



NEW MEXICO
ENVIRONMENT DEPARTMENT
OFFICE OF GENERAL COUNSEL



BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant
Governor

Harold Runnels Building
1190 Saint Francis Drive, Santa Fe, NM 87505
Phone (505) 827-2990 Fax (505) 827-1628
www.nmenv.state.nm.us
Tracy Hughes, General Counsel

RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

Judith Sandoval
Small Business Regulatory Advisory Commission
1100 St. Francis Drive
Santa Fe, NM 87501



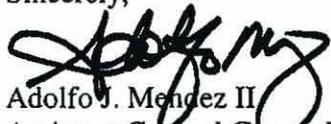
February 1, 2010

Re: New Mexico Environment Department Revised Petition for Dairy Industry Rules to Prevent and Monitor Water Pollution

Dear Ms. Sandoval,

Pursuant to NMSA 1978 § 14-4A-4, please find enclosed a copy of a revised petition for a regulatory change filed by the New Mexico Environment Department ("NMED") with the New Mexico Water Quality Control Commission ("Commission") on January 29, 2010. The enclosed revised petition replaces a petition on the same subject that NMED filed with the Commission on December 22, 2009.

Sincerely,


Adolfo J. Mendez II
Assistant General Counsel

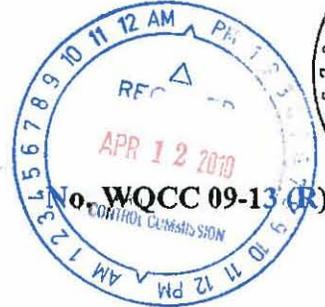
Telephone: (505) 827-1031

COPY

**STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION**

In the Matter of:

**PROPOSED AMENDMENT
TO 20.6.2 NMAC**



**NEW MEXICO ENVIRONMENT DEPARTMENT'S
REVISED PETITION FOR REGULATORY CHANGE**

This petition and attachment replace the New Mexico Environment Department's petition and attachment filed on December 22, 2009.

Pursuant to the New Mexico Water Quality Act ("WQA"), NMSA 1978 §§ 74-6-1 to 74-6-17 (2009); the Scheduling Order and Procedural Order issued by the Hearing Officer for the Water Quality Control Commission ("Commission") on January 16, 2010; and Section 301 of the *Guidelines for Water Quality Control Commission Regulation Hearings*, the New Mexico Environment Department ("NMED") petitions the Commission to amend the Ground and Surface Water Protection Regulations, 20.6.2 NMAC, to include new rules for the dairy industry.

NMED proposes to insert the new rules for the dairy industry, attached as Attachment 1, into sections 20.6.2.3200 through 20.6.2.3235 NMAC, which are reserved sections in 20.6.2 NMAC. NMED does not propose changes to existing sections of 20.6.2 NMAC.

Statement of Reasons for the Rule Change

A rule change is required by statute. During the first regular legislative session of 2009, the New Mexico legislature amended the WQA to require that the Commission adopt new rules

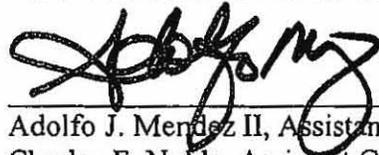
for the dairy industry “to specify...the measures to be taken to prevent water pollution and to monitor water quality.” NMSA 1978 §§ 74-6-4(K) (2009).

The WQA requires NMED, as the constituent agency for the Commission, to propose appropriate dairy industry rules for adoption by the Commission. *Id.* NMED developed its proposal for appropriate dairy industry rules through an extensive public and stakeholder process. As required by the WQA, NMED sought public input on the proposed rule change, established an advisory committee to seek advice on rules to propose and participated in stakeholder negotiations with representatives of the dairy industry, environmental organizations and groups of concerned citizens. At the conclusion of that process, NMED filed a petition and proposal for new rules for the dairy industry on December 22, 2009.

After NMED’s December 22, 2009 filing, NMED agreed to accept and consider additional comments submitted by January 19, 2010 from the dairy industry, environmental organizations and citizen groups that participated in the stakeholder negotiation process. After considering the additional comments, NMED revised its proposal rules. NMED’s revised proposal for the new rules for the dairy industry is attached as Attachment 1.

Respectfully submitted,

NEW MEXICO ENVIRONMENT DEPARTMENT



Adolfo J. Mendez II, Assistant General Counsel
Charles F. Noble, Assistant General Counsel
Office of General Counsel
New Mexico Environment Department
1190 St. Francis Drive
PO Box 5469
Santa Fe, New Mexico 87502
Telephone: (505) 827-1031

CERTIFICATE OF SERVICE

I hereby certify that a copy of this New Mexico Environment Department's Revised Petition for Regulatory Change was served by e-mail on the following parties on January 29, 2010:

Joyce Medina
Board Administrator
NMED Boards and Commissions
1190 St. Francis Dr., N2153
Santa Fe, NM 87502

Michael Jensen
Amigos Bravos
P.O. Box 238
Taos, NM 87571
mjensen@amigosbravos.org

Alva Carter Jr.
DIGCE
214 W. 2nd Street
Portales, NM 88130
alva@yucca.net

T.J. Trujillo
Gallagher & Kennedy P.A.
1233 Paseo de Peralta
Santa Fe, NM 87501
ajt@gknet.com

Dalva Moellenberg
Gallagher & Kennedy P.A.
2575 E. Camelback Rd.
Phoenix, AZ 85016
dlm@gknet.com

Walter Bradley
Dairy Farmers of America
3500 William D. Tate Ave., Suite 100
Grapevine, TX 76051
wbradley@dfamilk.com

Sharon Lombardi
Dairy Producers of NM
P.O. Box 6299
Roswell, NM 88202
dpm1@juno.com

Jerry Nivens
Caballo Concerned Citizens
P.O. Box 131
Caballo, NM 87931
jerry@caballonm.com

Dan Lorimer
Sierra Club, Rio Grande Chapter
142 Truman NE
Albuquerque, NM 87108
daniel.lorimer@sierraclub.org

Kathy Martin
3122 Tall Oaks Circle
Norman, OK 73072
kjm2@aol.com

Daniele Diamond
ddiamond@icaw.org

Jana Hughes
Citizens for Dairy Reform
302 Stiles Road
Hobbs, NM 88242
hjana48@yahoo.com

Deb Turner
13101 N. Calle Bonita
Hobbs, NM 88242
turnerdj1980@hotmail.com

Jo Ann King
13100 N. Calle Bonita
Hobbs, NM 88242
joannking10@leaco.net

Lonny Ashcraft
Ashcraft Consulting, Inc.
P.O. Box 623
Roswell, NM 88202

loneyashcraft@cableone.net

Bruce Frederick
NM Environmental Law Center
1405 Luisa St., Suite 5
Santa Fe, NM 87505
bfrederick@nmelc.org

Jay Lazarus
Glorieta Geoscience, Inc.
P.O. Box 5727
Santa Fe, NM 87502
lazarus@glorietageo.com

Charles F. Noble
Charles F. Noble

ATTACHMENT 1

Revised Petition

**PROPOSED AMENDMENT TO
20.6.2 NMAC**

*Attachment 1 – Revised Petition – Proposed Amendment to 20.6.2 NMAC
January 29, 2010*

1 **20.6.2.3200 SUPPLEMENTAL PERMITTING REQUIREMENTS FOR DAIRY FACILITIES**
2 [20.6.2.3200 NMAC – N, effective date]

3
4 **20.6.2.3201 PURPOSE:** The purpose of Sections 20.6.2.3200 through 20.6.2.3235 NMAC is to
5 supplement the general permitting requirements of Sections 20.6.2.3000 through 20.6.2.3114 NMAC to
6 control discharges specific to dairy facilities and their operations.

7
8 **20.6.2.3202 DEFINITIONS:**

9 **A.** Terms defined in the Water Quality Act and Section 20.6.2.7 NMAC shall have the
10 meanings as given in such.

11 **B.** As used in Sections 20.6.2.3200 through 20.6.2.3235 NMAC, but not in other sections of
12 this Part, a term defined in this section shall have the following meaning.

13 (1) “Adjacent” means lying near, but lacking actual contact along a boundary or at a point.

14 (2) “Applicant” means the person applying for a new, renewed or modified discharge
15 permit.

16 (3) “Construction quality assurance” or “CQA” means a planned system of activities
17 necessary to ensure that standards and procedures are adhered to and that construction and installation meet
18 design criteria, plans and specifications. A CQA includes inspections, verifications, audits, evaluations of
19 material and workmanship necessary to determine and document the quality of the constructed
20 impoundment or structure, and corrective actions when necessary.

21 (4) “Construction quality control” or “CQC” means a planned system of operational
22 techniques and activities used to preserve the quality of materials and ensure construction to specifications.
23 Elements of a CQC include inspections, testing, data collection, data analysis and appropriate corrective
24 actions.

25 (5) “Contiguous” means being in actual contact along a boundary or at a point.

26 (6) “CQA/CQC Report” means a report that summarizes all inspection, testing, data
27 collection, data analysis and any corrective actions completed as part of CQA or CQC for a project.

28 (7) “Dairy facility” means the entire dairy site, including the production area and the land
29 application area, where the discharge and associated activities will or do take place.

30 (8) “Dairy rules” means Sections 20.6.2.3200 through 20.6.2.3235 NMAC, as amended.

31 (9) “Discharge volume” means the maximum daily volume in gallons per day of wastewater
32 authorized for discharge by a discharge permit.

33 (10) “EPA” means the United States Environmental Protection Agency.

34 (11) “Existing dairy facility” means a dairy facility that is currently discharging, or has
35 previously discharged and has not been issued a notice from the department verifying that closure and post-
36 closure monitoring activities have been completed.

*Attachment 1 – Revised Petition – Proposed Amendment to 20.6.2 NMAC
January 29, 2010*

1 (12) “Existing impoundment” means an impoundment that is currently receiving or has ever
2 received wastewater or collected stormwater and that has not been closed pursuant to a discharge permit.

3 (13) “Expiration” means the date upon which the term of a discharge permit ends.

4 (14) “Field” means a unit of irrigated cropland within the land application area cultivated in
5 the same manner to grow a specific crop for the uptake and removal of nutrients.

6 (15) “Flow meter” means a device used to measure the volume of water, wastewater or
7 stormwater that passes a particular reference section in a unit of time.

8 (16) “Freeboard” means the vertical distance between the elevation at the lowest point of the
9 top inside edge of the impoundment or spillway and the elevation of the water level in the impoundment.

10 (17) “Impoundment” means any structure designed and used for storage or disposal by
11 evaporation of wastewater, stormwater, or a combination of both wastewater and stormwater, or used for
12 solids settling. A multiple-cell impoundment system having at least one shared berm or barrier whose
13 smallest cells have a cumulative constructed capacity of 10 percent or less of the constructed capacity of
14 the largest cell shall be considered a single impoundment for the purposes of these dairy rules.

15 (18) “Land application area” means irrigated and cultivated fields collectively authorized by
16 a discharge permit to receive wastewater or stormwater applications as a source of nutrients managed for
17 crop production.

18 (19) “Land application data sheet” means a form used to report all nitrogen inputs applied to
19 each field within the land application area, including the cropping status of the field at the time of
20 application (i.e., fallow, corn, wheat, etc.).

21 (20) “New dairy facility” means a dairy facility that has never before discharged wastewater.

22 (21) “Permittee” means a person who is issued or receives by transfer a discharge permit for
23 a dairy facility or who makes or controls a discharge at a dairy facility.

24 (22) “Production area” means that part of the animal feeding operation that includes the
25 following: the animal confinement areas; the manure, residual solids and compost storage areas; the raw
26 materials storage areas; and the wastewater and stormwater containment areas. The animal confinement
27 areas include but are not limited to open lots, housed lots, feedlots, confinement barns, stall barns, free stall
28 barns, milkrooms, milk centers, cowyards, barnyards, hospital pens and barns, and animal walkways. The
29 manure, residual solids and compost storage areas include, but are not limited to, storage sheds, stockpiles,
30 static piles, and composting piles. The raw materials storage areas include, but are not limited, to feed
31 silos, silage storage areas, feed storage barns, and liquid feed tanks. The wastewater and stormwater
32 containment areas include, but are not limited to, settling separators, impoundments, sumps, runoff
33 drainage channels, and areas within berms and diversions which prohibit uncontaminated stormwater from
34 coming into contact with contaminants.

35 (23) “Spillway” means a structure used for controlled releases from an impoundment
36 designed to receive stormwater, in a manner that protects the structural integrity of the impoundment.

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1 (24) “Stormwater” means direct precipitation and runoff that comes into contact with water
2 contaminants.

3 (25) “Unauthorized discharge” means a release of wastewater, stormwater or other
4 substances containing water contaminants not approved by a discharge permit.

5 (26) “Wastewater” means water, except overflow from the drinking water system and
6 stormwater, that has come into contact with water contaminants as a result of being directly or indirectly
7 used in the operations of a dairy facility including , but not limited to, the following: washing, cleaning, or
8 flushing barns or other roof-covered production areas; washing of animals; spray-cooling of animals
9 (except in open lots); and cooling or cleaning of feed mills and equipment.

10
11 **20.6.2.3203 REQUIREMENTS FOR DISCHARGING FROM DAIRY FACILITIES:**

12 A. No person shall discharge from a dairy facility without a discharge permit. A person
13 intending to discharge from a dairy facility shall submit an application for a discharge permit pursuant to
14 Section 20.6.2.3205 NMAC and remit fees pursuant to 20.6.2.3204 NMAC.

15 B. Permittees, owners of record of a dairy facility and holders of an expired permit are
16 responsible for complying with the dairy rules.

17 C. Sections 20.6.2.3200 through 20.6.2.3235 NMAC apply to a dairy facility.

18 D. Unless otherwise noted in Sections 20.6.2.3200 through 20.6.2.3235 NMAC, the
19 requirements of Sections 20.6.2.3101 through 20.6.2.3114 NMAC apply to a dairy facility.

20 E. Complying with the requirements of Sections 20.6.2.3200 through 20.6.2.3235 NMAC
21 does not relieve a dairy facility’s owner, operator or permittee from complying with the requirements of
22 other applicable local, state and federal regulations or laws.

23
24 **20.6.2.3204 FEES:** Notwithstanding the requirements of 20.6.2.3114 NMAC, an applicant or
25 permittee shall pay fees to the department pursuant to this section.

26 A. An applicant for a discharge permit or a discharge permit renewal for a dairy facility shall
27 remit with the application to the department a filing fee in the amount of one hundred dollars (\$100) and
28 one-half of the applicable permit fee from Table 1 of 20.6.2.3114 NMAC. The filing fee and the permit fee
29 payment remitted with the application are not refundable and may not be applied toward future discharge
30 permit applications. If the department issues a discharge permit, the permittee shall remit a permit fee
31 payment equal to one-tenth of the applicable permit fee from Table 1 of 20.6.2.3114 NMAC on the first
32 occurrence of August 1 after the effective date of the discharge permit, and annually thereafter until the
33 expiration or termination of the discharge permit.

34 B. An applicant for a discharge permit modification separate from a discharge permit
35 renewal shall remit a filing fee of one hundred dollars (\$100) and a permit modification fee with the
36 application. The permit modification fee shall be equal to one-half of the applicable permit fee from Table
37 1 of 20.6.2.3114 NMAC. The filing fee and the permit modification fee payment remitted with the

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1 application are not refundable and may not be applied toward future discharge permit applications.

2 Payment of the permit modification fee shall not relieve a permittee from remitting the permit fee payments
3 required by Subsection A of this section. If the discharge permit modification is required by the secretary
4 outside the context of an enforcement action, a permit modification fee is not required.

5
6 **20.6.2.3205 GENERAL APPLICATION REQUIREMENTS FOR ALL DAIRY FACILITIES:**

7 **A.** Notwithstanding Subsection F of 20.6.2.3106 NMAC, a permittee shall submit an
8 application for renewal of a discharge permit for a dairy facility to the department at least one year before
9 the discharge permit expiration date. Notwithstanding Paragraph (11) of Subsection A of 20.6.2.3107
10 NMAC, a permittee with a discharge permit that will expire while a dairy facility is in the process of
11 completing permanent closure measures or post-closure monitoring shall submit a renewal application for
12 closure to the department at least one year before the discharge permit expiration date.

13 **B.** For a dairy facility that has not been constructed or operated, a permittee shall submit an
14 application for renewal pursuant to Subsection A or may submit a statement to the department at least one
15 year before the discharge permit expiration date certifying that the dairy facility has not been and will not
16 be constructed or operated and that no discharges have occurred or will occur. Upon the department's
17 verification of the certification, the department shall terminate the discharge permit, if necessary, and retire
18 the discharge permit number from use.

19 **C.** Instead of the information required by Subsection C of 20.6.2.3106 NMAC, an applicant:

- 20 (1) for a new discharge permit, shall provide the information and supporting technical
21 documentation pursuant to this section and Section 20.6.2.3206 NMAC;
22 (2) for a renewed or modified discharge permit, shall provide the information and supporting
23 technical documentation pursuant to this section and Section 20.6.2.3207 NMAC; or
24 (3) for a renewed discharge permit for closure, shall provide the information and supporting
25 technical documentation pursuant to this section and Section 20.6.2.3208 NMAC.

26 **D.** The department shall create a discharge permit application form specific to dairy facilities
27 to collect the information required by this section. An applicant shall use the form to provide the
28 information required by this section. An application shall consist of the form and required supporting
29 documentation, regardless of previous submissions. The applicant shall attest to the truth of the
30 information and supporting documentation in the application, and sign the form. The form shall be signed
31 in the presence of a notary and notarized.

