TO: Local Emergency Planning Committee: Method of Delivery and Tracking No.:

State Emergency Response Commission: Method of Delivery and Tracking No.:

FROM:

RE: Continuous Release Report

Dear Sir or Madam:

This continuous release report is submitted pursuant to 40 CFR 355.32 and the final rule published on December 18, 2008, 73 Fed. Reg. 76948 (EPA Final Rule). This final rule exempted our facility from reporting hazardous substance releases under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), but did not provide such an exemption for reporting under the Emergency Planning and Community Right to Know Act of 1986 (EPCRA). The attached reporting information reflects our good faith estimate of ammonia and hydrogen sulfide emissions from our operations, in accordance with the EPA Final Rule.

While we do not believe that agricultural operations such as ours are required to report ammonia and hydrogen sulfide emissions from the decidedly naturally occurring processes of cattle urination, defecation and flatulence under either CERCLA or EPCRA, we are nonetheless filing the enclosed report under EPCRA given the uncertainty created by the EPA Final Rule over whether EPA believes that we have a legal obligation to report these naturally occurring releases which happen during routine agricultural operations. The EPA Final Rule pointedly noted that it was not "defining facility, normal application of fertilizer, or routine agricultural operations", 73 Fed. Reg. at 76951, and yet each of these definitions is key to a determination of whether we have a legal obligation to report these releases under either CERCLA or EPCRA.

In the past, we have relied on legal analyses concluding that we do not have an obligation to report these releases under either CERCLA or EPCRA because of the various exemptions and exceptions for naturally occurring substances, normal application of fertilizers and pesticides, and routine agricultural operations, as well as the intended focus of the statutes and the protections contained in the statutes and legislative history for agricultural operations suggesting that Congress never intended that emissions from cattle defecation, urination and flatulence be required to be reported in the same manner as manmade chemical accidents, spills and releases. Since the publication of the EPA Final Rule and the uncertainty it created over whether we are required to report ammonia and hydrogen sulfide emissions from cattle operations, we have assembled available data to make our good faith estimates of these emissions for the purposes of making the attached continuous release reports.

Thank you.

Dairy Operation – Continuous Release Report
Emergency Planning and Community Right-to-Know Act (EPCRA)

- Complete and sign this form.
- Call the Local Emergency Planning Committee (LEPC) and State Emergency Response Commission (SERC).
- Mail this one-page form to the LEPC and SERC (certified mail—return receipt or other verifiable means).

TYPE OF REPORT: ☐ Initial written notification ☐ Written notification of a change to initial notification

SECTION 1. LOCATION		**SECTION 2. INITIAL PHONE REPORTS**	
Dairy name:		LEPC Location:	
Person in charge:		Person contacted:	
Physical address:		Date:	
Mailing address:		Signature:	
City:			
State:		SERC Location:	
Zip:		Person contacted:	
Office phone:		Date:	
Cell phone:		Signature:	
Latitude:			
Longitude:		Dun and Bradstreet Number, if available:	

SECTION 3. SOURCE AND RELEASE DESCRIPTION

Description:	This location is a dairy operation. Dairy cattle are maintained and fed for milk production. This report is being submitted in response to a clarification of EPCRA provided by EPA in a final rule effective January 20, 2009. Ammonia emissions are naturally occurring and are emitted from the cattle digestive process and decomposition of manure.		
Type of release:	☒ Air	Health effects:	☒ None
Time & duration:	☒ Continuous, low level	Precautions:	☒ None
Population Density (within 1 mi. radius):	☐ 0-50 persons ☐ 101-500 persons ☐ greater than 1,000 persons ☐ 51-100 persons ☐ 501-1,000 persons ☐ Other:		
Sensitive population or ecosystems (within 1 mi. radius):	☐ Elementary school:_____ ☐ Hospital:_____ ☐ Retirement community:_____ ☐ Wetland:_____ ☐ Other:_____		

SECTION 4. SUBSTANCES CONTINUOUSLY RELEASED (ESTIMATES)

	Chemical name	CASRN#	Lower Bound (pounds/day)	Upper Bound (pounds/day)
Substance No. 1:	☐ Ammonia (NH_3)*	7664-41-7		
Substance No. 2:	☐ Hydrogen Sulfide (H_2S)*	7783-06-4		

