J. Flow meter installation. A permittee shall employ a flow metering system that uses flow measurement devices (flow meters) to measure the volume of wastewater discharged at the dairy facility. Flow meters shall be installed in accordance with the plans submitted with the application for a new, renewed or modified discharge permit, or those submitted after issuance of a discharge permit to achieve compliance with the dairy rule, pursuant to this section, Subsection C of 20.6.6.17 NMAC, and Subsections G and H of 20.6.6.21 NMAC. Flow meters shall be physically and permanently labeled with the discharge permit number, meter identification nomenclature as specified in a discharge permit, and the month and year of meter installation. All flow meters shall be calibrated in accordance with the manufacturer's requirements prior to installation or reinstallation following repair. The permittee shall maintain copies of the manufacturer's certificate of calibration and the manufacturer's recommended maintenance schedule. Confirmation of installation shall include a description of the device type, manufacturer, meter identification, location, record drawings, and the results of the initial field a copy of the manufacturer's certificate of calibration and a copy of the manufacturer's recommended maintenance schedule completed pursuant to Subsection E of 20.6.6.24 NMAC.

1. An applicant or permittee for a new dairy facility shall install flow meters and submit confirmation of flow meter installation to the department before discharging at the dairy facility.

2. An applicant or permittee for an existing dairy facility shall install flow meters within 150 days of the effective date of the discharge permit and submit confirmation of flow meter installation to the department within 180 days of the effective date of the discharge permit.

M. Authorized use of existing flow meters. An applicant or permittee proposing to use an existing flow meter(s) shall submit documentation demonstrating that the existing flow meter(s) is installed consistent with this section, and Subsections G and H of 20.6.6.21 NMAC, as appropriate. The proposal shall be submitted with an application for a new, renewed and modified discharge permit and shall include the following documentation.
(1) The location of each existing flow meter indicated on the scaled map required by Subsection U of this section and the identification of the wastewater discharge, or wastewater or stormwater application it is intended to measure.

(2) A copy of the record drawings or manufacturer plans and technical specifications specific to each existing flow meter, if available.

(3) A field calibration report for each existing flow meter, completed pursuant to Subsection E of 20.6.6.24 NMAC.

O. Flow meter inspection and maintenance. A permittee shall visually inspect flow meters on a weekly basis for evidence of malfunction. If a visual inspection indicates a flow meter is not functioning to measure flow, the permittee shall initiate repair or replacement of the meter within 30 seven days of discovery. The repaired or replaced flow meter shall be installed and calibrated pursuant to the dairy rules subsection J of this section.

(1) For repaired meters, the permittee shall submit a report to the department with the next quarterly monitoring report following the repair that includes a description of the malfunction; a statement verifying the repair; and a copy of the manufacturer's or repairer's certificate of calibration; and a flow meter field calibration report completed pursuant to Subsection E of 20.6.6.24 NMAC.

(2) For replacement meters, the permittee shall submit a report to the department with the next quarterly monitoring report following the replacement that includes plans for the device pursuant to Subsection C of 20.6.6.17 NMAC, a copy of the manufacturer's certificate of calibration, and a copy of the manufacturer's recommended maintenance schedule; and a flow meter field calibration report completed pursuant to Subsection E of 20.6.6.24 NMAC.

[20.6.6.20 NMAC - N, 01/31/2011; A, 12/31/2011]