32 **E.** If an applicant filing an application for a new discharge permit does not certify that the
33 dairy facility complies with the setback requirements of Section 20.6.2.3216 NMAC, as required by
34 Subsection D of 20.6.2.3206 NMAC, the department shall reject the application. The department shall
35 provide notice of the rejection to the applicant by certified mail.

36 **F.** Within 60 days of the department's receipt of proof of notice pursuant to Subsection D of
37 20.6.2.3108 NMAC, the department shall review the application for technical completeness. If proof of

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1 notice is not submitted to the department pursuant to Subsection D of 20.6.2.3108 NMAC, the department
2 may deny the application.

3 G. For an application to be deemed technically complete, an application shall include the
4 information required by Subsection C of this section. If the department determines that an application is
5 not technically complete, the department shall provide notice of technical deficiency to the applicant by
6 certified mail within 60 days of receipt of the applicant's proof of notice. The applicant shall have 30 days
7 from the date of the notice of technical deficiency to provide the information required by this section.

8 (1) If an application is technically complete, the department shall make available a proposed
9 approval of a discharge permit (i.e., draft discharge permit) or denial of a discharge permit application,
10 pursuant to Subsection H of 20.6.2.3108 NMAC.

11 (2) If an applicant filing an application for a new discharge permit does not provide all
12 information required by this section to the department within 30 days of the date of the notice of technical
13 deficiency, the department shall deny the application. The department shall provide notice of denial to the
14 applicant by certified mail.

15 (3) If an applicant for a renewed or modified discharge permit does not provide all
16 information required by this section to the department within 30 days of the date of the notice of technical
17 deficiency, the department may deny the application or propose a discharge permit for approval consistent
18 with the requirements of these regulations.

19 (a) If the department denies the application, the department shall provide notice of
20 denial to the applicant by certified mail.

21 (b) If the department proposes approval of the discharge permit and the secretary
22 approves the discharge permit, the permittee shall submit the required information in the notice of technical
23 deficiency within 30 days of the effective date of the discharge permit.

24 H. If the department proposes an additional condition in a discharge permit that is not
25 included in the dairy rules, the department shall include a written explanation of the reason for the
26 additional condition with the copy of the proposed approval sent to the applicant pursuant to Subsection H
27 of 20.6.2.3108 NMAC. Written comments about the additional condition may be submitted to the
28 department during the 30-day comment period provided by Subsection K of 20.6.2.3108 NMAC. A
29 hearing may be requested about the additional as provided by Section 20.6.2.3215 NMAC.

30 I. With the exception of Paragraph (3) of Subsection C of 20.6.2.3109 NMAC and provided
31 that the requirements of Section 20.6.2.3205 NMAC are met, the secretary shall approve a discharge permit
32 or deny an application for a discharge permit pursuant to Section 20.6.2.3109 NMAC.

33
34 **20.6.2.3206 APPLICATION REQUIREMENTS FOR NEW DISCHARGE PERMITS:**

35 A. An application for a new discharge permit shall include the information in this section.

36 B. **Contact Information:** An application shall include the:

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1 (1) applicant's name, title and affiliation with the dairy facility, mailing address, and phone
2 number;

3 (2) dairy facility manager's or operator's name, title and affiliation with the dairy facility,
4 mailing address and phone number;

5 (3) application preparer's name, title and affiliation with the dairy facility, mailing address,
6 phone number and signature; and

7 (4) mailing address and phone number of any consultants contracted to assist the dairy
8 facility with compliance with the Water Quality Act and 20.6.2 NMAC.

9 **C. Ownership and Real Property Agreements:**

10 (1) An application shall include the dairy facility owner's name, title, mailing address and
11 phone number.

12 (a) If more than one person has an ownership interest in the dairy facility, then the
13 applicant shall list all persons having an ownership interest in the dairy facility, including their names,
14 titles, mailing addresses and phone numbers.

15 (b) If any corporate entity, including but not limited to a corporation or a limited
16 liability company, holds an ownership interest in the dairy facility, then the applicant shall also list the
17 name(s), as filed with the New Mexico Public Regulation Commission, of the corporate entity, the
18 corporate entity's registered agent's name and address, and the names of each of the corporate entity's
19 directors, officers, members or partners.

20 (2) If the applicant is not the owner of record of the real property upon which the dairy
21 facility is or will be situated, or upon which dairy operations and land application will occur, then the
22 applicant shall submit a copy of any lease agreement or other agreement which authorizes the use of the
23 real property for the duration of the term of the requested permit. Lease prices or other price terms may be
24 redacted.

25 **D. Setbacks:** The applicant shall certify that the setback requirements of Section
26 20.6.2.3216 NMAC are met. An application shall include a scaled map of the dairy facility layout
27 demonstrating that the proposed layout of the dairy facility meets the setback requirements of Section
28 20.6.2.3216 NMAC.

29 **E. Dairy Facility Information and Location:** An application shall include:

30 (1) the dairy facility name, physical address and county; and

31 (2) the Township, Range and Section for the entire dairy facility, which includes the
32 production area and fields within the land application area.

33 **F. Public Notice Preparation:** An application shall include the name of a newspaper of
34 general circulation in the location of the dairy facility for the future display ad publication, the proposed
35 public location(s) for posting of the 2-foot by 3-foot sign, and the proposed off-site public location for
36 posting of the 8.5-inch by 11-inch flyer, as required by Section 20.6.2.3108 NMAC.

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1 **G. Pre-Discharge Total Dissolved Solids Concentration in Ground Water:** Pursuant to
2 Paragraph (3) of Subsection C of 20.6.2.3106 NMAC, an application shall include the pre-discharge total
3 dissolved solids concentration from analytical results of ground water obtained from the on-site test boring
4 pursuant to Subsection Z of 20.6.2.3220 NMAC. A copy of the laboratory analysis stating the pre-
5 discharge total dissolved solids concentration shall be submitted with the application.

6 **H. Discharge Volume:** An application shall include:

- 7 (1) the proposed maximum daily discharge volume, and a description of the methods and
8 calculations used to determine the proposed discharge volume;
- 9 (2) the identification of all sources of wastewater which may include, but are not limited to,
10 hospital barns, maternity barns, bottle-washing operations and parlor/equipment washdown;
- 11 (3) the animal washing method(s) employed and the estimated daily wastewater volume
12 generated by the method(s); and
- 13 (4) information regarding other wastewater discharges (i.e., domestic or industrial) at the
14 dairy facility not generated by dairy operations. Permit identification numbers shall be submitted for those
15 discharges that are already permitted.

16 **I. Wastewater Quality:** An application shall include estimated concentrations of
17 wastewater quality for total dissolved solids, chloride, sulfate, nitrate as nitrogen, total Kjeldahl nitrogen
18 and other constituents of concern related to the standards of 20.6.2.3103 NMAC that may be contained in
19 the wastewater at the dairy facility based on data collected at other dairy facilities with similar discharge(s)
20 volumes and wastewater management systems.

21 **J. Identification and Physical Description of the Dairy Facility:** An application shall
22 include:

- 23 (1) a scaled map of the entire dairy facility pursuant to Subsection W of 20.6.2.3220
24 NMAC;
- 25 (2) the identification of each proposed impoundment, including information about its
26 location, purpose (i.e., to store wastewater or stormwater, or dispose of it by evaporation), liner material
27 and storage or evaporative disposal capacity;
- 28 (3) the identification of each field within the proposed land application area, including
29 information about its location, acreage, proposed method of wastewater and stormwater application and
30 proposed method of irrigation water application;
- 31 (4) the identification of proposed additional wastewater and stormwater system components
32 such as, but not limited to, sumps and mix tanks, including information for each component regarding its
33 location, purpose, construction material, dimensions and capacity; and
- 34 (5) a description of the proposed location of all manure, silage and compost storage areas at
35 the dairy facility, including a description of the proposed method(s) employed to protect each area from
36 stormwater runoff and run-on, and to minimize leachate.

*Attachment I – Revised Petition – Proposed Amendment to 20.6.2 NMAC
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1 **K. Flow Metering:** An application shall describe a dairy facility’s flow metering system
2 pursuant to Subsections K, L, M, N, O and P of 20.6.2.3220 NMAC and Subsections I and J of 20.6.2.3221
3 NMAC, including:

- 4 (1) the identification of the method(s) (i.e., pumped versus gravity flow) of wastewater
5 discharge, stormwater transfer and wastewater and stormwater land application;
6 (2) the proposed flow measurement devices for each flow method; and
7 (3) the identification of flow meter locations.

8 **L. Depth-to-Most-Shallow Ground Water and Ground Water Flow Direction:** An
9 application shall include:

- 10 (1) the depth-to-most-shallow ground water measurements from the one site-specific test
11 boring pursuant to Subsection Z of 20.6.2.3220 NMAC; and
12 (2) the ground water flow direction of the most-shallow ground water beneath the dairy
13 facility shall be based on the most recent regional water level data or published hydrogeologic information.
14 Survey data from nearby monitoring wells and a ground water elevation contour map indicating the
15 direction of ground water flow may be included. The sources of all information used to determine ground
16 water flow direction shall be provided with the application.

17 **M. Monitoring Wells:** An application shall include the proposed monitoring well locations
18 pursuant to Subsections A and B of 20.6.2.3223 NMAC.

19 **N. Surface Soil Survey and Vadose Zone Geology:** An application shall include:

- 20 (1) the most recent regional soil survey map and associated descriptions identifying surface
21 soil type(s); and
22 (2) the lithologic log obtained from the on-site test boring pursuant to Subsection Z of
23 20.6.2.3220 NMAC to identify the geological profile of the vadose zone.

24 **O. Location Map:** An application shall include a location map with topographic surface
25 contours identifying all of the following features located within a one-mile radius of the dairy facility:

- 26 (1) watercourses, lakebeds, sinkholes, playa lakes and springs (springs used to provide water
27 for human consumption shall be so denoted);
28 (2) wells supplying water for a public water system and private domestic water wells;
29 (3) irrigation supply wells; and
30 (4) ditch irrigations systems, acequias, irrigation canals and drains.

31 **P. Flood Zone Map:** An application shall include the most recent 100-year flood zone map
32 developed by the Federal Emergency Management Administration, FEMA, documenting flood potential for
33 the dairy facility, and a description of any engineered measures used for flood protection.

34 **Q. Engineering and Surveying:** Pursuant to Section 20.6.2.3217 NMAC an application
35 shall include:

- 36 (1) plans and specifications for impoundments and associated liners;
37 (2) plans and specifications for a manure solids separator(s); and

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- 1 (3) a grading and drainage report and plan.
- 2 **R. Land Application Area:** For a dairy facility with a land application area, an application
- 3 shall include:
- 4 (1) documentation of irrigation water rights pursuant to Subsection D of 20.6.2.3221
- 5 NMAC;
- 6 (2) a nutrient management plan (NMP) pursuant to Subsections K and L of 20.6.2.3221
- 7 NMAC; and
- 8 (3) a written description of the wastewater sampling location(s) between the manure solids
- 9 separator(s) and wastewater impoundment(s) pursuant to Subsection C of 20.6.2.3225 NMAC.

10

11 **20.6.2.3207 APPLICATION REQUIREMENTS FOR DISCHARGE PERMIT RENEWAL OR**

12 **MODIFICATION:**

13 **A.** An application for a renewed or modified discharge permit shall include the information

14 in this section.

15 **B. Contact Information:** An application shall include the:

- 16 (1) applicant's name, title and affiliation with the dairy facility, mailing address, and phone
- 17 number;
- 18 (2) dairy facility manager's or operator's name, title and affiliation with the dairy facility,
- 19 mailing address and phone number;
- 20 (3) application preparer's name, title and affiliation with the dairy facility, mailing address,
- 21 phone number and signature; and
- 22 (4) mailing address and phone number of any consultants contracted to assist the dairy
- 23 facility with compliance with the Water Quality Act and 20.6.2 NMAC.

24 **C. Ownership and Real Property Agreements:**

25 (1) An application shall include the dairy facility owner's name, title, mailing address and

26 phone number.

27 (a) If more than one person has an ownership interest in the dairy facility, then the

28 applicant shall list all persons having an ownership interest in the dairy facility, including their names,

29 titles, mailing addresses and phone numbers.

30 (b) If any corporate entity, including but not limited to a corporation or a limited

31 liability company, holds an ownership interest in the dairy facility, then the applicant shall also list the

32 name(s), as filed with the New Mexico Public Regulation Commission, of the corporate entity, the

33 corporate entity's registered agent's name and address, and the names of each of the corporate entity's

34 directors, officers, members or partners.

35 (2) If the applicant is not the owner of record of the real property upon which the dairy

36 facility is or will be situated, or upon which dairy operations and land application will occur, then the

37 applicant shall submit a copy of any lease agreement or other agreement which authorizes the use of the

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1 real property for the duration of the term of the requested permit. Lease prices or other price terms may be
2 redacted.

3 **D. Dairy Facility Information and Location:** An application shall include:

- 4 (1) the dairy facility name, physical address and county;
5 (2) the Township, Range and Section for the entire dairy facility, which includes the
6 production area and fields within the land application area; and
7 (3) the date of initial discharge at the dairy facility.

8 **E. Public Notice Preparation:**

9 (1) An application for a modified or renewed and modified discharge permit shall include
10 the name of a newspaper of general circulation in the location of the dairy facility for the future display ad
11 publication, the proposed public location(s) for posting of the 2-foot by 3-foot sign, and the proposed off-
12 site public location for posting of the 8.5-inch by 11-inch flyer, as required by Subsection B of 20.6.2.3108
13 NMAC.

14 (2) An application for a renewed discharge permit without modification shall include the
15 name of a newspaper of general circulation in the location of the dairy facility for the future display ad
16 publication as required by Subsection C of 20.6.2.3108 NMAC.

17 **F. Pre-Discharge Total Dissolved Solids Concentration in Ground Water:** Pursuant to
18 Paragraph (3) of Subsection C of 20.6.2.3106 NMAC, an application shall include the pre-discharge total
19 dissolved solids concentration in ground water, sample source (e.g., upgradient monitoring well, on-site
20 supply well, nearby off-site supply well) and a copy of the laboratory analysis.

21 **G. Discharge Volume:** An application shall include:

- 22 (1) the proposed maximum daily discharge volume and a description of the methods and
23 calculations used to determine the proposed discharge volume;
24 (2) the identification of all sources of wastewater which may include, but are not limited to,
25 hospital barns, maternity barns, bottle-washing operations and parlor/equipment washdown;
26 (3) the animal washing method(s) employed and the estimated daily wastewater volume
27 generated by the method(s); and
28 (4) information regarding other wastewater discharges (i.e., domestic or industrial) at the
29 dairy facility not generated by dairy operations. Permit identification numbers shall be submitted for those
30 discharges that are already permitted.

31 **H. Identification and Physical Description of Dairy Facility:** An application shall
32 include:

- 33 (1) a scaled map of the entire dairy facility pursuant to Subsection W of 20.6.2.3220
34 NMAC;
35 (2) the identification of each proposed, existing and closed impoundment, including
36 information for each impoundment regarding its location, purpose (i.e., to store wastewater or stormwater,

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1 or dispose of it by evaporation), date of original construction, past and existing liner material, date of
2 current liner installation and storage or evaporative disposal capacity;

3 (3) the identification of each existing, proposed, and previously used field within the land
4 application area, including information for each field about its location, date of initial application of
5 wastewater or stormwater, acreage, status with regard to having received wastewater or stormwater (i.e.
6 never, inactive, active), current method of backflow prevention employed, current method of wastewater
7 and stormwater application and current method of irrigation water application;

8 (4) the identification of additional wastewater and stormwater system components such as,
9 but not limited to, sumps and mix tanks, including information for each component regarding its location,
10 purpose, date of original construction, construction material, dimensions and capacity;

11 (5) the settled solids thickness measurements for each existing wastewater and combination
12 impoundment pursuant to Subsection D of 20.6.2.3220 NMAC;

13 (6) a description of proposed and existing method(s) of solids separation pursuant to
14 Paragraph (5) of Subsection C of 20.6.2.3217 NMAC and Subsection F of 20.6.2.3220 NMAC; and

15 (7) a description of the location of all manure, silage and compost storage areas at the dairy
16 facility; and a description of the method(s) employed to protect each area from stormwater runoff and run-
17 on, and to minimize leachate.

18 **I. Flow Metering:** An application shall describe a dairy facility's flow metering system
19 pursuant to Subsections K, L, M, N, O and P of 20.6.2.3220 NMAC and Subsections I and J of 20.6.2.3221
20 NMAC including:

21 (1) the identification of the method(s) (i.e. pumped versus gravity flow) of wastewater
22 discharge, stormwater transfer and wastewater and stormwater land application;

23 (2) a description of the existing and proposed flow measurement devices for each flow
24 method; and

25 (3) the identification of flow meter locations.

26 **J. Depth-to-Most-Shallow Ground Water and Ground Water Flow Direction:**

27 (1) An application for renewal or modification shall provide the depth-to-most-shallow
28 ground water and indicate ground water flow direction beneath the dairy facility on a ground water
29 elevation contour map. The ground water elevation contour map shall be developed based upon the most
30 recent ground water levels obtained with a water level measuring device and survey data from on-site
31 monitoring wells obtained from a survey, pursuant to Section 20.6.2.3223 NMAC.