*Estimates of ammonia and hydrogen sulfide emission rates are based on air quality research data collected as part of the USDA-CSREES-funded project, "Air Quality: Reducing Emissions from Cattle Feedlots and Dairies." Participating organizations include Texas AgriLife Research, Texas AgriLife Extension Service, Texas A&M University, USDA-Agricultural Research Service, Kansas State University and West Texas A&M University. Research is on-going. The estimated total annual amount released last year could be estimated as: 1) a range represented by the daily lower bound and upper bound levels multiplied by 365 days, or (2) the average of the daily lower bound and upper bound levels multiplied by 365 days. See also Mukhtar, S., Mutlu, A., Capareda, S., Parnell, C., "Seasonal and Spatial Variation of Ammonia Emissions from an Open-Lot Dairy Operation," 58 Journal of the Air and Waste Management Association 369 (March 2008). See also Mukhtar, S., and Mutlu, A., "Seasonal Hydrogen Sulfide Emissions from an Open-lot Dairy Operation," 2008.Estimates are provided based upon this research and data as well as consultation with Kansas State University.

SECTION 5. SIGNED STATEMENT

The hazardous substance releases described above are continuous and stable in quantity and rate as determined by EPA in its final rule, 73 FR 76948 (Dec. 18, 2008). To the best of my knowledge, I certify that all information submitted in this report is a good faith estimate of air emissions based on currently available scientific information. I reserve the right to raise any objections to the application of these laws and regulations to the facility listed.

Name (printed):		Title:	
Signature:		Date:	

KEEP THIS WORKSHEET FOR DAIRY RECORDS
DO NOT SUBMIT THIS WORKSHEET

Calculation Worksheet – Ammonia and Hydrogen Sulfide
Dairy Operations
January 2009

The following emissions estimates for ammonia and hydrogen sulfide 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. Data has been collected as part of the USDA-CSREES-funded project, "Air Quality: Reducing Emissions from Cattle Feedlots and Dairies," between the years of 2003-2008. See also Mukhtar, S., Mutlu, A., Capareda, S., Parnell, C., "Seasonal and Spatial Variation of Ammonia Emissions from an Open-Lot Dairy Operation," 58 Journal of the Air and Waste Management Association 369 (March 2008). See also Mukhtar, S., and Mutlu, A., "Seasonal Hydrogen Sulfide Emissions from an Open-lot Dairy Operation," 2008. Estimates are provided based upon this research and data and consultation with Kansas State University. Field measurements are on-going and as such these values are a good faith estimate of air emissions based on currently available scientific information.

The final rule on EPCRA reporting issued by EPA on Dec. 18, 2008 and effective Jan. 20, 2009 requires reporting of ammonia or hydrogen sulfide **if** (1) the dairy is 700 head or larger or the calf ranch is 1000 head or larger **and** (2) the ammonia exceeds 100 lbs/day **or** the hydrogen sulfide exceeds 100 lbs/day. **DO NOT report ammonia or hydrogen sulfide values if the "upper bound" is LESS THAN 100 lbs/day. In that case, mark the appropriate field(s) with "N/A".**

Dairy Name:_____

AMMONIA (NH_3) EMISSIONS ESTIMATE

The emissions estimates provided below are inclusive of ammonia emissions from pen surfaces and the runoff holding pond(s). Ammonia emission rates are generally lower in the winter and higher in the summer.

Ammonia (NH_3) Emissions Estimate					
	Lowest Head Count		NH_3 Emission Rate (pounds/hd/day)		**NH_3 Lower Bound** (pounds/day)
NH_3 Lower Bound =		x	**0.028**[a]	=	
[a]winter emission rate from research data					
	Permitted Head Count		NH_3 Emission Rate (pounds/hd/day)		**NH_3 Upper Bound** (pounds/day)
NH_3 Upper Bound =		x	**0.07**[b]	=	
[b]summer emission rate from research data					

HYDROGEN SULFIDE (H_2S) EMISSIONS ESTIMATE

The emissions estimates provided below are inclusive of hydrogen sulfide emissions from the pen surfaces and the runoff holding pond(s). Hydrogen sulfide levels are fairly stable throughout the year.

Hydrogen Sulfide (H_2S) Emissions Estimate					
	Lowest Head Count		H_2S Emission Rate (pounds/hd/day)		**H_2S Lower Bound** (pounds/day)
H_2S Lower Bound =		x	**0.000134**	=	
	Permitted Head Count		H_2S Emission Rate (pounds/hd/day)		**H_2S Upper Bound** (pounds/day)
H_2S Upper Bound =		X	**0.000134**	=	