20.6.6.21 ADDITIONAL OPERATIONAL REQUIREMENTS FOR DAIRY FACILITIES WITH A LAND APPLICATION AREA:

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I. Nutrient management plan. Nutrients and other constituents required to be monitored under section 20.6.6.25.C and present in wastewater and stormwater shall be applied to irrigated cropland under cultivation in accordance with the requirements of a nutrient management plan (NMP) submitted to the department with the application for a new, renewed, or modified discharge permit. The NMP shall provide for development of a nutrient budget for nitrogen on an annual basis that accounts for the amount of nitrogen from all combined nitrogen sources, including but not limited to wastewater, stormwater, manure solids, composted material, irrigation water and other additional fertilizer(s), along with residual soil nitrogen and nitrogen credits from leguminous crops and that considers estimated and measured nitrogen removal by harvested crops and other losses, considering the monitoring data required to be collected under section 20.6.6.25 NMAC. The NMP shall describe how planned total nitrogen application rates shall be determined each year based upon realistic yield goals for the planned crops. The information used to set the crop yield goals shall be identified in the NMP. The NMP shall
address how nitrogen application rates will be adjusted based upon the results of soil tests required by section 20.6.6.25, subsections K and L, consistent with applicable Natural Resource Conservation Service guidance for normal, high and excessive soil nitrogen levels. The NMP shall specify the maximum application rates for wastewater applied through irrigation so as not to exceed the soil intake/infiltration rate. shall be applied to The application of nitrogen to each field within the land application area shall be in accordance with the NMP, and any departures from the NMP due to growing conditions or other factors shall be addressed in the update to the NMP for the following year. The NMP shall be developed through utilization of the U.S. Department of Agriculture—Natural Resources Conservation Service (USDA-NRCS) National Comprehensive Nutrient Management Plan development templates as adopted by the New Mexico office of the USDA-NRCS and in accordance with the USDA-NRCS Conservation Practice Standards for New Mexico, Nutrient Management—Code 590. The NMP shall be developed, signed and dated annually by an individual certified by the American Society of Agronomy as a Certified Crop Advisor (CCA) or certified professional agronomist (CPAg) and by an individual certified by the New Me New Mexico office of the USDA-NRCS as a nutrient management planner. Plant material and soil sampling protocols in the NMP shall be, at a minimum, equivalent to the requirements of Subsections I, K and L of 20.6.6.25 NMAC. The NMP shall identify the method(s) of crop removal to be employed. The NMP shall be developed for the term of the discharge permit, and updated annually, and implemented pursuant to the dairy rule. The NMP shall be developed, signed and dated annually by an individual certified by the American Society of Agronomy as a Certified Crop Advisor (CCA) or certified professional agronomist (CPAg) or by an individual certified by the New Mexico office of the USDA-NRCS as a nutrient management planner. The permittee may elect to submit an NMP meeting the requirements of this subsection that is incorporated into a broader plan, such as a comprehensive nutrient management plan or a nutrient management plan prepared to meet the requirements of a permit issued by EPA, in which case only portions of such plan required by this subsection and section 20.6.6.25 NMAC shall be considered for purposes of the dairy rule. For a renewed permit where the NMP was not submitted in an application, the permittee shall submit the initial NMP by May 1 of the first year the permit is in effect, and the permittee shall submit annual updates to the NMP to the department in the monitoring reports due by May 1 of each year.

M. Backflow prevention. A permittee shall protect all water wells used within the land application distribution system from contamination by wastewater or stormwater backflow by installing and maintaining backflow prevention methods or devices. Backflow prevention shall be achieved by a total disconnect (physical air gap separation of at least two times the pipe diameter or complete piping separation when wastewater is being pumped) or by the installation of, at a minimum, a reduced pressure principal backflow prevention assembly (RP) air/vacuum relief valve and a low pressure drain valve located immediately upstream of a check valve between the fresh irrigation water supply discharge head of the well pump and wastewater and stormwater delivery systems.

1) A permittee for a new dairy facility shall install backflow prevention methods or devices and submit written confirmation of installation to the department before discharging at the dairy facility.
(2) A permittee for an existing dairy facility that lacks backflow protection as required by this subsection shall install backflow prevention methods or devices within 90 days of the effective date of the discharge permit. The permittee shall submit written confirmation of installation to the department within 180 days of the effective date of the discharge permit.

N. Backflow prevention by reduced-pressure-principle check valve backflow prevention assembly - inspection and maintenance. A permittee shall inspect each check valve device at least monthly when the well is operating. Each reduced pressure principle-backflow prevention assembly (RP) check valve device inspected and tested by a person qualified by the manufacturer at the time of installation, repair, or relocation, and at least on an annual schedule thereafter. A malfunctioning RP check valve device shall be repaired or replaced within 30 days of discovery, and use of all wastewater supply lines associated with the RP check valve device shall cease until repair or replacement has been completed. Copies of the inspection and maintenance records and test results for each RP check valve device associated with the backflow prevention program for the previous year shall be submitted to the department annually in the monitoring reports due by May 1.

[20.6.6.21 NMAC - N, 01/31/2011; A, 12/31/2011]

20.6.6.24 MONITORING REQUIREMENTS FOR ALL DAIRY FACILITIES:

E. Flow meter field calibration. All flow meters shall be capable of having their accuracy ascertained under actual working (field) conditions. A field calibration method shall be developed for each flow meter and that method shall be used to check the accuracy of each respective meter. Field calibrations shall be performed upon installation and, at a minimum, annually thereafter. Flow meters shall be calibrated to within plus or minus 10 percent of actual flow, as measured under field conditions. Field calibrations shall be performed by an individual knowledgeable in flow measurement and in the installation or operation of the particular device in use. The permittee shall submit the results of annual field calibrations to the department annually in the monitoring reports due by May 1. The flow meter calibration report shall include the following:

(1) The location and meter identification nomenclature identified by the department through a discharge permit.

(2) The method of flow meter field calibration employed.

(3) The measured accuracy of each flow meter prior to adjustment indicating the positive or negative offset as a percentage of actual flow as determined by an in-field calibration check.

(4) The measured accuracy of each flow meter following adjustment, if necessary, indicating the positive or negative offset as a percentage of actual flow of the meter.

(5) Any flow meter repairs made during the previous year or during field calibration.

[20.6.6.24 NMAC - N, 01/31/2011]