32 (2) If a dairy facility does not have a monitoring well intersecting most-shallow ground
33 water, an applicant shall provide:

34 (a) the depth-to-most-shallow ground water measurements from the one site-specific
35 test boring pursuant to Subsection Z of 20.6.2.3220 NMAC; and

36 (b) the ground water flow direction of the most-shallow ground water beneath the
37 dairy facility based upon the most recent regional water level data or published hydrogeologic information.

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1 Survey data from nearby monitoring wells and a ground water elevation contour map indicating the
2 direction of ground water flow may be included. The sources of all information used to determine ground
3 water flow direction shall be provided with the application.

4 **K. Monitoring Wells:** An application shall include:

- 5 (1) the construction logs for all existing, on-site monitoring wells, which indicate the date of
6 installation and well driller; and
7 (2) the identification of monitoring well locations, proposed and existing, pursuant to
8 Subsections A and B of 20.6.2.3223 NMAC.

9 **L. Surface Soil Survey and Vadose Zone Geology:** An application shall include:

- 10 (1) the most recent regional soil survey map and associated descriptions identifying surface
11 soil type(s);
12 (2) the lithologic logs from all existing, on-site monitoring wells; and
13 (3) if a dairy facility does not have a monitoring well intersecting most-shallow ground
14 water, the application shall include the lithologic log obtained from the on-site test boring pursuant to
15 Subsection Z of 20.6.2.3220 NMAC to identify the geological profile of the vadose zone.

16 **M. Location Map:** An application shall include a location map with topographic surface
17 contours identifying all of the following features located within a one-mile radius of the dairy facility:

- 18 (1) watercourses, lakebeds, sinkholes, playa lakes and springs (springs used to provide water
19 for human consumption shall be so denoted);
20 (2) wells supplying water for a public water system and private domestic water wells;
21 (3) irrigation supply wells; and
22 (4) ditch irrigations systems, acequias, irrigation canals and drains.

23 **N. Flood Zone Map:** An application shall include the most recent 100-year flood zone map
24 developed by the Federal Emergency Management Administration, FEMA, documenting flood potential for
25 the dairy facility, and a description of any engineered measures used for flood protection.

26 **O. Engineering and Surveying:** An application shall include:

- 27 (1) plans and specifications for new or improved structures and associated liners proposed
28 by the applicant pursuant to Section 20.6.2.3217 NMAC;
29 (2) record drawings and final specifications for existing structures and associated liners. For
30 existing impoundments where record drawings and final specifications do not exist, survey data and
31 capacity calculations shall be submitted pursuant to Subsection C of 20.6.2.3220 NMAC; and
32 (3) a grading and drainage report and plan pursuant to Paragraph (6) of Subsection C of
33 20.6.2.3217 NMAC.

34 **P. Land Application Area:** For a dairy facility with a land application area, an application
35 shall include:

- 36 (1) documentation of irrigation water rights pursuant to Subsection D of 20.6.2.3221
37 NMAC;

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1 (2) documentation confirming the existence of infrastructure necessary to distribute and
2 apply wastewater and stormwater to the land application area pursuant to Subsection G of 20.6.2.3221
3 NMAC;

4 (3) a nutrient management plan (NMP) pursuant to Subsections K and L of 20.6.2.3221
5 NMAC; and

6 (4) a written description of the wastewater sampling location(s) between the manure solids
7 separator(s) and wastewater impoundment(s) pursuant to Subsection C of 20.6.2.3225 NMAC.

8
9 **20.6.2.3208 APPLICATION REQUIREMENTS FOR A DISCHARGE PERMIT FOR**

10 **CLOSURE:** An application for a discharge permit for closure shall include the information required by
11 Subsections B, C, D, E, F, J, K, L, M and N of 20.6.2.3207 NMAC and Paragraphs (1), (2), (3) and (4) of
12 Subsection H of 20.6.2.3207 NMAC. For dairy facilities with or previously having a land application area,
13 the application shall also include Paragraph (2) of Subsection P of 20.6.2.3207 NMAC, specifically
14 pertaining to the past method(s) of wastewater discharge and stormwater application to the land application
15 area.

16
17 **20.6.2.3209 ADDITIONAL PUBLIC NOTICE REQUIREMENTS FOR APPLICATIONS FOR**
18 **NEW DISCHARGE PERMITS:**

19 A. The requirements of this section shall apply to dairy facilities whose application for a
20 new discharge permit is received by the department after the effective date of the dairy rules.

21 B. Instead of the requirement for public notice specified in Paragraph (2) of Subsection B of
22 20.6.2.3108 NMAC, the applicant shall provide written notice of the discharge by mail to owners of record
23 of all properties within a one-mile distance from the boundary of the property where the discharge site is
24 located. If there are no properties other than properties owned by the discharger within a one-mile distance
25 of the boundary of the property where the dairy facility is located, the applicant shall provide notice to
26 owners of record of the next nearest properties not owned by the discharger.

27 C. Proof of notice required by Subsection D of 20.6.2.3108 NMAC shall include an affidavit
28 of mailing(s) and a list of property owner(s) notified pursuant to Subsection B of this section.

29
30 **20.6.2.3210 – 20.6.2.3214: [RESERVED]**

31
32 **20.6.2.3215 PROCEDURES FOR REQUESTING PUBLIC HEARINGS ON PERMITTING**
33 **ACTIONS FOR DAIRY FACILITIES:**

34 A. Requests for a hearing from any person, including the applicant for a discharge permit, on
35 the proposed approval of a discharge permit (i.e., a draft discharge permit) or denial of a discharge permit
36 application shall be postmarked on or before the end of the comment period, and submitted to the
37 department pursuant to Subsection K of 20.6.2.3108 NMAC. The secretary shall deny requests that do not

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1 meet the requirements of Subsection K of 20.6.2.3108 NMAC and this section. The secretary shall provide
2 notice of hearing denial by certified mail to the person(s) requesting a hearing.

3 **B.** The secretary shall deny a request for a hearing on the proposed approval of a discharge
4 permit for a dairy facility (i.e., a draft discharge permit) disputing conditions contained in the dairy rules.
5 Requests for a hearing on the proposed approval of a discharge permit for a dairy facility shall identify the
6 specific additional discharge permit conditions being disputed or requested and the reasons such additional
7 discharge permit conditions are being disputed or requested. Hearings held upon the secretary's approval
8 shall be limited in scope to the disputed or requested additional discharge permit conditions identified in
9 the request for hearing. The secretary shall deny requests for a hearing that fail to identify disputed or
10 requested additional discharge permit conditions and the reasons why the additional discharge permit
11 conditions are disputed or requested . The secretary shall provide notice of hearing denial by certified mail
12 to the person(s) requesting a hearing.

13
14 **20.6.2.3216 SETBACK REQUIREMENTS FOR DAIRY FACILITIES APPLYING FOR NEW**
15 **DISCHARGE PERMITS:**

16 **A.** The setback requirements of this section apply to a dairy facility whose application for a
17 new discharge permit is received by the department after the effective date of the dairy rules.

18 **B.** The setback requirements shall be measured as horizontal map distances as of the receipt
19 date of the application for a new discharge permit by the department.

20 **C.** If the setback requirements apply to a dairy facility, a permittee shall not propose or
21 construct structures that violate the setback as determined as of the receipt date of the application for a new
22 discharge permit by the department.

23 **D. Production Area Setback Requirements:**

24 (1) The production area, excluding feed storage silos, feed storage barns and liquid feed
25 tanks, shall be located:

26 (a) greater than 200 feet from the 100-year flood zone of any watercourse, or from the
27 ordinary high-water mark of any watercourse for which no 100-year flood zone has been established. This
28 setback distance shall not apply to ditch irrigations systems, acequias, irrigation canals and drains;

29 (b) greater than 200 feet (measured from the ordinary high-water mark) from a
30 lakebed, sinkhole or playa lake;

31 (c) greater than 200 feet from any spring identified on a US Geological Survey
32 (USGS) topographic map and not identified as a supply of water for human consumption;

33 (d) greater than 350 feet from a private domestic water well or spring that supplies
34 water for human consumption; and

35 (e) greater than 1000 feet from any water well or spring that supplies water for a
36 public water system as defined by Part 20.7.10 NMAC, unless a wellhead protection program established
37 by the public water system requires a greater distance.

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1 (2) The requirements of Subparagraph (d) of Paragraph (1) of this subsection shall not apply
2 to wells or springs that supply water to the dairy facility for human consumption and are located on the
3 dairy facility.

4 (3) Setback distances for impoundments shall be measured from the top inside edge of the
5 impoundment; distances for all other features shall be measured from the outer extent of the feature.

6 **E. Land Application Area Setback Requirements:**

7 (1) Any field within a land application area shall be located:

8 (a) greater than 100 feet from the 100-year flood zone of any watercourse, or from the
9 ordinary high-water mark of any watercourse for which no 100-year flood zone has been established. This
10 setback distance shall not apply to ditch irrigations systems, acequias, irrigation canals and drains;

11 (b) greater than 100 feet (measured from the ordinary high-water mark) from any
12 lakebed, sinkhole or playa lake;

13 (c) greater than 100 feet from a private domestic water well or spring that supplies
14 water for human consumption; and

15 (d) greater than 200 feet from any water well or spring that supplies water for a public
16 water system as defined by Part 20.7.10 NMAC, unless a wellhead protection program established by the
17 public water system requires a greater distance.

18 (2) The requirements of Subparagraph (c) of Paragraph (1) of this subsection shall not apply
19 to wells or springs that supply water for human consumption to the dairy facility and are located on the
20 dairy facility.

21 (3) Setback distances for fields shall be measured from the outer edge of the field.
22

23 **20.6.2.3217 ENGINEERING AND SURVEYING REQUIREMENTS FOR ALL DAIRY**
24 **FACILITIES:**

25 **A. Practice of Engineering:** All plans and specifications, supporting design calculations,
26 record drawings, final specifications, final capacity calculations, grading and drainage reports and plans,
27 and other work products requiring the practice of engineering shall bear the seal and signature of a licensed
28 New Mexico professional engineer pursuant to the New Mexico Engineering and Surveying Practice Act,
29 Sections 61-23-1 through 61-23-32 NMSA 1978, and the rules promulgated under that authority.

30 **B. Practice of Surveying:** All surveys of wastewater, stormwater, and combination
31 wastewater/stormwater impoundments, monitoring well locations and casing elevations, and other work
32 products requiring the practice of surveying shall bear the seal and signature of a licensed New Mexico
33 professional surveyor pursuant to the New Mexico Engineering and Surveying Practice, Sections 61-23-1
34 through 61-23-32 NMSA 1978, and the rules promulgated under that authority.

35 **C. Engineering Plans and Specifications Requirements:**

36 (1) **Impoundment Plans and Specifications:** An applicant or permittee proposing or
37 required to construct a new impoundment or to improve an existing impoundment, including relining of an

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1 existing impoundment, shall submit detailed and complete construction plans and specifications and
2 supporting design calculations developed pursuant to this section and Section 20.6.2.3220 NMAC. The
3 applicant or permittee proposing or required to construct an impoundment shall document compliance with
4 the requirements of the Dam Safety Bureau of the State Engineer pursuant to Section 72-5-32 NMSA 1978,
5 and rules promulgated under that authority, unless exempt by law from such requirements. The
6 construction plans and specifications for an improvement(s) to an existing impoundment shall address the
7 management of wastewater or stormwater during preparation and construction of the improvements.

8 (a) Construction plans and specifications proposed by the applicant or permittee shall
9 be submitted to the department with the application for a new, renewed or modified discharge permit.

10 (b) Construction plans and specifications not proposed by the applicant or permittee
11 but required to achieve compliance with the dairy rules shall be submitted to the department within 90 days
12 of the effective date of the discharge permit.

13 (2) **Impoundment CQA/CQC:** Construction of a new impoundment or improvement to an
14 existing impoundment shall be done in accordance with a Construction Quality Assurance/Construction
15 Quality Control (CQA/CQC) Plan. A CQA/CQC Plan shall be included as part of the design plans and
16 specifications. The CQA/CQC Plan shall outline the observations and tests to be used to ensure that
17 construction of the impoundment meets, at a minimum, all design criteria, plans and specifications. All
18 testing and evaluation reports shall be signed and sealed by a licensed New Mexico professional engineer
19 experienced in lagoon construction and liner installation. The CQA/CQC Plan shall include, at a minimum,
20 the following elements.

21 (a) The identity of persons responsible for overseeing the CQA/CQC program. The
22 person responsible for overseeing with the CQA/CQC plan shall be a licensed New Mexico professional
23 engineer experienced in lagoon construction and liner installation, and have at least three years experience
24 in lagoon construction and lining.

25 (b) A discussion of how inspections will be performed.

26 (c) The location, availability, applicability and calibration of testing equipment and
27 facilities, both field and laboratory.

28 (d) The procedures for observing and testing the liner material.

29 (e) The procedures for reviewing inspection test results and laboratory and field
30 sampling test results.

31 (f) The actions to be taken to replace or repair liner material should deficiencies be
32 identified.

33 (g) The procedures for seaming synthetic liners.

34 (h) The reporting procedures for all inspections and test data.

35 (3) **Impoundment Improvement - Wastewater/Stormwater Management:** An applicant
36 or permittee proposing or required to improve an existing impoundment, including relining of an existing
37 impoundment, shall submit a plan for managing wastewater or stormwater during the improvement as part

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1 of the design plans and specifications. The plan for wastewater or stormwater management shall include
2 the following minimum elements and be implemented upon department approval:

3 (a) a description of how on-going wastewater discharges or stormwater collection will
4 be handled and disposed of during improvement to the impoundment;

5 (b) a description of how solids and wastewater or stormwater within the impoundment
6 will be removed and disposed of prior to beginning improvement to the impoundment;

7 (c) a schedule for implementation through completion of the project; and

8 (d) if the plan proposes temporary use of a location for the discharge of wastewater
9 not authorized by the effective discharge permit, the applicant or permittee shall request temporary
10 permission to discharge from the department.

11 (4) **Manure Solids Separation Plans and Specifications - New Wastewater System:** An
12 applicant or permittee proposing or required to construct a new manure solids separator as a component of
13 a newly designed wastewater storage or disposal system shall submit construction plans and specifications
14 and supporting design calculations that include the separator, pursuant to this section.

15 (a) Construction plans and specifications proposed by the applicant or permittee shall
16 be submitted to the department with the application for a new, renewed or modified discharge permit.

17 (b) Construction plans and specifications not proposed by the applicant or permittee
18 but required to achieve compliance with the dairy rules shall be submitted to the department within 90
19 days of the effective date of the discharge permit.

20 (5) **Manure Solids Separation Plans and Specifications - Existing Wastewater System:**
21 An applicant or permittee proposing or required to construct a new manure solids separator as a component
22 of an existing wastewater storage or disposal system shall submit a scaled design schematic and supporting
23 documentation, including design calculations. The separator shall be designed to accommodate, at a
24 minimum, the maximum daily discharge volume authorized by the discharge permit, and the volume of
25 manure solids associated with the wastewater discharge. Components of the separator that collect, contain
26 or store manure solids prior to removal or land application shall be designed with an impervious material(s)
27 to minimize generation and infiltration of leachate.

28 (a) A scaled design schematic and supporting documentation for a proposed separator
29 shall be submitted to the department with the application for a new, renewed or modified discharge permit.

30 (b) A scaled design schematic and supporting documentation for a separator not
31 proposed by the applicant or permittee but required to achieve compliance with the dairy rules shall be
32 submitted to the department within 90 days of the effective date of the discharge permit.

33 (6) **Grading and Drainage Report and Plan:** An applicant or permittee shall submit with
34 the application for a new, renewed or modified discharge permit, a grading and drainage report and a
35 grading and drainage plan, including supplemental information associated with the plan.

36 (a) The grading and drainage report shall include, at a minimum, the following
37 information: a description of the drainage concept for the dairy facility; a description of existing drainage

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1 conditions at the dairy facility; a description of the proposed post-development drainage conditions; a
2 description of the calculations performed to support the drainage analysis; and a map prepared from a 7.5
3 minute quadrangle map showing the dairy facility location and drainage basin influences on drainage flows
4 at the dairy facility from on-site and off-site locations.

5 (b) The grading and drainage plan shall include, at a minimum, the following
6 information: north arrow and scale; property boundaries; delineation of off-site watersheds that contribute
7 drainage to the dairy facility; permanent benchmark locations, descriptions and elevations; existing and
8 proposed land contours; spot elevations at key points, grade breaks, critical locations, floors or pads of
9 existing and proposed structures, and inverts of piping associated with the drainage system; identification
10 of all existing and proposed on-site structures, including drainage features; identification of internal
11 contributory drainage areas, including roof areas, parking lots, and other disturbed areas; flows in cubic
12 feet/second and flow lines defined by arrows and spot elevations; and details of impoundments, inlets,
13 rundowns, emergency spillways, impoundment outlets, slopes, and all other significant drainage structures
14 with contours, cross-sections and spot elevations.

15 (c) Supplemental information supporting the grading and drainage plan shall be
16 submitted to the department with the plan and shall include, at a minimum, the following information:
17 calculations for both existing and post-development drainage conditions; hydraulic calculations
18 demonstrating capacity or adequacy of existing and proposed stormwater impoundments; hydraulic
19 calculations demonstrating capacity of existing and proposed conveyance channels to contain and transport
20 runoff to the stormwater impoundment(s); and a description of computer software, documents, circulars,
21 manuals, etc. used to develop the drainage calculations.

22 (7) **Flow Metering Plans and Specifications:** An applicant or permittee proposing or
23 required to install a flow meter(s) shall submit construction plans and specifications for each device.

24 (a) Construction plans and specifications proposed by the applicant or permittee shall
25 be submitted to the department with the application for a new, renewed or modified discharge permit.

