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Fact Sheet

Docket 58-0101-0502: Rules for the Control of Ammonia from Dairy Farms

What do these rules require?

The rules require dairy farms above specified threshold numbers of cows or animal units* to implement industry best management practices (BMPs) to control ammonia emissions through a permit by rule.

What is a permit by rule?

A permit by rule is a simplified and expedited process whereby a facility that emits air pollutant(s) may register with DEQ and the permit conditions are addressed in the rule rather than a site-specific permit.

Why control ammonia emissions?

Ammonia is a common by-product of animal waste. The volume of ammonia emissions depends on manure characteristics and how the manure is managed.

Ammonia emissions are an environmental concern because they can adversely impact water and air quality. Ammonia emissions can contribute to eutrophication of surface waters and nitrate contamination of ground water. In addition, when emitted ammonia is combined with acidic compounds in the upper atmosphere, fine dust particles (particulates) capable of being inhaled are formed. These particulates have been related to atmospheric haze, and also have been attributed to a variety of adverse human health effects, including premature mortality, chronic bronchitis, asthma, and other respiratory ailments.

Who does the PBR apply to?

The PBR applies to dairy farms with a capacity to produce 100 or more tons of ammonia emissions per year. (Dairy farms with fewer than the specified number of animal units or mature cows may opt into the PBR program as well.) The capacity to produce is based on the number of animal units or mature cows and the type of manure collection system. The table below shows the applicable thresholds prescribed in the rule:

Animal Unit (AU) Basis	**Drylot**	**Free Stall/Scrape**	**Free Stall/Flush**
AU (100 t NH3) Threshold			
No land app	7089	3893	2293
27% volatilization 1	6842	3827	
80% volatilization 2	6397	3700	
Basis (1400 lbs)	**Drylot**	**Free Stall/Scrape**	**Free Stall/Flush**
Total Cows AU (100 t NH3) Threshold			
No land app	5063	2781	1638
27% volatilization 1	4887	2733	
80% volatilization 2	4569	2643	

1 Assumes expected level of N->NH3 volatilization for drop-hose or ground level liquid manure application.
2 Assumes expected level of N->NH3 volatilization for center pivot or other conventional sprinkler irrigation liquid manure application.

How do dairy farms comply with the PBR?

To comply with the PBR, dairy farms that are subject to the rule must register with DEQ and ISDA within 15 days of the rule's effective date of July 1, 2006, by providing the following information:

- name, address, location of dairy farm, and telephone number;
- information on the size and type of the dairy farm;
- information on the type of BMPs that the dairy farm is employing to total 27 points.

What types of BMPs can dairies employ?

The rules prescribe various BMPs to control ammonia emissions, ranging from installing certain types of waste storage and treatment systems to implementing composting practices to exporting manure. A point value is assigned to each BMP. Dairy farms must employ BMPs totaling 27 points.

If a dairy farmer uses a certain BMP during six months of the year, because weather or seasonal conditions restricted implementation of that BMP year-round, will he receive the entire amount of points allocated to the BMP?

Yes. Seasonal or periodic implementation of BMPs has been factored into the points assigned to each BMP. State rules or adverse weather conditions prohibit implementation of certain BMPs during winter months. The points assigned to each BMP are scaled to represent the BMP's effectiveness for ammonia emission reduction on an annual basis. Inspectors will be able to determine whether the BMP has been implemented when allowed or appropriate.

If a dairy farmer implements a BMP on only half the waste generated, will the point value assigned to the BMP recognize this?

Yes. If a 10-point value BMP is implemented on only half the waste, the dairy farmer will receive 5 points for its use.

If a dairy farmer implements a BMP for six months of the year, and then chooses to implement another BMP in its place, how will the point value be determined for those BMPs?

The point value will be prorated between the BMPs. For example, a 10-point year-round BMP that is implemented for six months will receive 5 points and, if a different 10-point year-round BMP is implemented the next six months, it, too, will receive 5 points.

If a dairy farmer opts to have a third party export its dairy waste off-site, will the third-party exporter become subject to these rules?

No. The rules do not give DEQ enforcement authority over third-party exporters. If it were determined that the third-party exporter had not implemented the BMP claimed by the dairy farmer, the dairy farmer would receive no points for that BMP.

If a dairy farmer who would not be subject to these rules based on size and type of dairy farm chooses to obtain a permit by rule under Section 762.02, will the dairy farm be required to comply with the permit by rule?

Yes. A dairy farmer who opts into the program and obtains a permit by rule will be subject to the requirements of the program. The dairy farmer can request termination of the permit by rule, which DEQ would agree to so long as the farm was in good standing. Termination of the permit by rule will not negate any violations, however, while subject to the program.

What is an example of an emergency as defined in Section 762.03?

An example of an emergency would be when a dairy farmer agrees to take a neighbor's cows because the neighbor's barn burned down.

How do equipment upsets and breakdowns affect the point total assigned to the BMP?

In the event of unforeseen equipment upsets and breakdowns, DEQ will exercise enforcement discretion. So long as corrective action is taken within a reasonable time, which would depend on specific circumstances, the event will not reduce the BMP point value.

How will the state ensure compliance?

Within 30 days of receiving a dairy farm's registration information, ISDA will conduct an inspection to ensure that the required number of BMPs are employed. ISDA will also provide compliance assistance if needed. If ISDA finds that BMPs are lacking, it may issue a warning letter.

Enforcement of the rule is DEQ's responsibility. Enforcement methods include filing a notice of violation or referring the case to the Attorney General's office for civil enforcement. In the event of unforeseen equipment upsets and breakdowns, DEQ will exercise enforcement discretion. So long as corrective action is taken within a reasonable time, which would depend on specific circumstances, the event will not reduce the BMP point value. In the event of an emergency, the farm could apply for and be granted an exemption for up to one year.

If a dairy farmer does not implement the required point total of BMPs, would the violation be considered a failure to obtain a permit by rule or a failure to comply with the permit by rule?

The violation would be a failure to comply with the permit by rule.

Who developed these rules?

The rules were developed by DEQ in conjunction with a negotiating committee made up of representatives from the dairy industry, the environmental community, other state agencies, and other interested persons.

When will these rules take effect?

The effective date is July 1, 2006.

Where can I get a copy of the rules?

The rule is available on DEQ's Web site at www.deq.idaho.gov/rules/air/58_0101_0502_temporary.cfm.

Where can I get a copy of the scientific basis for the 100 ton per year ammonia estimates?

The document is available on DEQ's Web site at http://www.deq.idaho.gov/rules/air/58_0101_0502_ammonia_calculations.pdf.

Where can I get a copy of the Scientific Basis for the Control of Ammonia from Dairy Farms Best Management Practices?

The document is available on DEQ's Web site at http://www.deq.idaho.gov/rules/air/58_0101_0502_scientific_basis.pdf.

Who can I contact at DEQ for more information?

Contact Mike Simon, Stationary Source Program Manager, DEQ Air Quality Division, at (208) 373-0502.