

IDAPA 02 – IDAHO DEPARTMENT OF AGRICULTURE

Animals Division

02.04.14 – Rules Governing Dairy Byproduct

Who does this rule apply to?

All dairy farmers.

What is the purpose of this rule?

In order to protect the natural resources and waters of the state, this rule governs the Department's review, approval, and enforcement of dairy environmental management plans to ensure that dairy environmental management systems are constructed, operated and maintained in a manner that protects the natural resources of the state. Nothing in this rule affects the authority of the department of environmental quality to enforce an IPDES permit for dairy farms that discharge pollutants to waters of the United States, including without limitation, the authority to issue permits, access records, conduct inspections and take enforcement actions. The provisions of this rule do not alter the requirements, liabilities, and authorities with respect to or established by the IPDES program.

What is the legal authority for the agency to promulgate this rule?

This rule implements the following statutes passed by the Idaho Legislature:

- [37-302, Idaho Code](#) – Dairies and Dairy Products: Inspections
- [37-401, Idaho Code](#) – Sanitary Inspection of Dairy Products: Nutrient Management Plans Required
- [37-603, Idaho Code](#) – Authority and Duties of Director and Agency Coordination

Who do I contact for more information on this rule?

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02.04.14 – RULES GOVERNING DAIRY BYPRODUCT

000. LEGAL AUTHORITY.

This chapter is adopted under the legal authority of Title 37, Chapters 3, 4, and 6, Idaho Code. (3-31-22)

001. SCOPE.

These rules govern the Department's review, approval, and enforcement of dairy environmental management plans. (3-31-22)

002. -- 003. (RESERVED)

004. INCORPORATION BY REFERENCE.

The following documents are incorporated by reference into this chapter. (3-31-22)

01. Natural Resources Conservation Service Agricultural Waste Management Field Handbook Appendix 10D (Appendix 10D) (1997 Edition) (USDA, NRCS). This document is available online at https://agri.idaho.gov/main/wp-content/uploads/2017/08/nrcs_10d_1997.pdf. (3-31-22)

02. Nutrient Management Standard (NMS). The 1999 publication by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Idaho Conservation Practice Standard, Nutrient Management Code 590, available online at https://agri.idaho.gov/main/wp-content/uploads/2017/08/nutrient_Management_code_590.pdf. (3-31-22)

03. Natural Resources Conservation Service (NRCS) Idaho Conservation Practice Standard Waste Storage Facility Code 313 December 2004. This document is available online at https://agri.idaho.gov/main/wp-content/uploads/2017/10/nrcs_313_Dec_2004.pdf. (3-31-22)

04. American Society of Agricultural and Biological Engineers Specification ASAE EP393.3 Manure Storages February 2004. This document is part of a copyrighted publication and is available for viewing at the ISDA offices or a copy may be purchased online at <http://www.asabe.org/>. (3-31-22)

05. Natural Resources Conservation Service (NRCS) Web Soil Survey Database. This document is available online at <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. (3-31-22)

06. Natural Resources Conservation Service (NRCS) Part 630, Hydrology National Engineering Handbook, Chapter 7, (Hydrologic Soil Groups), January 2009. This document is available online at <https://www.wcc.nrcs.usda.gov/ftpref/wntsc/H&H/NEHydrology/ch7.pdf>. (3-31-22)

07. The Phosphorus Site Index: A Systematic Approach to Assess the Risk of Nonpoint Source Pollution of Idaho Waters by Agricultural Phosphorus, 2017. This document is available online at <https://agri.idaho.gov/main/wp-content/uploads/2018/12/Phosphorus-Site-Index-reference-2017-revised.pdf>. (3-31-22)

005. -- 009. (RESERVED)

010. DEFINITIONS.

The following definitions apply in the interpretation and enforcement of this chapter: (3-31-22)

01. Approved Laboratory. A soil testing laboratory that meets the requirements and performance standards of the North American Proficiency Testing Program under the auspices of the Soil Science Society of America. (3-31-22)

02. Certified Soil Sampler. An individual qualified and approved by the Department to collect soil samples according to the 1997 University of Idaho Soil Sampling protocols or other method as approved by the Department. (3-31-22)

03. Dairy Animal. Milking cows, sheep or goats. (3-31-22)

04. Dairy Byproduct. Solids and liquids associated with dairy animal rearing and milk production including, but not limited to, manure, manure compost, process water, bedding, spilled feed, and feed leachate. (3-31-22)

05. Dairy Environmental Management System. The areas and structures within a dairy farm where dairy byproducts are collected, stored, treated, or applied to land. These areas and structures may include corrals,

feeding areas, collection systems, conveyance systems, storage ponds, treatment lagoons, and evaporative ponds and land application areas, but do not include pastures as defined in these rules. (3-31-22)