26 (b) Construction plans and specifications not proposed by the applicant or permittee
27 but required to achieve compliance with the dairy rules shall be submitted to the department within 90
28 days of the effective date of the discharge permit.

29 **D. Engineering Design Requirements:**

30 (1) **Impoundment Capacities – Wastewater or Wastewater/Stormwater Combination:**

31 (a) Capacity requirements for dairy facilities discharging to a land application area:

32 (i) The wastewater impoundments intended to store wastewater prior to
33 discharging to a land application area shall be designed to contain collectively the maximum daily
34 discharge volume authorized by the discharge permit for a minimum period of 60 days to accommodate
35 periods when land application is not feasible, while preserving two feet of freeboard.

36 (ii) The combination wastewater/stormwater impoundments intended to contain
37 both wastewater and stormwater runoff for storage prior to discharging to a land application area shall be

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1 designed to contain collectively the maximum daily discharge volume authorized by the discharge permit
2 for a minimum period of 60 days to accommodate periods when land application is not feasible; and
3 stormwater runoff and direct precipitation as specified by current EPA regulatory requirements for
4 Concentrated Animal Feeding Operations pursuant to 40 Code of Federal Regulations, Parts 122 and 412, as
5 amended, while preserving two feet of freeboard.

6 (b) Capacity requirements for dairy facilities discharging to an evaporative wastewater
7 disposal system:

8 (i) The wastewater impoundments intended to dispose of wastewater by
9 evaporation shall be designed to contain collectively the maximum daily discharge volume authorized by
10 the discharge permit for disposal by evaporation, while preserving two feet of freeboard.

11 (ii) The combination wastewater/stormwater impoundments intended to dispose
12 of both wastewater and stormwater runoff by evaporation shall be designed to contain collectively the
13 maximum daily discharge volume authorized by the discharge permit; and stormwater runoff and direct
14 precipitation as specified by current EPA regulatory requirements for Concentrated Animal Feeding
15 Operations pursuant to 40 Code of Federal Regulations, Parts 122 and 412, as amended, for disposal by
16 evaporation while preserving two feet of freeboard.

17 (c) An impoundment designed and used for solids settling shall not be used to satisfy
18 the impoundment capacity requirements of this subsection.

19 (2) **Impoundment Capacity - Stormwater:** Stormwater impoundments intended to contain
20 only stormwater shall be designed to contain stormwater runoff and direct precipitation as specified by
21 current EPA regulatory requirements for Concentrated Animal Feeding Operations pursuant to 40 Code of
22 Federal Regulations, Parts 122 and 412, as amended.

23 (3) **Stormwater Conveyance Channels:** Stormwater conveyance channels shall be
24 designed to contain and transport stormwater runoff and direct precipitation to stormwater impoundments
25 as specified by current EPA regulatory requirements for Concentrated Animal Feeding Operations pursuant to
26 40 Code of Federal Regulations, Parts 122 and 412, as amended.

27 (4) **Impoundment Design and Construction - General:** Impoundments shall meet the
28 following design and construction requirements:

29 (a) the inside slopes shall be a maximum of three (horizontal) to one (vertical), and a
30 minimum of four (horizontal) to one (vertical);

31 (b) the outside slopes shall be a maximum of three (horizontal) to one (vertical);

32 (c) the sub-grade shall be compacted to a minimum of 95 percent of standard proctor
33 density;

34 (d) the finished grade of the floor of the impoundment shall be as uniform as possible
35 and shall not have surface deviations which vary more than +/- 1.5 inches from the finished grade; and

36 (e) the minimum dike width shall be eight feet to allow vehicle traffic for
37 maintenance.

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1 (5) **Impoundment Design and Construction - Liner:** All impoundments shall be lined in
2 accordance with this section, unless otherwise specified in the dairy rules. Impoundment liners shall meet
3 the following additional design and construction requirements.

4 (a) The liner shall be installed with sufficient slack in the liner material to
5 accommodate shrinkage due to temperature changes. Folds in the liner material shall not be present in the
6 completed liner.

7 (b) The sub-grade shall be free of sharp rocks, vegetation and stubble to a depth of at
8 least six inches below the liner. Liners shall be placed on a sub-grade of sand or fine soil. The surface in
9 contact with the liner shall be smooth to allow for good contact between liner and sub-grade. The surface
10 shall be dry during liner installation.

11 (c) The liner shall be anchored in an anchor trench. The trench shall be a minimum of
12 12 inches wide, 12 inches deep and shall be set back at least 24 inches from the top inside edge of the
13 impoundment.

14 (d) The liner panels shall be oriented such that all sidewall seams are vertical.

15 (e) A liner vent system shall be installed if an impoundment is installed over areas of
16 decomposing organic materials.

17 (f) Any opening in the liner through which a pipe or other fixture protrudes shall be
18 sealed in accordance with the liner manufacturer's requirements. Liner penetrations shall be detailed in the
19 construction plans and record drawings.

20 (g) The liner shall be installed by, or the installation supervised by, an individual that
21 has the necessary training and experience as required by the liner manufacturer.

22 (h) Manufacturer's installation and field seaming guidelines shall be followed.

23 (i) Liner seams shall be field tested by the installer and verification of the adequacy of
24 the seams shall be submitted to department along with the record drawings.

25 (j) Concrete slabs installed on top of a liner for operational purposes shall be
26 completed in accordance with manufacturer and installer recommendations to ensure liner integrity.

27 (6) **Impoundment Liner – Wastewater or Wastewater/Stormwater Combination:** An
28 applicant or permittee proposing or required to construct a new or to improve an existing wastewater or
29 combination wastewater/stormwater impoundment, shall, at a minimum, utilize a liner meeting the
30 following requirements.

31 (a) Where the vertical distance between the seasonal high ground water level and the
32 finished grade of the floor of the impoundment is less than or equal to 50 feet as documented through the
33 most recent ground water data obtained from an on-site test boring(s) or monitoring well(s), the
34 impoundment shall, at a minimum, utilize an upper (primary) and lower (secondary) liner. The upper liner
35 material shall be a minimum of 60-mil high density polyethylene (HDPE) or other material having
36 equivalent characteristics with regard to permeability, resistance to degradation by ultraviolet light,
37 compatibility with the liquids anticipated to be collected in the impoundment, tensile strength, and tear and

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1 puncture resistance. The lower liner material shall be a minimum of 40-mil HDPE or other material having
2 equivalent characteristics with regard to permeability, compatibility with the liquids anticipated to be
3 collected in the impoundment, tensile strength, and tear and puncture resistance. A leak detection system
4 shall be constructed between the upper and lower liners and shall consist of a drainage layer, filter layer,
5 fluid collection pipes, fluid collection sumps, and fluid removal system.

6 (i) A drainage layer shall be constructed of granular soil materials or
7 geosynthetic drainage net (geonet). The drainage material shall have a hydraulic conductivity of 10^{-2}
8 centimeters/second or greater. The drainage layer shall be constructed with a slope of at least two percent.

9 (ii) A filter layer shall be constructed above the drainage layer and below the
10 upper liner. A filter layer above a granular drainage layer shall be composed of granular soil materials that
11 are finer than the granular drainage layer or a geotextile filter fabric. A geotextile filter fabric shall be used
12 as a filter layer above a geosynthetic drainage net. A filter layer shall provide for adequate flow of fluid
13 through the filter while providing adequate retention of fine particles.

14 (iii) Perforated fluid collection pipes shall be installed to transmit fluid from the
15 drainage layer to a fluid collection sump(s). Collection pipe material, diameter, wall thickness, and slot
16 size and distribution shall be sufficient to prevent deflection, buckling, collapse or other failure. Collection
17 pipes shall be installed with slopes equivalent to the slope of the drainage layer. Collection pipe systems
18 shall be designed to allow for cleaning of all collection pipes with standard pipe cleaning equipment.

19 (iv) A fluid removal system shall be installed to remove fluid from the leak
20 detection system. The fluid removal system shall consist of a sump(s), a dedicated pump(s), an automated
21 pump activation system that activates the pump(s) when a specific fluid level is reached in a sump(s), a
22 totalizing flow meter to measure the volume of leachate pumped from the system, and an
23 automated alarm system that provides warning of pump failure.

24 (b) Where the vertical distance from the seasonal high ground water level and the
25 finished grade of the floor of the impoundment is greater than 50 feet as documented through the most
26 recent ground water data obtained from an on-site test boring(s) or monitoring well(s), the impoundment
27 shall, at a minimum, utilize a single liner that is at least 60-mil HDPE or other material having equivalent
28 characteristics with regard to permeability, resistance to degradation by ultraviolet light, compatibility with
29 the liquids anticipated to be collected in the impoundment, tensile strength, and tear and puncture
30 resistance.

31 (7) **Impoundment Liner - Stormwater:** Any applicant or permittee proposing or required
32 to improve an existing stormwater impoundment shall, at a minimum, utilize a liner that is at least 60-mil
33 HDPE or other material having equivalent characteristics with regard to permeability, resistance to
34 degradation by ultraviolet light, compatibility with the liquids anticipated to be collected in the
35 impoundment, tensile strength, and tear and puncture resistance.

36 (8) **Separation Between Impoundments and Ground Water:** Impoundments shall not be
37 constructed in a location where the vertical distance between the seasonal high ground water level and the

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1 finished grade of the floor of the impoundment is less than or equal to four feet as documented through the
2 most recent ground water data obtained from an on-site test boring(s) or monitoring well(s).

3 (9) **Impoundment Spillways:** Impoundments intended to contain only wastewater shall not
4 be designed with a spillway.

5
6 **20.6.2.3218 ADDITIONAL ENGINEERING DESIGN REQUIREMENTS FOR DAIRY
7 FACILITIES WITH A LAND APPLICATION AREA: [RESERVED]**

8
9 **20.6.2.3219 ADDITIONAL ENGINEERING DESIGN REQUIREMENTS FOR DAIRY
10 FACILITIES DISCHARGING TO AN EVAPORATIVE WASTEWATER DISPOSAL SYSTEM:
11 [RESERVED]**

12
13 **20.6.2.3220 OPERATIONAL REQUIREMENTS FOR ALL DAIRY FACILITIES:**

14 **A. Notice of Presence of Livestock and Wastewater Discharge:** A permittee shall
15 provide written notice to the department of the commencement, cessation, or recommencement of
16 wastewater discharge or the placement, removal, or reintroduction of livestock as follows.

17 (1) **For new dairy facilities.**

18 (a) **Placement of Livestock.** A permittee shall provide written notice to the
19 department a minimum of 90 days before the placement of any livestock at the dairy facility. A permittee
20 shall provide written verification to the department of the actual date of placement of any livestock within
21 30 days of placement.

22 (b) **Commencement of Wastewater Discharge:** A minimum of 90 days prior to the
23 estimated initial wastewater discharge date a permittee shall provide written notice to the department
24 indicating the date discharge is proposed to commence. A permittee shall provide written verification to
25 the department of the actual date of discharge commencement within 30 days of commencement.

26 (2) **For existing dairy facilities:**

27 (a) **Removal or Reintroduction of Livestock:** A permittee shall provide written
28 notice to the department indicating the date of removal of all livestock from the dairy facility or the date of
29 reintroduction of any livestock at the dairy facility, if all livestock were previously removed, within 30 days
30 of livestock removal or reintroduction.

31 (b) **Cessation of Wastewater Discharge:** A permittee shall provide written notice to
32 the department indicating the date wastewater discharge ceased at the dairy facility within 30 days of the
33 cessation of discharge.

34 (c) **Recommencement of Wastewater Discharge:** Written notification shall be
35 submitted to the department a minimum of 90 days prior to the date wastewater discharge is expected to
36 recommence. A permittee shall provide written notice to the department of the actual date of discharge
37 recommencement within 30 days of recommencement.

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1 **B. Authorized Use of New and Existing Impoundments:** Impoundments shall meet the
2 liner, design, and construction requirements of Subsection D of 20.6.2.3217 NMAC; except an
3 impoundment in existence on the effective date of these regulations that does not meet the requirements of
4 Paragraphs (4) through (9) of Subsection D of 20.6.2.3217 NMAC may continue to receive wastewater or
5 stormwater provided the water contaminant concentration in a ground water sample and in any subsequent
6 ground water sample collected from a monitoring well(s) intended to monitor the impoundment does not
7 exceed:

- 8 (1) any ground water standard of Section 20.6.2.3103 NMAC; or
- 9 (2) the water contaminant concentration in a ground water sample collected from the
10 upgradient monitoring well, if the water contaminant concentration associated with the upgradient
11 monitoring well exceeds the ground water standard(s) of Section 20.6.2.3103 NMAC.

12 **C. Constructed Capacity of Existing Impoundment – Determination:** If record drawings
13 are unavailable or have not been completed for an impoundment constructed before the effective date of the
14 dairy rules to indicate the impoundment capacity of each existing wastewater, stormwater, or combination
15 wastewater/stormwater impoundment, the permittee shall complete an up-to-date survey and capacity
16 calculation for each impoundment. The permittee shall submit the survey data and capacity calculations to
17 the department with the application for a renewed or modified discharge permit.

18 **D. Free-Liquid Capacity of Existing Impoundment – Determination:** An applicant or
19 permittee shall measure the thickness of settled solids in each existing wastewater and combination
20 wastewater/stormwater impoundment during the twelve-month period prior to the submission of an
21 application for a renewed or modified discharge permit and in accordance with the following procedure.

- 22 (1) The total surface area of the impoundment shall be divided into nine equal sub-areas.
- 23 (2) A settled solids measurement device shall be utilized to obtain one settled solids
24 thickness measurement (to the nearest half-foot) per sub-area. The nine settled solids measurements shall
25 be taken on the same day and the date shall be recorded and submitted to the department with the
26 measurements.

27 (3) The nine settled solids measurements shall be averaged.

28 (4) The total volume of settled solids in the impoundment shall be estimated by multiplying
29 the average thickness of the solids layer by the area of the top of the settled solids layer. The area shall be
30 calculated using the impoundment dimensions corresponding to the estimated surface of the settled solids
31 layer.

32 (5) The estimated volume of settled solids shall be subtracted from the design capacity of the
33 impoundment (less two feet of freeboard) to estimate the actual free-liquid capacity.

34 (6) The settled solids measurements, calculations, estimation of total settled solids volume
35 and volume of the actual free-liquid capacity for each impoundment shall be submitted to the department
36 with the application for a renewed or modified discharge permit.

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1 **E. Impoundment Construction or Improvement:** Construction of a new impoundment or
2 improvements to an existing impoundment, including relining of an existing impoundment, shall be
3 performed in accordance with the construction plans and specifications and supporting design calculations
4 submitted with the application for a new, renewed or modified discharge permit, or those submitted after
5 issuance of a discharge permit to achieve compliance with the dairy rules. An applicant or permittee shall
6 notify the department at least five working days before starting construction or improvement of an
7 impoundment to allow for an inspection by department personnel. An applicant or permittee shall submit
8 to the department a Construction Certification Report bearing the seal and signature of a licensed New
9 Mexico professional engineer verifying that installation and construction was completed pursuant to
10 Subsection C of 20.6.2.3217 NMAC. The Construction Certification Report shall include: record
11 drawings, final specifications, final capacity calculations and the CQA/CQC report.

- 12 (1) For new dairy facilities, impoundment construction shall be completed as follows:
- 13 (a) wastewater impoundment construction shall be completed and the Construction
14 Certification Report shall be submitted to the department before discharging wastewater at the dairy
15 facility;
- 16 (b) combination wastewater/stormwater impoundment construction shall be completed
17 and the Construction Certification Report shall be submitted to the department before placing any livestock
18 at the dairy facility; and
- 19 (c) stormwater impoundment construction shall be completed and the Construction
20 Certification Report shall be submitted to the department before placing any livestock at the dairy facility.
- 21 (2) For existing dairy facilities, impoundment construction shall be completed:
- 22 (a) within one year of the effective date of the discharge permit, if construction of a
23 new impoundment or improvement of an existing impoundment is required to achieve compliance with the
24 dairy rules, or pursuant to the contingency timeframe specified in Subsection B of 20.6.2.3227 NMAC
25 when invoked after the effective date of a discharge permit issued pursuant to the dairy rules; and
- 26 (b) the Construction Certification Report shall be submitted to the department within
27 90 days of completion of impoundment construction.

28 **F. Manure Solids Separator Installation:** A permittee shall employ manure solids
29 separation. All wastewater discharges to an impoundment shall be made through a manure solid separator.

30 (1) A permittee installing a new wastewater storage or disposal system shall, before
31 discharging to the new system, construct a manure solids separator(s) in accordance with the construction
32 plans and specifications submitted with the application for a new, renewed or modified discharge permit, or
33 those submitted after issuance of a discharge permit to achieve compliance with the dairy rules. Before
34 discharging to the new system, the permittee shall submit to the department confirmation of solids
35 separator construction, including separator type(s) and location(s).

36 (2) If an existing dairy facility does not employ manure solids separation, the permittee shall
37 construct a manure solids separator(s) within 150 days of the effective date of the discharge permit. The

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1 permittee shall submit confirmation of solids separator construction, including separator type(s) and
2 location(s), to the department within 180 days of the effective date of the discharge permit.

3 **G. Grading and Drainage Report and Plan – Submittal and Implementation:** An
4 applicant or permittee shall complete a new, or improve an existing grading and drainage system, in
5 accordance with the Grading and Drainage Report and Plan required by Subsection C of 20.6.2.3217
6 NMAC and submitted with the application for a new, renewed, or modified discharge permit. An applicant
7 or permittee shall submit a post-development drainage report, including record drawings, bearing the seal
8 and signature of a licensed New Mexico professional engineer.

