulfide emissions in published scientific literature. Therefore, it is our position that there is not enough information to form a sound technical basis to develop a good-faith estimate of hydrogen sulfide emission **for dairy farms**. Further, we have carefully evaluated several limited data sources and based on this review, we believe it is unlikely that any New York dairies have nearly enough animals to trigger the reportable quantity of 100 pounds of hydrogen sulfide in any 24-hour period. While Cornell will not be offering an estimation method for hydrogen sulfide at this time, this does not preclude the use of your own estimation method at your discretion.

Emission information for livestock farms other than dairies

For livestock farms other than dairies, the following sites provide estimation information for ammonia and/or hydrogen sulfide:

- University of Nebraska – Lincoln: <http://water.unl.edu/emissionsrule>
- University of Minnesota: www.manure.umn.edu/applied/air_quality.html
- University of Illinois: www.livestocktrail.uiuc.edu/manure/paperDisplay.cfm?ContentID=10027
- Iowa State University: www.extension.iastate.edu/airquality/cerclaepcra.html

What is a facility for my farm?

The upper and lower bound emission estimates and the EPCRA report (necessary if the estimates are greater than the 100 lbs. in a 24-hour period) should be completed per facility, with all cows and manure storage structures at a location aggregated for a total emission value for the facility. Therefore, EPCRA reporting for a “facility” (hereafter called a farmstead) generally includes barns, barnyards, manure storage structures, etc., located on a single site or on contiguous or adjacent sites owned and controlled by the same person. Applying “adjacent” and “contiguous” to the many different farm configurations found in New York State will require judgment by the planner and farmer. To support your decision, consider the scenarios, below:

Large CAFO Scenario		How many farmsteads and reports to submit?
1	A farm consists of all barns and manure handling/storage located in a single farmstead.	This scenario represents one farmstead, so if an emission estimate is above the reportable quantity threshold, one EPCRA report is required. If below threshold, no report is required.
2	A farm consists of main barns and manure storage on one side of road and adjacent youngstock barns located immediately across the road.	This scenario can also represent one farmstead, so if an emission estimate is above threshold, one EPCRA report is required. If below threshold, no report is required.
3	A farm consisting of multiple, separate sites, e.g. main barns and manure storage at one farmstead and youngstock barns and another manure storage located at a second farmstead a mile away (even if the second farmstead is not a Large CAFO on its own).	This scenario could represent two farmsteads. If emission estimates for both farmsteads are each above the threshold, then two reports are required. If only one farmstead is estimated above threshold, then only one report is required to cover that farmstead. If neither is above threshold, then no reports are required.
4	A farm consists of main barns and manure storage in one location, a set of separate youngstock barns located a mile away, and a satellite manure storage located a few miles away from all farmsteads.	This scenario represents two farmsteads, but separating the satellite storage losses from housing losses is difficult. Therefore, emissions from the satellite manure storage will need to be attributed to one of the other sites at this time (as more data becomes available, future guidance will attempt to improve this method). A separate report is required for each farmstead that triggers the reportable quantity threshold.

Once the number of farmsteads is determined, the next step is to use an emission estimation tool for each farmstead. As indicated above, dairy producers can use the dairy-specific version of the UNL tool developed by Cornell PRO-DAIRY ([click here to access tool](#)).

If the upper bound emission estimate for any farmstead is greater than 100 lbs of ammonia or hydrogen sulfide per any 24-hour period, continue to Part 2 and complete the reporting process for that farmstead. A separate, full EPCRA report should be filed for each farmstead exceeding the threshold. If estimated high daily emission(s) are less than 100 lbs per any 24-hour period, filing a report is not required. In either case, it is recommended to document and file all emission estimates performed in your own records.

Part 2: Find LEPC contact information

Gather telephone and mailing address for your Local Emergency Planning Committee (LEPC) (http://www.semo.state.ny.us/uploads/LEPC_02_06_07.pdf) and write for your records, below.

NOTE: The web site, above, is the best available information as of February 18, 2009. It will be updated if better LEPC contact information becomes available.

Address of your LEPC	
Phone number of your LEPC	

The address and phone for the State Emergency Response Commission (SERC) is provided below.