06. Dairy Farm. The land owned or operated by a person as an integral component of a Department-permitted grade A or manufacture grade facility where one (1) or more milking cows, sheep, or goats are kept, and from which all or a portion of the milk produced thereon is delivered, sold or offered for sale for human consumption. A dairy farm does not include those lands that contain non-dairy animals provided a physical separation exists from lands owned or operated by the dairy, byproducts remain separate, and dairy animals are not comingled with non-dairy animals. (3-31-22)

07. Dairy Storage and Containment Facilities. The areas and structures within a dairy farm where dairy byproducts are collected, stored, or treated in conformance with engineering standards and specifications published by the USDA Natural Resources Conservation Service or by the ASABE, or other equally protective criteria approved by the Director. These areas may include corrals, feeding areas, collection systems, conveyance systems, storage ponds, treatment lagoons, evaporative ponds, and compost areas, but do not include pastures as defined in these Rules. (3-31-22)

08. Inspector. A qualified, trained person employed by the Department to perform dairy farm inspections. (3-31-22)

09. Land Application. Mechanical spreading on, or incorporating into the soil mantle, dairy byproduct as a soil amendment for agricultural use of nutrients and for other beneficial purposes. Land application does not include pasturing animals as defined in these rules. (3-31-22)

10. Modification or Modified. Structural changes and alterations to the dairy storage and containment facility that would require increased storage or containment capacity or the function of the facility. (3-31-22)

11. Pasture, Pasturing, and Pastured. For purposes of these rules, a pasture is an irrigated or dryland field with forage plant growth covering a minimum of fifty percent (50%) of the field. Pasturing and pastured is dairy animals and other animals owned, leased, or otherwise under the control of the producer, grazing in the same dairy farm pasture. (3-31-22)

12. Permit. A permit issued by the Department allowing the sale of Grade A milk or manufacture grade milk. (3-31-22)

13. Phosphorus Site Index. A method to evaluate the relative potential for off-site movement of phosphorus from a field or pasture based upon risk factors relating to surface transport, phosphorus loss potential and nutrient management practices. (3-31-22)

14. Producer. The person who owns or operates a permitted dairy farm. (3-31-22)

011. ABBREVIATIONS.

01. ASABE. American Society of Agricultural and Biological Engineers. (3-31-22)

02. IPDES. Idaho Pollutant Distribution Elimination System. (3-31-22)

03. NMS. Nutrient Management Standard (3-31-22)

04. NRCS. Natural Resources Conservation Service. (3-31-22)

05. USDA. United States Department of Agriculture. (3-31-22)

012. -- 029. (RESERVED)

030. DAIRY ENVIRONMENTAL MANAGEMENT PLAN APPROVAL.

01. Dairy Storage and Containment Facility Criteria. (3-31-22)

a. Dairy storage and containment facilities shall be constructed to meet a minimum of one hundred eighty (180) days of holding capacity. Process water containment structures that are utilized as the secondary or final storage for effluent shall have a minimum two (2) vertical feet of freeboard. Process water and containment structures that are not the secondary or final storage for effluent shall have a minimum one (1) vertical feet of freeboard. (3-31-22)

b. Earthen dairy storage and containment facilities less than ten (10) vertical feet high with a maximum high water line of eight (8) vertical feet shall have a top embankment width of at least eight (8) feet. The combined embankment slopes must be at least five (5) horizontal to one (1) vertical, and shall not exceed two (2) horizontal to one (1) vertical slope. Earthen dairy storage and containment facilities greater than ten (10) vertical feet from the naturally occurring ground level shall meet the NRCS Idaho Conservation Practice Standard Waste Storage Facility Code 313 December 2004 embankment requirements. (3-31-22)

c. The inside bottom of the dairy storage and containment facility shall be a minimum of two (2) feet above the high water table, bed rock, gravel, or permeable soils. For an earthen dairy storage and containment facility, a soil liner shall be installed such that the specific discharge rate of the containment structure meet $1 \times 10^{-6} \text{ cm}^3/\text{cm}^2/\text{sec}$ or less. Concrete or synthetic liners must be constructed to ASAE and Appendix 10D specifications. (3-31-22)

d. Storage areas for dairy byproduct, including compost and solid manure storage areas, shall be appropriately protected to prevent run on, run off, and contamination of ground and surface water. (3-31-22)

e. Dairy environmental management systems shall be maintained in a condition that allows the producer to regularly inspect the integrity of the systems. (3-31-22)

02. Dairy Nutrient Management Plan (DNMP). Each dairy farm shall have a dairy nutrient management plan that is approved by the Department. The DNMP shall cover the dairy farm site and other land owned and operated by the dairy farm owner or operator to which dairy byproducts are land applied. Requirements to comply with the provisions of a DNMP include the following: (3-31-22)

a. Producer annual soil tests shall be conducted as set forth in IDAPA 02.04.30, "Rules Governing Environmental and Nutrient Management," and tested by an approved laboratory. (3-31-22)

b. Regulatory soil tests will be conducted at frequencies sufficient to provide assurance of compliance with Section 031 and with IDAPA 02.04.30, "Rules Governing Environmental and Nutrient Management." (3-31-22)