9 (1) For new dairy facilities, the grading and drainage system shall be completed and the
10 post-development drainage report shall be submitted to the department before placing any livestock at the
11 dairy facility.

12 (2) For existing dairy facilities, the improvements to the grading and drainage system shall
13 be completed within one year of the effective date of the discharge permit. The post-development drainage
14 report shall be submitted to the department within 90 days of completion of improvements.

15 **H. Stormwater Conveyance and Collection:** A permittee shall divert stormwater from the
16 corrals and other applicable areas at the dairy facility (i.e., calf pens, alleys, feed storage and mixing, etc.)
17 into the stormwater or combination wastewater/stormwater impoundment(s) in accordance with the grading
18 and drainage plan required by Subsection C of 20.6.2.3217 NMAC and as specified by current EPA
19 regulatory requirements for Concentrated Animal Feeding Operations pursuant to 40 Code of Federal
20 Regulations, Parts 122 and 412, as amended. Conveyance channels shall be constructed and maintained to
21 minimize ponding and infiltration of stormwater.

22 **I. Stormwater Management – Unlined Impoundment:** A permittee shall transfer
23 stormwater collected in an unlined impoundment(s) to the wastewater impoundment(s) or the distribution
24 system for the land application area after a storm event to minimize the potential for movement to ground
25 water, and to restore the free capacity required by Subsection D of 20.6.2.3217 NMAC. Operational pumps
26 shall be available at the dairy facility at all times for the transfer of stormwater from stormwater
27 impoundment(s) to the wastewater impoundment(s) or the distribution system for the land application area,
28 as authorized by a discharge permit.

29 **J. Stormwater Management – Lined Impoundment:** A permittee shall transfer
30 stormwater collected in a synthetically lined impoundment(s) to the wastewater impoundment(s) or the
31 distribution system for the land application area after a storm event to restore the free capacity required by
32 Subsection D of 20.6.2.3217 NMAC. Operational pumps shall be available at the dairy facility at all times
33 for the transfer of stormwater from stormwater impoundment(s) to the wastewater impoundment(s) or the
34 distribution system for the land application area, as authorized by a discharge permit.

35 **K. Flow Meter Installation:** A permittee shall employ a flow metering system that utilizes
36 flow measurement devices (flow meters) to measure the volume of wastewater discharged at the dairy
37 facility. Flow meters shall be installed in accordance with the plans and specifications submitted with the

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1 application for a new, renewed or modified discharge permit, or those submitted after issuance of a
2 discharge permit to achieve compliance with the dairy rules, pursuant to this section, Subsection C of
3 20.6.2.3217 NMAC, and Subsections I and J of 20.6.2.3221 NMAC. Flow meters shall be physically and
4 permanently labeled with the discharge permit number, meter identification nomenclature as specified in a
5 discharge permit, and the month and year of meter installation. Confirmation of installation shall include a
6 description of the device type, manufacturer, meter identification, location, record drawings, and the results
7 of the initial field calibration completed pursuant to Subsection E of 20.6.2.3224 NMAC.

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

10 (2) An applicant or permittee for an existing dairy facility shall install flow meters within
11 150 days of the effective date of the discharge permit and submit confirmation of flow meter installation to
12 the department within 180 days of the effective date of the discharge permit.

13 **L. Flow Metering Methods:** Flow metering shall be accomplished by the following
14 methods.

15 (1) For pumped flow discharge or transfer situations, an applicant or permittee shall install a
16 closed-pipe velocity sensing totalizing flow meter(s) on the pressurized discharge or transfer line(s).

17 (2) For gravity flow discharge or transfer situations, an applicant or permittee shall install an
18 open-channel primary flow measuring device(s) (flume or weir), equipped with head sensing and totalizing
19 mechanisms, on the discharge or transfer line(s).

20 **M. Flow Meter Locations:** An applicant or permittee shall identify flow meter locations in
21 the application for a new, renewed or modified discharge permit. All flow meters shall be located pursuant
22 to this section and Subsections I and J of 20.6.2.3221 NMAC, and indicated on the scaled map required by
23 Subsection W of this section.

24 **N. Authorized Use of Existing Flow Meters:** An applicant or permittee proposing to use
25 an existing flow meter(s) shall submit documentation demonstrating that the existing flow meter(s) is
26 installed consistent with this section, and Subsections I and J of 20.6.2.3221 NMAC, as appropriate. The
27 proposal shall be submitted with an application for a new, renewed and modified discharge permit and shall
28 include the following documentation:

29 (1) the location of each existing flow meter indicated on the scaled map required by
30 Subsection W of this section and the identification of the wastewater discharge, or wastewater or
31 stormwater application it is intended to measure;

32 (2) a copy of the record drawings or manufacturer plans and technical specifications specific
33 to each existing flow meter; and

34 (3) a field calibration report for each existing flow meter, completed pursuant to Subsection
35 E of 20.6.2.3224 NMAC.

36 **O. Flow Metering - Wastewater to Impoundment:** A permittee shall install flow meters
37 to measure the volume of wastewater discharged from all wastewater sources to the wastewater or

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1 combination wastewater/stormwater impoundment(s). The flow meter(s) shall be installed on the discharge
2 line(s) from all wastewater sources to the wastewater impoundment(s). Meter installation and confirmation
3 of meter installation shall be performed pursuant to this section.

4 **P. Flow Meter Inspection and Maintenance:** A permittee shall visually inspect flow
5 meters on a daily basis for evidence of malfunction. If a visual inspection indicates a flow meter is not
6 functioning to measure flow, the permittee shall repair or replace the meter within 30 days of discovery.
7 The repaired or replaced flow meter shall be installed and calibrated pursuant to the dairy rules.

8 (1) For repaired meters, the permittee shall submit a report to the department with the next
9 quarterly monitoring report following the repair that includes a description of the malfunction; a statement
10 verifying the repair; and a flow meter field calibration report completed pursuant to Subsection E of
11 20.6.2.3224 NMAC.

12 (2) For replacement meters, the permittee shall submit a report to the department with the
13 next quarterly monitoring report following the replacement that includes plans and specifications for the
14 device pursuant to Subsection C of 20.6.2.3217 NMAC, and a flow meter field calibration report completed
15 pursuant to Subsection E of 20.6.2.3224 NMAC.

16 **Q. Impoundment Inspection and Maintenance:** A permittee shall maintain
17 impoundments to prevent conditions which could affect the structural integrity of the impoundments and
18 associated liners. Such conditions include, but are not limited to, erosion damage; animal burrows or other
19 animal damage; the presence of vegetation including aquatic plants, weeds, woody shrubs or trees growing
20 within five feet of the top inside edge of a sub-grade impoundment, within five feet of the toe of the outside
21 berm of an above-grade impoundment, or within the impoundment itself; evidence of seepage; evidence of
22 berm subsidence; and the presence of large debris or large quantities of debris in the impoundments. A
23 permittee shall inspect impoundments and surrounding berms on a monthly basis to ensure proper
24 condition and control vegetation growing around the impoundments in a manner that is protective of the
25 liners. Within 24 hours of discovery, a permittee shall report to the department any evidence of damage
26 that threatens the structural integrity of a berm or liner of an impoundment or that may result in an
27 unauthorized discharge. A permittee is not required to report routine berm maintenance to the department.

28 **R. Leak Detection System Inspection and Maintenance:** A permittee shall inspect and
29 maintain impoundments utilizing primary and secondary liners and equipped with leak detection systems as
30 follows:

31 (1) leachate accumulation within the leak detection system shall be returned to the respective
32 impoundment utilizing an automatically activated pump to minimize hydraulic head on the secondary liner;
33 and

34 (2) the permittee shall inspect the sump(s), dedicated pump(s), automated pump activation
35 system, automated alarm system and totalizing flow meter associated with the leak detection system on a
36 monthly basis for evidence of malfunction. If an inspection indicates malfunction of any of these
37 components, the permittee shall repair the component(s) within 30 days of discovery. The permittee shall

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1 notify the department of component malfunctions and repairs made to components within 60 days of
2 discovery.

3 **S. Pipe and Fixture Inspection and Maintenance:** A permittee shall maintain pipes and
4 fixtures utilized for the conveyance or distribution of wastewater or stormwater at the dairy facility to
5 prevent the unauthorized release of wastewater or stormwater. The permittee shall visually inspect pipes
6 and fixtures on a daily basis for evidence of leaks or failure. Where pipes and fixtures cannot be visually
7 inspected because they are buried, the permittee shall inspect the area directly surrounding the features for
8 evidence of leaks or failure (e.g., saturated surface soil, surfacing wastewater, etc.). If there is evidence an
9 unauthorized discharge has resulted from damaged or faulty pipe(s) or fixture(s), the permittee shall repair
10 or replace the pipe(s) or fixture(s) within 24 hours of discovery. The permittee shall report the
11 unauthorized discharge to the department pursuant to Section 20.6.2.1203 NMAC.

12 **T. Leachate Management - Manure Solids Separation System:** A permittee shall
13 manage the solids captured by and removed from the manure solids separation system(s) and stored at the
14 dairy facility before removal or land application to minimize generation and infiltration of leachate.
15 Leachate from manure solids shall be collected and contained on an impervious surface before disposal.

16 **U. Leachate Management – Manure and Compost Storage:** Unless land application of
17 manure solids and composted materials is authorized by a discharge permit, a permittee shall remove
18 manure solids and composted material from the dairy facility. A permittee shall minimize the generation
19 and infiltration of leachate from stockpiled manure solids and composted material before removal from the
20 dairy facility by diverting stormwater run-on and run-off, and preventing the ponding of water within areas
21 used for manure and compost stockpiling.

22 **V. Leachate Management – Silage Storage:** A permittee shall minimize the ponding of
23 leachate from silage storage areas. Leachate shall be collected and contained on an impervious surface
24 before disposal.

25 **W. Scaled Map of Dairy Facility:** An applicant or permittee shall submit a scaled map of
26 the dairy facility to the department with an application for a new, renewed or modified discharge permit.
27 The map shall be clear and legible, and drawn to a scale such that all necessary information is plainly
28 shown and identified. The map shall show the scale in feet or metric measure, a graphical scale, a north
29 arrow, and the effective date of the map. Documentation identifying the means used to locate the mapped
30 objects (i.e., GPS, land survey, digital map interpolation, etc.) and the relative accuracy of the data (i.e., +/-
31 XX feet or meters) shall be included with the map. Any object that cannot be directly shown due to its
32 location inside of existing structures, or because it is buried without surface identification, shall be
33 identified on the map in a schematic format and identified as such. The map shall include the following
34 objects:

- 35 (1) the overall dairy facility layout (barns, feed storage areas, pens, etc.);
- 36 (2) the location of all sumps;
- 37 (3) the location of all manure solids separators;

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- 1 (4) the location of all wastewater, stormwater, and combination impoundments;
- 2 (5) the location of all mix tanks;
- 3 (6) the location and acreage of each field within the land application area;
- 4 (7) the location of all monitoring wells;
- 5 (8) the location of all irrigation wells;
- 6 (9) the location of all meters measuring wastewater discharges to and from impoundments;
- 7 (10) the location of all meters measuring stormwater applied to the land application area;
- 8 (11) the location of all fixed pumps for discharge and transfer of wastewater or stormwater;
- 9 (12) the location of all wastewater and stormwater distribution pipelines;
- 10 (13) the location of each ditch irrigation system, acequia, irrigation canal and drain;
- 11 (14) the location of all backflow prevention;
- 12 (15) all wastewater sampling locations, with the exception of impoundments for disposal by
- 13 evaporation; and
- 14 (16) location of all septic tanks and leachfields.

15 **X. Scaled Map of Dairy Facility - Updates:** Following completion of additions or changes
16 to the dairy facility layout which affects items required by Subsection W of this section, a permittee shall
17 update and resubmit to the department the dairy facility map required by this section within 90 days of any
18 additions or changes to the dairy facility layout which affects items required by Subsection W of this
19 section.

20 **Y. Animal Mortality Management:** All animal mortalities intended to be disposed of
21 (buried or composted) on a dairy facility shall be managed in accordance with the following requirements:
22 (1) only mortalities originating at the dairy facility may be disposed of at the dairy facility;
23 (2) mortalities shall not be stored or buried within 200 feet (measured as horizontal map
24 distance) from private or public wells, or any watercourse;
25 (3) mortalities shall not be stored or buried within 100 feet (measured as horizontal map
26 distance) from the 100-year flood zone of any watercourse, as defined by the most recent Federal
27 Emergency Management Administration, FEMA, map;
28 (4) stormwater run-on to disposal areas shall be prevented by use of berms or other physical
29 barriers; and
30 (5) mortalities disposed of by burial shall be placed in a pit(s) where the vertical distance
31 between the seasonal high ground water level and the floor of the pit(s) is greater than 30 feet as
32 documented through the most recent ground water data obtained from an on-site test boring(s) or
33 monitoring well(s).

34 **Z. Determination of Depth-to-Most-Shallow Ground Water and Lithology – Test**
35 **Boring:** An applicant or permittee for a dairy facility without a monitoring well intersecting most-shallow
36 ground water shall provide to the department the depth-to-most-shallow ground water and a lithologic log
37 determined by one site-specific test boring with the application for a new, renewed or modified discharge

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1 permit. The test boring shall be drilled in the area of lowest elevation within the production area. The
2 boring advancement shall cease upon encountering most-shallow ground water. Depth-to-most-shallow
3 ground water shall be measured immediately upon ceasing drilling of the boring and again 24 hours
4 following ceasing drilling. Lithology shall be characterized pursuant to American Society of Testing and
5 Materials (ASTM) Test Method D 2487 or D 2488.

6 **AA. Domestic Wastewater:** Domestic wastewater shall not be commingled with wastewater
7 or stormwater generated at a dairy facility. Domestic wastewater shall be treated or disposed of pursuant to
8 Part 20.7.3 NMAC or a discharge permit issued solely for the discharge of domestic wastewater, as
9 appropriate.

10
11 **20.6.2.3221 ADDITIONAL OPERATIONAL REQUIREMENTS FOR DAIRY FACILITIES**
12 **WITH A LAND APPLICATION AREA:**

13 **A. Impoundment Storage Capacity Management – Wastewater and**
14 **Wastewater/Stormwater Combination:** A permittee shall operate and maintain a wastewater or
15 combination wastewater/stormwater impoundment(s) for the purpose of storing wastewater prior to
16 discharging to the land application area. A permittee shall manage wastewater or combination
17 wastewater/stormwater impoundments to maintain the free-liquid capacity and two feet of freeboard
18 required by Subsection D of 20.6.2.3217 NMAC.

19 **B. Prohibition of Irrigation Water Storage in Permitted Impoundments:** A permittee
20 shall not introduce irrigation water into any impoundment authorized by a discharge permit for the storage
21 of wastewater or stormwater.

22 **C. Authorized Land Application of Wastewater and Stormwater:** A permittee shall
23 apply wastewater and stormwater to fields within the land application area, up to the maximum acreage of
24 irrigated cropland specifically authorized by a discharge permit. Wastewater and stormwater shall be
25 applied evenly over the fields in which application is occurring, and ponding shall be minimized.

26 **D. Irrigation Water Rights – Documentation:** An applicant or permittee shall submit
27 documentation of irrigation water rights from the Office of the State Engineer for all fields within the land
28 application area to the department with the application for a new, renewed or modified discharge permit.
29 Land application shall not be authorized unless the documentation demonstrates adequate water rights are
30 held for irrigation to produce and harvest the crops necessary for the removal of nitrogen as required in this
31 section.

32 **E. Land Application Area – Fresh Irrigation Water Required:** Wastewater shall only be
33 applied to fields within the land application area receiving fresh irrigation water. Fresh irrigation water
34 shall be used as the primary source to meet the water consumptive needs of the crop to support crop
35 production and nutrient removal. Wastewater and stormwater are intended as sources of crop nutrients and
36 shall not be used as a primary source to meet the water consumptive needs of the crop.

37 **F. Wastewater/Irrigation Water Blending:** A permittee shall not combine wastewater

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1 with irrigation water in an impoundment or in the fresh irrigation water supply lines. Wastewater may be
2 blended in a mix-tank(s), applied alternately in the same irrigation line which has been physically
3 disconnected from supply wells or in a separate line, as authorized by a discharge permit.

4 **G. Land Application Area – Existing Infrastructure:** An applicant or permittee shall
5 submit documentation for the existing infrastructure necessary to transfer, distribute and apply wastewater
6 or stormwater to all fields within the land application area that have previously received wastewater or
7 stormwater to the department with the application for a new, renewed or modified discharge permit. The
8 documentation shall consist of a narrative statement and photographic documentation that confirm the
9 existing land application distribution system including the type(s) and location(s) of the systems, and the
10 method(s) of backflow prevention employed.

11 **H. Land Application Area – New Infrastructure:** Before the initial application of
12 wastewater or stormwater to any field within the land application area that has not previously received
13 wastewater or stormwater, an applicant or permittee shall install a land application distribution system to
14 distribute wastewater and stormwater to all fields that will be receiving wastewater and stormwater. The
15 land application distribution system shall be utilized to distribute and apply wastewater and stormwater to
16 fields within the land application area to meet the requirements of this section. Before the initial
17 application of wastewater or stormwater to any field within the land application area, an applicant or
18 permittee shall submit documentation confirming installation of the land application distribution system,
19 including the type(s) and location(s) of the system(s), and the method(s) employed for backflow
20 prevention.