NOTE: The address and phone, below, is the best available information as of February 18, 2009. It will be updated if better SERC contact information becomes available.

SERC Address	State Emergency Response Commission (SERC) New York State Emergency Management Office 1220 Washington Avenue, Building 22, Suite 101 Albany, NY 12226-2251
SERC Phone Number	(518) 292-2200

Part 3: Telephone report to LEPC and SERC

Telephone your Local Emergency Planning Committee (LEPC) and the State Emergency Response Commission (SERC) and inform them that you are calling to comply with the EPCRA reporting requirement. Below is an example of what a dairy farm owner/representative might say to them:

“My name is {your name} and I am calling on behalf of {name of your farm} in a good faith effort to comply with EPCRA continuous release reporting requirements. The {dairy/poultry/beef/swine/equine} farm located at {address; include name and address of other facilities if reporting more than one} generates routine continuous air emission of ammonia/hydrogen sulfide in excess of the reportable

quantity of 100 pounds some days of the year based on my best estimate from natural processes associated with manure decomposition and animal digestion. This notification is not an emergency report, but rather an attempt to fulfill my requirement to report releases pursuant to EPCRA section 304. No emergency response is necessary. I am reporting out of a precaution to ensure that I am in compliance with federal laws. I will be filing a written report of this continuous release within 30 days.”

Record the following for your information from your phone calls:

Date of LEPC Call	
Name of LEPC Person Contacted	
Date of SERC Call	
Name of SERC Person Contacted	

Part 4: Complete continuous release reporting form(s)

Complete the EPA’s EPCRA “Continuous Release Reporting Form” for each farmstead exceeding the emission reporting threshold ([click here to access forms](#)). The forms are annotated, fill-able forms superimposed onto the actual EPA reporting forms. **Fill out the gray boxes on the forms.** The report consists of five pages and can be printed by clicking the “Print Form” button on the upper right corner of each form. Complete each page either by:

1. printing and completing the form by hand or
2. filling it out directly in Adobe Acrobat Reader and then printing (Note: Adobe Acrobat Pro is required to save your entries; you cannot save your entries in Acrobat Reader).

Your signature is required on the first page.

Finding your Longitude and Latitude

The form requests the physical location of the reportable emission in longitude and latitude. A link to the website <http://maps.yahoo.com> has been added to the form that can be accessed by clicking the button on the form, but you’re free to use other methods. Find the center of the farmstead being reported at Yahoo and right click on that farmstead point on the map and select “drive to this location”. The longitude and latitude of that location will appear on the left. Although DMS (degrees, minutes, seconds) is requested on the form, simply enter decimal degrees in the first box and leave the minutes and seconds boxes empty. For New York State, an example latitude is 43.059523 and longitude is -76.139149. Latitudes in New York State range roughly from 40 to 45 and longitudes from -72 to -80.

Complete each page of the form and print three copies: one for your own records, one for the LEPC, and one for the SERC.

Part 5: Mail report form(s) within 30 days of the telephone report

Mail one copy (certified mail, return receipt requested) of the form for each farmstead reporting emissions to your Local Emergency Planning Committee and another copy to the State Emergency Response Commission. Keep the other copies for your records along with the returned receipt card.

Address of your Local Emergency Planning Committee (from Part 2)		Tracking number:
Address of the State Emergency Response Commission	State Emergency Response Commission (SERC) New York State Emergency Management Office 1220 Washington Avenue, Building 22, Suite 101 Albany, NY 12226-2251	Tracking number:

NOTE: The address for the SERC is the best available information as of February 18, 2009. It will be updated if better SERC contact information becomes available.

Part 6: Mail first anniversary follow-up report(s)

A follow-up written report is due to the LEPC and SERC within 30 days of the first anniversary of the initial written report. If the size of the operation has not changed, you may submit the same information as in the initial written report, except for checking the **“First Anniversary Follow-up Report”** instead of the initial written notification where it asks you to indicate the type of report.

You do not need make phone calls this time, but the written notification is required.

If the size of the farm changes or any other modification is made that would impact the upper bounds of your emission estimates, a follow-up report should be updated to reflect those changes when they occur.

Adapted for use in New York State from the University of Nebraska – Lincoln
(<http://water.unl.edu/eprcreporting>)