c. Accurate DNMP records shall be maintained. These records shall include at a minimum: (3-31-22)

i. Annual soil analysis; (3-31-22)

ii. Date and amount of dairy byproduct and commercial fertilizer applied to individual dairy owned or operated fields; (3-31-22)

iii. Date(s) of exported dairy byproduct, number of acres applied, amount of dairy byproduct exported, and to whom dairy byproduct was exported; and (3-31-22)

iv. Actual crop yields on dairy owned or operated fields. (3-31-22)

v. A nitrogen management plan worksheet shall be completed for all fields and pastures receiving land application of nutrients. (3-31-22)

d. Pasturing. All pastures utilized for grazing of dairy animals, and other animals grazing within the same pasture, shall be incorporated in to the DNMP and subject to the following requirements: (3-31-22)

i. Soil testing pursuant to the NMS and this section. (3-31-22)

- ii. Surface water access. If pastured animals have access to surface water within a pasture, the producer may be required to implement one (1) or more NRCS conservation practice standards to minimize adverse impact on surface water quality. (3-31-22)
- iii. Land application. If land application occurs within a pasture, annual soil tests shall be conducted. (3-31-22)
- iv. Confinement areas. Confinement areas shall not be considered part of a pasture. (3-31-22)
- e. IPDES Permits. Dairy farms governed by the IPDES program are not required to submit a DNMP to the Department. (3-31-22)

031. PHOSPHORUS MANAGEMENT.

Dairy farms shall utilize either Phosphorus Indexing (Section 031.01) or the Phosphorus Threshold (Section 031.02) to manage nutrient application. (3-31-22)

01. Phosphorus Indexing. The dairy farm shall utilize phosphorus site indexing (PSI) for each field where dairy byproducts and/or commercial fertilizers are land applied and for each pasture utilized for grazing, in accordance with the 2017 Idaho Phosphorus Site Index Standards. The PSI shall be calculated by a Nutrient Management Planner, certified by the Department, and be included as a component of the DNMP in the dairy farm's Environmental Management Plan. It shall be the dairy farm's responsibility to provide updated information, including annual soil test results, to the Nutrient Management Planner for calculation of the PSI on all fields and pastures on an annual basis. Failure to abide by the nutrient application and management provisions of a field or pasture's PSI risk classification in the DNMP shall constitute a non-compliance and the producer may be penalized as provided in these rules. (3-31-22)

a. Notwithstanding anything to the contrary in the 2017 Idaho Phosphorus Site Index Standards, no land application of phosphorus shall be permitted on any fields or pastures that possess a soil phosphorus level exceeding three hundred (300) parts per million, as determined by the required annual soil test (via Olsen method). Further, the dairy farm shall not receive BMP Coefficient credit for implementing any best management practice designed to reduce phosphorus loss on fields exceeding three hundred (300) parts per million, via Olsen method. (3-31-22)

b. The Department may award zero (0) or partial BMP Coefficient credit when a dairy farm implements a best management practice designed to reduce phosphorus loss from fields that does not fully conform to NRCS standards or the standards set forth in the 2017 Idaho Phosphorus Site Index Standards BMP definition section. (3-31-22)

02. Phosphorus Threshold. If the regulatory or producer soil tests reveal that phosphorus thresholds on fields and pastures have exceeded the levels established in the NMS, the producer shall only apply phosphorus at the appropriate phosphorus crop uptake rate. Subsequent regulatory soil test(s) on fields and pastures that were identified as exceeding the phosphorus threshold will be conducted. If two (2) out of three (3) tests reveal the phosphorus index continues to trend upward, the producer will be penalized as provided in these rules. These tests shall be taken in the top one (1) foot of soil. (3-31-22)

032. -- 039. (RESERVED)

040. INSPECTIONS.

Each dairy farm shall be inspected at intervals sufficient to determine that dairy byproducts and process water have been managed to prevent an unauthorized discharge, unauthorized release, or contamination of surface and ground water. (3-31-22)

041. -- 049. (RESERVED)

050. COMPLIANCE SCHEDULES.

01. Non-Compliance or Unauthorized Release Violations. Appropriate corrective actions will be

identified and informally scheduled when items of non-compliance or unauthorized release violations are identified. The Director may develop a formal compliance schedule in the following cases: (3-31-22)

- a. Failure to complete corrective actions within thirty (30) days; or (3-31-22)
- b. Corrective actions require significant capital investment; or (3-31-22)
- c. Informal schedules have not been followed. (3-31-22)

02. Re-Inspection. Re-inspection of the dairy farm will be conducted as appropriate, to ensure compliance. An unauthorized release violation shall be corrected immediately, when at all possible. (3-31-22)

051. -- 059. (RESERVED)

060. UNAUTHORIZED DISCHARGES AND UNAUTHORIZED RELEASES -- PENALTIES. Non-compliance with requirements for dairy environmental systems, the NMS, and DNMP shall be addressed through corrective actions and compliance schedules pursuant to these rules. (3-31-22)

061. -- 999. (RESERVED)