21 **I. Flow Metering - Wastewater to Land Application Area:** A permittee shall install flow
22 meters to measure the volume of wastewater discharged from the wastewater or combination
23 wastewater/stormwater impoundments to the land application area. The flow meter(s) shall be installed on
24 the discharge line(s) from the wastewater impoundment(s) to the distribution system for the land
25 application area. Meter installation and confirmation of meter installation shall be performed pursuant to
26 Subsection K, L, and N of 20.6.2.3220 NMAC.

27 **J. Flow Metering - Stormwater to Land Application Area:** For a dairy facility
28 transferring stormwater from a stormwater impoundment directly to a distribution system for the land
29 application area, a permittee shall install flow meters to measure the volume of stormwater applied directly
30 to the land application area. The flow meter(s) shall be installed on the transfer line(s) from the stormwater
31 impoundment(s) to the distribution system for the land application area. Meter installation and
32 confirmation of meter installation shall be performed pursuant to Subsection K, L, and N of 20.6.2.3220
33 NMAC.

34 **K. Nutrient Management Plan:** Nutrients and other constituents present in wastewater and
35 stormwater shall be applied to irrigated cropland under cultivation in accordance with the requirements of a
36 nutrient management plan (NMP) submitted to the department with the application for a new, renewed, or
37 modified discharge permit. The amount of nitrogen from all combined nitrogen sources, including but not

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1 limited to wastewater, stormwater, manure solids, composted material, irrigation water and other additional
2 fertilizer(s), along with residual soil nitrogen and nitrogen credits from leguminous crops, shall be applied
3 to each field within the land application area in accordance with the NMP. The NMP shall contain all
4 components identified in the Natural Resources Conservation Service General Manual Title 190, Part 402,
5 and the Natural Resources Conservation Service Conservation Practice Standard 590 for New Mexico. The
6 NMP shall be developed, signed and dated annually by an individual certified by the American Society of
7 Agronomy as a Certified Crop Advisor (CCA) or Certified Professional Agronomist (CPAg) and by an
8 individual certified by the New Mexico Natural Resources Conservation Service as a Nutrient Management
9 Planner. Plant material and soil sampling protocols in the NMP shall be, at a minimum, equivalent to the
10 requirements of Subsections I, K, and L of 20.6.2.3225 NMAC. The NMP shall identify the method of
11 crop removal to be employed. The NMP shall be developed for the term of the discharge permit, updated
12 annually, and implemented pursuant to the dairy rules. The permittee shall submit annual updates to the
13 NMP to the department in the monitoring report due by May 1 of each year.

14 **L. Crop Removal – Mechanical or Grazing:** A permittee shall remove crops from fields
15 within the land application area by mechanical harvest unless an alternative proposal for the use of grazing
16 is submitted with the application for a new, renewed, or modified discharge permit. If grazing is the
17 method proposed for crop removal, the nutrient management plan (NMP) prepared pursuant to Subsection
18 K of this section shall include a proposal for the use of grazing for crop removal by means of an actively
19 managed rotational grazing system which promotes uniform grazing and waste distribution throughout the
20 field(s) (and pastures within the field). Proposals shall quantify the degree of nitrogen removal expected to
21 be achieved by grazing, and shall provide scientific documentation supporting the estimated nitrogen
22 removal and justification for the selection of input parameters used in calculations or computer modeling.
23 The NMP proposing grazing for crop removal shall be implemented in its entirety. Annual updates to the
24 NMP shall include updates to the grazing plan as well as report actual weight gains, actual nitrogen uptake
25 of the crop, and estimated crop and nutrient removal from the previous season. An NMP which proposes
26 grazing for crop removal shall also include, at a minimum, the following elements:

- 27 (1) the length of the grazing season;
- 28 (2) the size and number of animals to be grazed;
- 29 (3) the estimated weight gain of animals to be grazed;
- 30 (4) the calculations to determine stocking rates and total acreage needed;
- 31 (5) the plant species used to establish pastures and the pasture renovation practices to be
32 employed;
- 33 (6) the yield of plant species grown in each pasture and the forage supplied on a monthly
34 basis; and
- 35 (7) the grazing management system employed and a map indicating key features of the
36 system including water tanks, fencing, and pasture layout with numbering system and acreage of each
37 pasture.

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1 **M. Crop Removal - Changes to Method(s):** If a permittee proposes to change the
2 method(s) of crop removal on any field within the land application area authorized by the discharge permit,
3 the permittee shall apply to modify the discharge permit. The permittee shall submit an application which
4 includes the proposed change(s) pursuant to Subsection K and L of this section. The permittee shall not
5 implement the changes unless the department issues a modified permit approving the changes.

6 **N. Irrigation Ditches – Inspection and Maintenance:** Irrigation ditches used to land apply
7 wastewater or stormwater at a dairy facility shall be concrete-lined with sealed expansion joints. The
8 permittee shall visually inspect the ditch system on a monthly basis to ensure proper maintenance. Any
9 damage to a lined ditch shall be repaired immediately. A log shall be kept on-site documenting the
10 inspection findings and repairs made, and the log shall be made available to the department upon request.

11 **O. Backflow Prevention:** A permittee shall protect all water wells used within the land
12 application distribution system from contamination by wastewater or stormwater backflow by installing
13 and maintaining backflow prevention. Backflow prevention shall be achieved by a total disconnect
14 (physical air gap) between the fresh irrigation water and wastewater and stormwater delivery systems.

15 (1) A permittee for a new dairy facility shall install backflow prevention and submit written
16 confirmation of installation to the department before discharging at the dairy facility.

17 (2) A permittee for an existing dairy facility that lacks backflow protection as required by
18 this subsection shall install backflow prevention within 90 days of the effective date of the discharge
19 permit. The permittee shall submit written confirmation of installation to the department within 180 days
20 of the effective date of the discharge permit.

21 **P. Supply Well Protection:** With the exception of monitoring wells, all wells located on a
22 dairy facility shall have a surface pad constructed in accordance with the recommendations of Subsection G
23 of 19.27.4.29 NMAC and a permanent well cap or cover pursuant to Subsection I of 19.27.4.29 NMAC.

24

25 **20.6.2.3222 ADDITIONAL OPERATIONAL REQUIREMENTS FOR DAIRY FACILITIES**
26 **DISCHARGING TO AN EVAPORATIVE WASTEWATER DISPOSAL SYSTEM: Impoundment**
27 **Evaporative Capacity – Wastewater and Wastewater/Stormwater Combination:** A wastewater or
28 combination wastewater/stormwater impoundment shall be operated and maintained for the purpose of
29 disposing of wastewater or both wastewater and stormwater by evaporation. A permittee shall manage
30 wastewater or combination wastewater/stormwater impoundments to maintain the capacity and two feet of
31 freeboard as required by Subsection D of 20.6.2.3217 NMAC.

32

33 **20.6.2.3223 GROUND WATER MONITORING REQUIREMENTS FOR ALL DAIRY**
34 **FACILITIES:**

35 **A. Monitoring Wells – Required Locations:** A permittee shall monitor ground water
36 quality hydrologically downgradient of each source of ground water contamination, including but not
37 limited to wastewater, stormwater, and combination wastewater/stormwater impoundments, and fields

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1 within the land application area. Monitoring wells shall be located pursuant to this section to detect an
2 exceedance(s) or a trend towards exceedance(s) of the ground water standards at the earliest possible
3 occurrence, so that source control or abatement may be implemented as soon as possible.

4 (1) **Ground Water Monitoring – Wastewater Impoundments:** A minimum of one
5 monitoring well shall be located hydrologically downgradient and within 75 feet (measured as horizontal
6 map distance) of the top inside edge of each wastewater impoundment, including previously utilized
7 impoundments to which wastewater discharge has ceased.

8 (a) For a new dairy facility, monitoring wells shall be installed before discharging at
9 the dairy facility.

10 (b) For an existing dairy facility, monitoring wells shall be installed within 120 days
11 of the effective date of the discharge permit.

12 (c) A permittee constructing a new impoundment at an existing dairy facility shall
13 install the monitoring well(s) required to monitor ground water hydrologically downgradient of the
14 impoundment s before discharging wastewater to the impoundment or within 120 days of the completion of
15 the impoundment, whichever occurs first.

16 (2) **Ground Water Monitoring – Combination Wastewater/Stormwater**
17 **Impoundments:** A minimum of one monitoring well shall be located hydrologically downgradient and
18 within 75 feet (measured as horizontal map distance) of the top inside edge of each combination
19 wastewater/stormwater impoundment, including previously utilized impoundments to which wastewater
20 discharge or stormwater collection has ceased.

21 (a) For a new dairy facility, monitoring wells shall be installed before the earlier of the
22 following:

- 23 (i) placing any livestock at the dairy facility; or
- 24 (ii) discharging wastewater to at the dairy facility.

25 (b) For an existing dairy facility, monitoring wells shall be installed within 120 days
26 of the effective date of the discharge permit.

27 (c) A permittee constructing a new impoundment at an existing dairy facility shall
28 install the monitoring well(s) required to monitor ground water hydrologically downgradient of the
29 impoundment before discharging wastewater to the impoundment, before collecting stormwater in the
30 impoundment or within 120 days of the completion of the impoundment, whichever occurs first.

31 (3) **Ground Water Monitoring – Stormwater Impoundments:** A minimum of one
32 monitoring well shall be located hydrologically downgradient and within 75 feet (measured as horizontal
33 map distance) of the top inside edge of each stormwater impoundment, including previously utilized
34 impoundments to which stormwater collection has ceased.

35 (a) For a new dairy facility, monitoring wells shall be installed before placing any
36 livestock at the dairy facility.

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1 (b) For an existing dairy facility, monitoring wells shall be installed within 120 days
2 of the effective date of the discharge permit.

3 (c) A permittee constructing a new impoundment at an existing dairy facility shall
4 install the monitoring well(s) required to monitor ground water hydrologically downgradient of the
5 impoundment before collecting stormwater in the impoundment(s) or within 120 days of the completion of
6 the impoundment, whichever occurs first.

7 (4) **Ground Water Monitoring – Land Application Area:** Monitoring wells intended to
8 monitor ground water hydrologically downgradient of fields within the land application area shall be
9 installed as follows.

10 (a) **Flood Irrigation:** Ground water monitoring shall be performed hydrologically
11 downgradient of each flood irrigated field or grouping of contiguous flood irrigated fields. For every 40
12 acres or less of a single flood irrigated field or a single grouping of contiguous flood irrigated fields, a
13 minimum of one monitoring well shall be located hydrologically downgradient and within 50 feet
14 (measured as horizontal map distance) of the downgradient boundary of the single field or single grouping
15 of contiguous fields, including previously utilized fields to which application of wastewater or stormwater
16 has ceased. Flood irrigated fields separated by ditch irrigation systems, acequias and drains shall be
17 considered contiguous for the purpose of this subsection.

18 (i) For a new dairy facility, monitoring wells shall be installed before
19 discharging at the dairy facility.

20 (ii) For an existing dairy facility, monitoring wells shall be installed within 120
21 days of the effective date of the discharge permit.

22 (iii) A permittee activating a new flood irrigated field at an existing dairy
23 facility shall install the monitoring well(s) required to monitor ground water hydrologically downgradient
24 of the field before applying wastewater or stormwater to the field.

25 (b) **Sprinkler or Drip Irrigation:** Ground water monitoring shall be performed
26 hydrologically downgradient of each sprinkler or drip irrigated field, or grouping of contiguous sprinkler or
27 drip irrigated fields. For every 125 acres or less of a single sprinkler or drip irrigated field, or a single
28 grouping of 125 contiguous acres of sprinkler or drip irrigated fields, a minimum of one monitoring well
29 shall be located hydrologically downgradient and within 50 feet (measured as horizontal map distance) of
30 the downgradient boundary of the single field or single grouping of contiguous fields, including previously
31 utilized fields to which application of wastewater or stormwater has ceased. Sprinkler or drip irrigated
32 fields separated by ditch irrigation systems, acequias and drains shall be considered contiguous for the
33 purpose of this subsection.

34 (i) For a new dairy facility, monitoring wells shall be installed before
35 discharging at the dairy facility.

36 (ii) For an existing dairy facility, monitoring wells shall be installed within 120
37 days of the effective date of the discharge permit.

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1 (iii) A permittee activating a new sprinkler or drip irrigated field at an existing
2 dairy facility shall install the monitoring well(s) required to monitor ground water hydrologically
3 downgradient of the field before applying wastewater or stormwater to the field.

4 (c) **Crop Harvest by Grazing:** Notwithstanding the requirements of Subparagraphs
5 (a) and (b) of this paragraph, a minimum of one monitoring well(s) shall be located hydrologically
6 downgradient and within 50 feet (measured as horizontal map distance) of the downgradient boundary of
7 each field where grazing is proposed in an nutrient management plan (NMP) as an alternative to, or in
8 conjunction with, crop removal by mechanical harvest.

9 (5) **Ground Water Monitoring – Upgradient:** A minimum of one monitoring well shall
10 be located hydrologically upgradient of all ground water contamination sources at a dairy facility in order
11 to establish ground water quality conditions at a location not likely to be affected by contamination sources
12 at the dairy facility.

13 (a) For a new dairy facility, monitoring wells shall be installed before discharging at
14 the dairy facility.

15 (b) For an existing dairy facility, monitoring wells shall be installed within 120 days
16 of the effective date of the discharge permit.

17 (6) **Use of Existing Monitoring Wells:** A monitoring well in existence before the effective
18 date of the dairy rules shall be approved for ground water monitoring at a dairy facility provided all of the
19 following requirements are met.

20 (a) The monitoring well is located at the location previously approved by the
21 department.

22 (b) The monitoring well:

23 (i) if intended to monitor ground water quality near a contamination source, is
24 located downgradient of the source based on current hydrologic conditions and is located no more than 100
25 feet hydrologically downgradient (measured as a horizontal map distance) from the contamination source;
26 or

27 (ii) if intended to monitor ground water quality at a location not likely to be
28 affected by contamination sources, is located hydrologically upgradient of sources at the dairy facility.

29 (c) The monitoring well is constructed with a screen length consistent with the
30 construction requirements of this section or an alternative screen length previously approved by the
31 department, and the screened interval intersects with the most-shallow ground water, and

32 (i) the alternative screen length is no greater than 30 feet; or

33 (ii) the monitoring well has a water column within the screened interval of no
34 more than 25 feet in length based upon the most recent ground water level obtained with a water level
35 measuring device pursuant Section 20.6.2.3223 NMAC.

36 (d) The monitoring well construction log, the scaled dairy facility map and the ground
37 water elevation contour map, and a copy of the department's written approval of an alternate screen length

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1 or recent ground water level data, as appropriate, is submitted with the application for a renewed or
2 renewed and modified discharge permit verifying that the requirements of Subparagraphs (a), (b), and (c) of
3 this paragraph are met.

4 (7) **Exceptions to Monitoring Well Requirements:** When appropriate, based on the
5 documented ground water flow direction, one monitoring well may be authorized by a discharge permit to
6 monitor ground water hydrologically downgradient of more than one contamination source under any of
7 the following circumstances.

8 (a) Contiguous impoundments are oriented along a line that is parallel or
9 approximately parallel to the direction of ground water flow beneath the impoundments.

10 (b) Adjacent impoundments are oriented along a line that is parallel or approximately
11 parallel to the direction of ground water flow beneath the impoundments and separated by a distance of 50
12 feet or less as measured from the top inside edge of one impoundment to the nearest top inside edge of the
13 adjacent impoundment.

14 (c) Adjacent or adjacent groupings of contiguous sprinkler or drip irrigated fields are
15 oriented along a line that is parallel or approximately parallel to the direction of ground water flow beneath
16 the fields and the average depth-to-most-shallow ground water measured in on-site monitoring wells
17 pursuant to Subsection F of this section or measured in a site-specific test boring pursuant to Subsection Z
18 of 20.6.2.3220 NMAC is 300 feet or greater. A monitoring well(s) installed hydrologically downgradient
19 of a sprinkler or drip irrigated field or a grouping of sprinkler or drip irrigated fields pursuant to Paragraph
20 (4) of this subsection may be authorized by a discharge permit to monitor ground water hydrologically
21 downgradient of not more than two adjacent sprinkler or drip irrigated fields or adjacent groupings of
22 sprinkler or drip irrigated fields.

23 (8) **Requirement for Third Monitoring Well:** If fewer than three monitoring wells are
24 needed to satisfy the ground water monitoring requirements of Paragraphs (1) through (7) of this
25 subsection, a third monitoring well shall be installed within 75 feet of the contamination source and in a
26 location alternate to the downgradient monitoring well required by this subsection. The third monitoring
27 well shall be installed in an alternative location that allows for the determination of ground water flow
28 direction pursuant to this section.

29 **B. Monitoring Wells – Location Proposals:** An applicant or permittee shall identify
30 monitoring well locations in the application for a new, renewed or modified discharge permit pursuant to
31 Subsection A of this section, and shall include the following information:

32 (1) the location of each monitoring well relative to the contamination source it is intended to
33 monitor shall be indicated on the scaled map required by Subsection W of 20.6.2.3220 NMAC;

34 (2) a written description of the specific location for each monitoring well including the
35 horizontal map distance (in feet) and compass bearing of each monitoring well from the top inside edge of
36 the impoundment berm or edge of the field it is intended to monitor; and

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1 (3) the ground water flow direction beneath the dairy facility used to determine the
2 monitoring well location(s), including supporting documentation used to determine ground water flow
3 direction.

4 **C. Monitoring Wells – Identification Tags:** A permittee shall identify all monitoring wells
5 required by the dairy rules with a well identification tag. For above-grade wells, the tag shall be affixed to
6 the exterior of the steel well shroud using rivets, bolts or a steel band. For wells finished below-grade, the
7 tag shall be placed inside the well vault next to the well riser. The tag shall be:

8 (1) made of aluminum;
9 (2) at least two inches by four inches in size;
10 (3) for monitoring wells installed after the effective date of the dairy rules, the tag shall be
11 engraved with:

12 (i) the discharge permit number;
13 (ii) the well identification nomenclature specified in a discharge permit;
14 (iii) the name and New Mexico well driller license number of the well driller
15 who drilled the well; and
16 (iv) the month and year of well installation; and

17 (4) for monitoring wells installed before the effective date of the dairy rules and satisfying
18 the requirements of Paragraph (6) of Subsection A of this section, the tag shall be engraved with:

19 (i) the discharge permit number;
20 (ii) the well identification nomenclature specified in a discharge permit; and
21 (iii) if available, the name and New Mexico well driller license number of the
22 well driller who drilled the well, and the month and year of well installation.

23 **D. Monitoring Wells – Construction and Completion:** A permittee shall construct
24 monitoring wells pursuant to Part 19.27.4 NMAC and the following requirements.

25 (1) All well drilling activities shall be performed by an individual with a current and valid
26 well driller license issued by the State of New Mexico pursuant to Part 19.27.4 NMAC.

27 (2) The well driller shall employ drilling methods that allow for accurate determinations of
28 water table locations. All drill bits, drill rods, and down-hole tools shall be thoroughly cleaned
29 immediately before drilling. The bore hole diameter shall allow a minimum annular space of two inches
30 between the outer circumference of the well materials (casing or screen) and the bore hole wall to allow for
31 the emplacement of sand and sealant.

32 (3) After completion, the well shall be allowed to stabilize for a minimum of 12 hours before
33 development is initiated.

34 (4) The well shall be developed so that formation water flows freely through the screen and
35 is not turbid, and all sediment and drilling disturbances are removed from the well.

36 (5) Schedule 40 (or heavier) PVC pipe, stainless steel pipe, or carbon steel pipe shall be used
37 as casing. The casing shall have an inside diameter not less than two inches. The casing material selected

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1 for use shall be compatible with the anticipated chemistry of the ground water and appropriate for the
2 contaminants of interest at the dairy facility. The casing material and thickness selected for use shall have
3 sufficient collapse strength to withstand the pressure exerted by grouts used as annular seals and thermal
4 properties sufficient to withstand the heat generated by the hydration of cement-based grouts.

5 (6) Casing sections shall be joined using welded, threaded, or mechanically locking joints;
6 the method selected shall provide sufficient joint strength for the specific well installation.

7 (7) The casing shall extend from the top of the screen to at least one foot above ground
8 surface. The top of the casing shall be fitted with a removable cap, and the exposed casing shall be
9 protected by a locking steel well shroud. The shroud shall be large enough in diameter to allow easy access
10 for removal of the cap. Alternatively, monitoring wells may be completed below grade. In this case, the
11 casing shall extend from the top of the screen to six to twelve inches below the ground surface; the
12 monitoring wells shall be sealed with locking, expandable well plugs; a flush-mount, watertight well vault
13 that is rated to withstand traffic loads shall be placed around the wellhead; and the cover shall be
14 secured with at least one bolt. The vault cover shall indicate that the wellhead of a monitoring well is
15 contained within the vault.

16 (8) A 20-foot section (maximum) of continuous well screen shall be installed across the
17 water table. Screen shall consist of continuous-slot, machine slotted, or other manufactured Schedule 40
18 (or heavier) PVC or stainless steel. Screens created by cutting slots into solid casing with saws or other
19 tools shall not be used. The screen material selected for use shall be compatible with the anticipated
20 chemistry of the ground water and appropriate for the contaminants of interest at the dairy facility. The
21 screen slot size shall be selected to retain 90 percent of the filter pack.

22 (a) Requests for a 30-foot section of continuous well screen may be authorized by a
23 discharge permit when the most recent two years of ground water level data demonstrates a declining water
24 level trend of at least two feet per year. Data supporting ground water levels shall be specific to monitoring
25 wells located at the dairy facility and obtained with a water level measuring device as required by
26 Subsection F of this section.

27 (b) Requests for a 30-foot section of continuous well screen shall be submitted to the
28 department in the application for a new, renewed or modified discharge permit.

29 (9) Screen sections shall be joined using welded, threaded, or mechanically locking joints.
30 The method selected shall provide sufficient joint strength for the specific well installation and shall not
31 introduce constituents that may reasonably be considered contaminants of interest at the dairy facility. A
32 cap shall be attached to the bottom of the well screen. Sumps (i.e., casing attached to the bottom of a well
33 screen) shall not be installed.

34 (10) The bottom of the screen shall be installed no more than 15 feet below the water table,
35 or no more than 25 feet below the water table when additional screen length is authorized by a discharge
36 permit. The top of the well screen shall be positioned not less than five feet above the water table. The
37 well screen slots shall be appropriately sized for the formation materials.

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1 (11) Casing and well screen shall be centered in the borehole by installing centralizers near
2 the top and bottom of the well screen.

3 (12) A filter pack shall be installed around the screen by filling the annular space from the
4 bottom of the screen to two feet above the top of the screen with clean silica sand. The filter pack shall be
5 properly sized to exclude the entrance of fine sand, silt, and clay from the formation into the monitoring
6 well. For wells deeper than 30 feet, the sand shall be emplaced by a tremmie pipe. The well shall be
7 surged or bailed to settle the filter pack and additional sand added, if necessary, before the bentonite seal is
8 emplaced.

9 (13) A bentonite seal shall be constructed immediately above the filter pack by emplacing
10 bentonite chips or pellets (three-eighths inch in size or smaller) in a manner that prevents bridging of the
11 chips/pellets in the annular space. The bentonite seal shall be three feet in thickness and hydrated with
12 clean water. Adequate time shall be allowed for expansion of the bentonite seal before installation of the
13 annular space seal.

14 (14) The annular space above the bentonite seal shall be sealed with a bentonite-cement
15 grout (five lbs. of powdered bentonite, 94 lbs. of Portland cement, and six and a half to eight and a half
16 gallons of clean water), neat cement grout (94 lbs. of Portland cement and five to six gallons of clean
17 water), or bentonite grout (20 percent solids, created by mixing 50 lbs. of bentonite grout with 24 gallons of
18 clean water). Emplacement of the annular space seal shall be performed by using a tremmie pipe (flow by
19 gravity or pumping through the pipe). Annular space seals shall extend from the top of the bentonite seal to
20 the ground surface (for wells completed above grade) or to a level three to six inches below the top of
21 casing (for wells completed below grade).

22 (15) A concrete pad (two-foot minimum radius, four-inch minimum thickness) shall be
23 poured around the shroud or well vault and wellhead. The concrete and surrounding soil shall be sloped to
24 direct rainfall and runoff away from the wellhead.

25 **E. Monitoring Wells – OSE Requirements:** Should a well permit for a monitoring well
26 be required by the Office of the State Engineer, the permittee shall obtain the permit prior to well drilling.

27 **F. Ground Water Sample Collection Procedure:** A permittee shall perform all ground
28 water sample collection, preservation, transport and analysis according to the following procedure.

29 (1) Depth-to-most-shallow ground water shall be measured from the top of well casing at
30 point of survey to the nearest 0.01 feet using an electronic water level indicator consisting of dual
31 conductor wire encased in a cable or tape graduated to 0.01 feet, a probe attached to the end of the
32 conductor wire, and a visual or audible indicator.

33 (2) Monitoring wells shall be purged before sample collection by one of the following
34 methods:

35 (a) three well volumes of water shall be purged from the well before sample
36 collection; or

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1 (b) the monitoring well shall be purged until measurements of indicator parameters
2 (pH, specific conductance, and temperature) have stabilized. Indicator parameters shall be measured
3 periodically during purging. A parameter stabilization log shall be kept during each sampling event for
4 each monitoring well and include: date; water quality indicator parameter measurements; time for all
5 measurements; and the purge volume extracted. Indicator parameters are considered stable when three
6 consecutive readings made no more than five minutes apart fall within the following ranges: temperature \pm
7 10 percent; pH \pm 0.5 units; specific conductance \pm 10 percent.

8 (3) Following purging and immediately before sample collection the following field
9 parameters shall be measured and recorded: pH, specific conductance, and temperature.

10 (4) In-line flow-through cells shall be disconnected or by-passed during sample collection, if
11 used during purging.

12 (5) Samples from the well shall be obtained, prepared, preserved and transported to an
13 analytical laboratory for analysis pursuant to the methods authorized by Subsection B of 20.6.2.3224
14 NMAC.

15 **G. Ground Water Sampling and Reporting - Routine:** A permittee shall collect ground
16 water samples quarterly from all monitoring wells required by Subsection A of this section and Subsection
17 C of 20.6.2.3227 NMAC. Samples shall be analyzed for nitrate as nitrogen, total Kjeldahl nitrogen,
18 chloride, sulfate and total dissolved solids pursuant to Subsection B of 20.6.2.3224 NMAC. A permittee
19 shall submit to the department in the quarterly monitoring reports the depth-to-most-shallow ground water,
20 the field parameter measurements, the parameter stabilization log (if applicable), the analytical results
21 (including the laboratory quality assurance and quality control summary report) and a map showing the
22 location and number of each well in relation to the contamination source it is intended to monitor.

23 **H. Ground Water Sampling – New Monitoring Wells:** A permittee shall collect ground
24 water samples from all newly installed monitoring wells. Samples shall be analyzed for nitrate as nitrogen,
25 total Kjeldahl nitrogen, chloride, sulfate and total dissolved solids pursuant to Subsection B of 20.6.2.3224
26 NMAC.

27 (1) Samples shall be collected from the newly installed monitoring wells at new dairy
28 facilities before discharging at the dairy facility.

29 (2) Samples shall be collected from the newly installed monitoring wells at existing dairy
30 facilities within 150 days of the effective date of the discharge permit.

31 (3) For dairy facilities installing a new monitoring well during the term of a discharge
32 permit, during construction of a new impoundment, or as a result of required corrective actions, samples
33 shall be collected from the newly installed monitoring wells within 30 days of well completion.

34 **I. Monitoring Well Survey and Ground Water Flow Determination:** A permittee shall
35 survey monitoring wells to a U.S. Geological Survey (USGS) benchmark. Survey data shall include
36 northing, easting and elevation to the nearest hundredth of a foot or shall be in accordance with the
37 "Minimum Standards for Surveying in New Mexico", Part 12.8.2 NMAC. A survey elevation shall be

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1 established at the top-of-casing, with a permanent marking indicating the point of survey. The survey shall
2 be completed and bear the seal and signature of a licensed New Mexico professional surveyor. Depth-to-
3 most-shallow ground water shall be measured from the point of survey to the nearest hundredth of a foot in
4 all surveyed wells pursuant to Subsection F of this section, and the data shall be used to develop a map
5 showing the location of all monitoring wells and the direction and gradient of ground water flow at the
6 dairy facility.

7 (1) For a new dairy facility, monitoring wells shall be surveyed before discharging at the
8 dairy facility.

9 (2) For an existing dairy facility, monitoring wells not previously surveyed in a manner
10 consistent with the requirements of this subsection and Subsection B of 20.6.2.3217 NMAC shall be
11 surveyed within 150 days of the effective date of the discharge permit.

12 **J. Monitoring Well Completion Report:** A permittee shall submit to the department a
13 monitoring well completion report pertaining to all monitoring wells. For a new dairy facility, the report
14 shall be submitted before discharging at the dairy facility. For an existing dairy facility, the report shall be
15 submitted within 180 days after the effective date of the discharge permit or within 60 days of completion
16 as specified in a discharge permit. The report shall contain the following information:

17 (1) construction and lithologic logs for the new monitoring wells including well record
18 information specified by Part 19.27.4 NMAC;

19 (2) depth-to-most-shallow ground water measured in each new and existing monitoring well;

20 (3) survey data and a survey map showing the locations of each new and existing monitoring
21 well and a ground water elevation contour map developed pursuant to Subsection L of this section; and

22 (4) analytical results of ground water samples collected from the new monitoring wells,
23 including laboratory quality assurance and quality control summary reports, and field parameter
24 measurements.

25 **K. Monitoring Well Survey Report – Existing Monitoring Wells:** For a dairy facility
26 required to survey existing monitoring wells pursuant to this section a permittee shall submit the
27 monitoring well survey report to the department within 180 days of the effective date of the discharge
28 permit. The report shall contain the depth-to-most-shallow ground water measured in each monitoring
29 well, a surveyed map showing the locations of the monitoring wells, and the direction and gradient of
30 ground water flow at the dairy facility.

31 **L. Ground Water Elevation Contour Maps:** A permittee shall develop ground water
32 elevation contour maps on a quarterly basis using data associated with all monitoring wells used for ground
33 water monitoring at the dairy facility. Top of casing elevation data, obtained from monitoring well surveys
34 completed pursuant to this section and quarterly depth-to-most-shallow ground water measurements in
35 monitoring wells, shall be used to calculate ground water elevations at monitoring well locations. Ground
36 water elevations between monitoring well locations shall be estimated using common interpolation
37 methods. Ground water elevations shall be expressed in feet. A contour interval appropriate to the data

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1 shall be used, but in no case shall the interval be greater than two feet. Ground water elevation contour
2 maps shall depict the ground water flow direction, using arrows, based on the orientation of the ground
3 water elevation contours, and the location and identification of each monitoring well, impoundment, and
4 field within the land application area. A permittee shall submit ground water elevation contour maps to the
5 department in the quarterly monitoring reports.

6 **M. Monitoring Well Inspection:** The department may perform downhole inspections of all
7 monitoring wells. At least 60 days before the inspection, the department shall provide written notice to the
8 permittee by certified mail stating the inspection date and identifying the monitoring wells to be inspected.
9 At least 48 hours before the department's inspection, the permittee shall remove all existing dedicated
10 pumps to allow adequate settling time of sediment agitated from pump removal. If a permittee decides to
11 install a dedicated pump in a monitoring well, the permittee shall notify the department so that the
12 department may have the opportunity to perform a downhole well inspection before pump installation.

13
14 **20.6.2.3224 MONITORING REQUIREMENTS FOR ALL DAIRY FACILITIES:**

15 **A. Monitoring Reports – Schedule of Submittal:** A permittee shall submit monitoring
16 reports to the department on a quarterly schedule and shall contain monitoring data and information
17 collected pursuant to the dairy rules. Quarterly monitoring reports shall be submitted according to the
18 following schedule:

- 19 (1) January 1 through March 31 (first quarter) – report due by May 1;
- 20 (2) April 1 through June 30 (second quarter) – report due by August 1;
- 21 (3) July 1 through September 30 (third quarter) – report due by November 1; and
- 22 (4) October 1 through December 31 (fourth quarter) – report due by February 1.

23 **B. Sampling and Analysis Methods:** A permittee shall sample and analyze water pursuant
24 to Subsection B of 20.6.2.3107 NMAC. Sampling and analysis of soil shall be conducted in accordance
25 with "Methods of Soil Analysis: Part 1. Physical and Mineralogical Methods" and "Methods of Soil
26 Analysis: Part 2. Chemical and Microbiological Properties," published by the American Society of
27 Agronomy.

28 **C. Wastewater Volume Measurement and Reporting:** A permittee shall measure the
29 daily volume of all wastewater discharged to the wastewater impoundment(s) using flow meters. The
30 permittee shall include daily meter readings including the date, time and units of each measurement, and
31 daily volumes of wastewater discharged to the wastewater impoundments, reported in gallons, in the
32 quarterly monitoring reports submitted to the department.

33 **D. Stormwater Sampling and Reporting:** A permittee shall collect stormwater samples on
34 a quarterly basis from each stormwater impoundment. The samples shall be collected as soon as possible
35 after a storm event and before transferring the stormwater to a wastewater impoundment(s) or a land
36 application area. The samples shall be analyzed for nitrate as nitrogen, total Kjeldahl nitrogen, chloride,
37 sulfate and total dissolved solids pursuant to this section. The permittee shall include analytical results, or a

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1 statement that stormwater runoff did not occur, in the quarterly monitoring reports submitted to the
2 department.

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

- 12 (1) the location and meter identification nomenclature identified by the department through
13 a discharge permit;
- 14 (2) the method of flow meter field calibration employed;
- 15 (3) the measured accuracy of each flow meter prior to adjustment indicating the positive or
16 negative offset as a percentage of actual flow as determined by an in-field calibration check;
- 17 (4) the measured accuracy of each flow meter following adjustment, if necessary, indicating
18 the positive or negative offset as a percentage of actual flow of the meter; and
- 19 (5) any flow meter repairs made during the previous year or during field calibration.

20 **F. Primary Liner Leakage Measurement, Analysis and Reporting:** A permittee shall
21 monitor impoundments utilizing primary and secondary liners and equipped with leak detection systems in
22 the following manner.

23 (1) The monthly volume of leachate pumped from the leak detection system(s) back into the
24 respective impoundment(s) shall be measured using a totalizing flow meter(s). The permittee shall submit
25 monthly meter readings including units of measurement, and monthly volumes to the department in the
26 quarterly monitoring reports.

27 (2) Monthly meter volumes of leachate shall be used to determine the average daily leakage
28 rate for the respective impoundment. The average daily leakage rate shall be compared to the pump rate to
29 assure that the automated pump system is capable of removing leachate at a rate sufficient to ensure
30 leachate accumulation in the drainage layer is minimized. The permittee shall submit a report documenting
31 that the pump system is operating effectively to the department in the quarterly monitoring reports.

32 (3) Upon initial discovery of leachate in the leak detection system(s), a leachate sample shall
33 be collected from the system and analyzed for nitrate as nitrogen, total Kjeldahl nitrogen, chloride, sulfate
34 and total dissolved solids pursuant to this section. The permittee shall submit the analytical results to the
35 department in the next quarterly monitoring report. Should leachate continue to accumulate in the leak
36 detection system such that it is routinely pumped, the permittee shall collect a leachate sample on a
37 quarterly basis, analyze the sample as described above and submit the results to the department in the

1 quarterly monitoring reports.

2
3 **20.6.2.3225 ADDITIONAL MONITORING REQUIREMENTS FOR DAIRY FACILITIES**
4 **WITH A LAND APPLICATION AREA:**

5 **A. Volume of Wastewater and Wastewater/Stormwater Land Applied – Measurement**
6 **and Reporting:** A permittee shall measure all wastewater discharges from a wastewater or combination
7 wastewater/stormwater impoundment to each field within the land application area using flow meters. A
8 permittee shall maintain a log recording the date and location of each discharge, flow meter readings
9 immediately prior to and after each discharge, and the calculated total volume of each discharge reported in
10 gallons and acre-feet. A permittee shall submit a copy of the log entries including units of measurement to
11 the department in the quarterly monitoring reports.

12 **B. Volume of Stormwater Land Applied – Measurement and Reporting:** A permittee
13 shall measure all stormwater applications from a stormwater impoundment to each field within the land
14 application area using flow meters. A permittee shall maintain a log recording the date and location of each
15 application, flow meter readings immediately prior to and after each application, and the calculated total
16 volume of each application reported in gallons and acre-feet. A permittee shall submit a copy of the log
17 entries including units of measurement to the department in the quarterly monitoring reports.

18 **C. Wastewater to be Land Applied – Sampling and Reporting:** A permittee shall collect
19 and analyze wastewater samples on a quarterly basis for nitrate as nitrogen, total Kjeldahl nitrogen,
20 chloride, sulfate and total dissolved solids pursuant to Subsection B of 20.6.2.3224 NMAC. Samples shall
21 be collected during active milking from a location between the manure solids separator(s) and wastewater
22 impoundment(s) for each separator associated with an individual parlor. Wastewater samples shall be
23 collected from the sampling location(s) proposed in the application for a new, renewed and modified
24 discharge permit, and specified in the discharge permit. A permittee shall submit the analytical results to
25 the department in the quarterly monitoring reports.

26 **D. Manure Solids – Nitrogen Content:** The nitrogen content of the manure solids applied
27 to each field within the land application area shall be estimated at 25 pounds of nitrogen per ton. Should a
28 permittee choose to use actual nitrogen content values of on-site manure solids, the permittee shall collect a
29 composite sample on an annual basis. The composite sample shall consist of a minimum of 30 sub-samples
30 collected on the same day and thoroughly mixed. Manure samples shall be analyzed for total Kjeldahl
31 nitrogen and moisture content. The permittee shall submit the analytical results to the department in the
32 quarterly monitoring reports.

33 **E. Irrigation Water – Sampling, Volume Applied, and Reporting:** A permittee shall
34 monitor irrigation wells used to supply fresh water to the fields within the land application area to account
35 for additional potential nitrogen supplied to the land application area in the following manner.

36 (1) Each irrigation well shall be identified in association with the field(s) to which it supplies
37 fresh water.

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1 (2) An annual sample of irrigation water supplied from each well shall be collected and
2 analyzed for nitrate as nitrogen and total Kjeldahl nitrogen, pursuant to Subsection B of 20.6.2.3224
3 NMAC.

4 (3) The annual volume of irrigation water applied to each field within the land application
5 area shall be estimated for each well.

6 (4) The permittee shall submit the analytical results and the estimated annual volume of
7 irrigation water applied from each well to each field within the land application area to the department in
8 the monitoring reports due by May 1.

9 **F. Fertilizer Application Reporting:** A permittee shall maintain a log of all additional
10 fertilizer(s) applied to each field of the land application area. The log shall contain the date of fertilizer
11 application, the type and form of fertilizer, fertilizer analysis, the amount of fertilizer applied in pounds per
12 acre to each field, and the amount of nutrients applied in pounds per acre to each field. The permittee shall
13 submit a copy of the log entries to the department in the quarterly monitoring reports.

14 **G. Land Application Data Sheets:** A permittee shall complete land application data sheets
15 for each field within the land application area to document the crop grown and amount of total nitrogen
16 applied from wastewater, stormwater, manure solids, composted material, irrigation water and other
17 additional fertilizer(s), and the residual soil nitrogen and nitrogen credits from leguminous crops. The
18 permittee shall submit a land application data sheet or a statement that land application did not occur to the
19 department in the quarterly monitoring reports. The land application data sheet shall include the following
20 elements.

21 (1) The information required by Paragraphs (2) through (8) of this subsection from the
22 previous six quarters.

23 (2) The total monthly volume, reported in acre-feet, of wastewater and stormwater applied to
24 each field of the land application area. Total monthly volumes shall be obtained from flow meter readings
25 of each application pursuant to Subsections A and B of this section.

26 (3) The total nitrogen concentration of wastewater and stormwater obtained from the
27 corresponding quarterly analyses collected pursuant to Subsection C of this section and Subsection D of
28 20.6.2.3224 NMAC.

29 (4) The total monthly volume, reported in tons per acre, of manure solids applied to each
30 field within the land application area.

31 (5) The total nitrogen content of the manure solids estimated at 25 pounds of nitrogen per
32 ton or determined from analysis of manure solids samples collected pursuant to Subsection D of this
33 section.

34 (6) The total nitrogen concentration within the irrigation water and the amount of irrigation
35 water applied pursuant to Subsection E of this section.

36 (7) The amount of nitrogen reported in pounds per acre from additional fertilizer(s) applied
37 pursuant to Subsection F of this section.

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1 (8) The amount of residual soil nitrogen and nitrogen from leguminous crops credited to
2 each field within the land application area pursuant to Subsections K and L of this section.

3 **H. Crop Yield Documentation:** A permittee shall submit crop yield documentation and
4 plant and harvest dates of each crop grown to the department in the quarterly monitoring reports. Crop
5 yield documentation shall consist of copies of scale-weight tickets or harvest summaries based on scale-
6 weights.

7 **I. Nitrogen Concentration of Harvested Crop:** A permittee shall determine the total
8 nitrogen concentration of each harvested crop. A composite sample consisting of 15 sub-samples of plant
9 material shall be taken from each field during the final harvest of each crop grown per year. Samples shall
10 be analyzed for percent total nitrogen and percent dry matter. A permittee shall submit the analytical
11 reports to the department in the quarterly monitoring reports.

12 **J. Nitrogen Removal Summary of Harvested Crop:** A permittee shall develop a nitrogen
13 removal summary to determine total nitrogen removed by each crop grown on each field within the land
14 application area. Nitrogen removal shall be determined utilizing crop yield and total nitrogen concentration
15 information collected pursuant to Subsections H and I of this section. A permittee shall submit the
16 summary to the department in the quarterly monitoring reports.

17 **K. Soil Sampling – Initial Event in a Discharge Permit Term:** A permittee shall collect
18 composite soil samples from each field within the land application area for the first soil sampling event
19 during the first year following the effective date of the discharge permit. Composite soil samples shall be
20 collected in the five-month period between September 1 and January 31 for all fields regardless of whether
21 the field is cropped, remains fallow, or has received wastewater or stormwater. One surface composite soil
22 sample (first-foot) and two sub-surface composite soil samples (second-foot and third-foot) shall be
23 collected from each field. Composite soil samples shall be collected and analyzed according to the
24 following procedure.

25 (1) Each surface and sub-surface soil sample shall consist of a single composite of 15 soil
26 cores collected randomly throughout each field. Should a field consist of different soil textures (i.e., sandy
27 and silty clay), a composite soil sample shall be collected from each soil texture within each field.

28 (2) Surface soil samples (first-foot) shall be collected from a depth of 0 to 12 inches.

29 (3) Each second-foot sub-surface soil sample shall be collected from a depth of 12 to 24
30 inches.

31 (4) Each third-foot sub-surface soil sample shall be collected from a depth of 24 to 36
32 inches.

33 (5) Each surface and sub-surface composite sample shall be analyzed for pH, electrical
34 conductivity, total Kjeldahl nitrogen, nitrate as nitrogen, chloride, organic matter, potassium, phosphorus,
35 sodium, calcium, magnesium, sulfate, soil texture, and sodium adsorption ratio.

36 (6) pH, electrical conductivity, sodium, calcium, magnesium, and sulfate shall be analyzed
37 using a saturated paste extract in accordance with the analytical methodology required by Subsection B of

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1 20.6.2.3224 NMAC. Phosphorus shall be analyzed using the Olsen sodium bicarbonate method in
2 accordance with the analytical methodology required by Subsection B of 20.6.2.3224 NMAC. Nitrate as
3 nitrogen shall be analyzed by a 2 molar KCl extract in accordance with the analytical methodology required
4 by Subsection B of 20.6.2.3224 NMAC. Total Kjeldahl nitrogen, chloride, organic matter, potassium, soil
5 texture, and sodium adsorption ratio shall be analyzed in accordance with the analytical methodology
6 required by Subsection B of 20.6.2.3224 NMAC.

7 (7) The permittee shall submit the analytical results and a map showing the fields and the
8 sampling locations within each field to the department in the monitoring report due by May 1 following the
9 effective date of the discharge permit.

10 **L. Soil Sampling – Routine:** Beginning in the year following the initial soil sampling
11 required by this section, the permittee shall collect annual soil samples from each field within the land
12 application area that has received or is actively receiving wastewater or stormwater. Composite soil
13 samples shall be collected in the five-month period between September 1 and January 31. For those fields
14 that have never before received wastewater, the permittee shall collect soil samples immediately before
15 initial wastewater application and annually thereafter. Once a field has received wastewater it shall be
16 sampled annually regardless of whether the field is cropped, remains fallow, or has recently received
17 wastewater or stormwater. One surface composite soil sample (first-foot) and two sub-surface composite
18 soil samples (second-foot and third-foot) shall be collected from each field. Composite soil samples shall
19 be collected and analyzed according to the following procedure.

20 (1) Each surface and sub-surface soil sample shall consist of a single composite of 15 soil
21 cores collected randomly throughout each field. Should a field consist of different soil textures (i.e., sandy
22 and silty clay), a composite soil sample shall be collected from each soil texture within each field.

23 (2) Surface soil samples (first-foot) shall be collected from a depth of 0 to 12 inches.

24 (3) Each second-foot sub-surface soil sample shall be collected from a depth of 12 to 24
25 inches.

26 (4) Each third-foot sub-surface soil sample shall be collected from a depth of 24 to 36
27 inches.

28 (5) Surface soil samples shall be analyzed for pH, electrical conductivity, nitrate as nitrogen,
29 chloride, organic matter, potassium, phosphorus, sodium, calcium, magnesium, and sodium adsorption
30 ratio.

31 (6) Sub-surface soil samples shall be analyzed for electrical conductivity, nitrate as nitrogen,
32 and chloride.

33 (7) pH, electrical conductivity, sodium, calcium, and magnesium shall be analyzed using a
34 saturated paste extract in accordance with the analytical methodology required by Subsection B of
35 20.6.2.3224 NMAC. Phosphorus shall be analyzed using the Olsen sodium bicarbonate method in
36 accordance with the analytical methodology required by Subsection B of 20.6.2.3224 NMAC. Nitrate as
37 nitrogen shall be analyzed by a 2 molar KCl extract in accordance with the analytical methodology required

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1 by Subsection B of 20.6.2.3224 NMAC. Chloride, organic matter, potassium, and sodium adsorption ratio
2 shall be analyzed in accordance with the analytical methodology required by Subsection B of 20.6.2.3224
3 NMAC.

4 (8) The permittee shall submit the analytical results and a map showing the fields and the
5 sampling locations within each field to the department in the monitoring report due by May 1.
6

7 **20.6.2.3226 ADDITIONAL MONITORING REQUIREMENTS FOR DAIRY FACILITIES**
8 **DISCHARGING TO AN EVAPORATIVE WASTEWATER DISPOSAL SYSTEM: Wastewater to**
9 **be Evaporated – Sampling and Reporting:** A permittee shall collect a composite wastewater sample on
10 a quarterly basis from each wastewater or combination wastewater/stormwater impoundment used for
11 disposal by evaporation. The composite sample from each impoundment shall consist of a minimum of six
12 sub-samples collected around the entire perimeter of each impoundment and thoroughly mixed. Samples
13 shall be analyzed for nitrate as nitrogen, total Kjeldahl nitrogen, chloride, sulfate and total dissolved solids
14 pursuant to Subsection B of 20.6.2.3224 NMAC. A permittee shall submit the analytical results to the
15 department in the quarterly monitoring reports.
16

17 **20.6.2.3227 CONTINGENCY REQUIREMENTS FOR ALL DAIRY FACILITIES:**

18 **A. Exceedance of Ground Water Standards – Any Monitoring Well:** If a ground water
19 sample and any subsequent sample collected from the same monitoring well intended to monitor a
20 contamination source indicate a water contaminant concentration that both exceeds one or more of the
21 ground water standards of Section 20.6.2.3103 NMAC and exceeds the concentration of such
22 contaminant(s) in a ground water sample collected from the upgradient monitoring well, the permittee shall
23 take the following actions.

24 (1) For a monitoring well associated with an impoundment: Within 90 days of the
25 subsequent sample analysis date, the permittee shall submit and initiate implementation of a corrective
26 action plan pursuant to Subsection B of this section.

27 (2) For a monitoring well not associated with an impoundment: Within 90 days of the
28 subsequent sample analysis date, the permittee may investigate potential sources of contamination that may
29 have caused a standard(s) to be exceeded and shall submit a corrective action plan to the department. The
30 corrective action plan shall describe the results of the investigation of potential sources of the exceedance,
31 describe any repairs made to address the cause of the exceedance, and propose source control measures and
32 a schedule for implementation through completion of source control measures. Within 30 days of
33 department approval, the permittee shall initiate implementation of the corrective action plan.

34 (3) If ground water monitoring shows that one or more standards of Section 20.6.2.3103
35 NMAC continue to be exceeded at least 180 days after the subsequent sample analysis date, the permittee
36 shall submit an abatement plan proposal pursuant to Section 20.6.2.4106 NMAC. Abatement shall be

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1 performed pursuant to Sections 20.6.2.4101, 20.6.2.4103, 20.6.2.4104, and 20.6.2.4106 through
2 20.6.2.4115 NMAC.

3 **B. Exceedance of Ground Water Standards – Impoundment Monitoring Well:** If the
4 constituent concentration in a ground water sample and in any subsequent ground water sample collected
5 from a monitoring well intended to monitor an impoundment(s) exceeds one or more of the ground water
6 standards of Section 20.6.2.3103 NMAC and exceeds the concentration of such constituent(s) in a ground
7 water sample collected from the upgradient monitoring well, then within 90 days of the subsequent sample
8 analysis date the permittee shall submit a corrective action plan proposing one or more of the following
9 measures.

10 (1) For impoundments with a primary liner composed of material other than that required by
11 Subsection D of 20.6.2.3217 NMAC, the corrective action plan shall include.

12 (a) A proposal for reconstruction and lining of an existing impoundment, or
13 construction and lining of a new impoundment. Reconstruction or new construction shall be completed
14 pursuant to Section 20.6.2.3217 NMAC within one year of the subsequent sample analysis date. In the
15 event a new impoundment is constructed, the existing impoundment shall be permanently closed pursuant
16 to Section 20.6.2.3230 NMAC.

17 (b) Construction plans and specifications for the impoundment shall be completed
18 pursuant to Section 20.6.2.3217 NMAC.

19 (2) For impoundments with a primary liner composed of material consistent with that
20 required by Subsection D of 20.6.2.3217 NMAC, the corrective action plan shall include the following.

21 (a) A proposal for the repair of the existing liner consistent with Section 20.6.2.3217
22 NMAC, if repair is practicable. Repairs shall be completed within 180 days of the subsequent sample
23 analysis date. If repair is not practicable, the corrective action plan shall propose to replace the liner
24 pursuant to Section 20.6.2.3217 NMAC or to construct a new lined impoundment pursuant to Section
25 20.6.2.3217 NMAC within one year of the subsequent sample analysis date. If a new impoundment is
26 constructed, the existing impoundment shall be closed pursuant to Section 20.6.2.3230 NMAC.

27 (b) Construction plans and specifications for the proposal shall be completed pursuant
28 to Section 20.6.2.3217 NMAC.

29 **C. Monitoring Well Replacement:** If information available to the department indicates
30 that a monitoring well(s) required by Section 20.6.2.3223 NMAC is not located hydrologically
31 downgradient of the contamination source it is intended monitor, is not completed pursuant to Section
32 20.6.2.3223 NMAC or contains insufficient water to effectively monitor ground water quality, a permittee
33 shall install a replacement monitoring well(s). The replacement monitoring well(s) shall be installed within
34 120 days of notification from the department and a survey of the replacement monitoring well(s) shall be
35 performed within 150 days of notification from the department. The replacement monitoring well(s) shall
36 be located, installed, completed, surveyed and sampled pursuant to Section 20.6.2.3223 NMAC. The
37 permittee shall develop a monitoring well completion report pursuant to Subsection J of 20.6.2.3223

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1 NMAC and submit it to the department within 180 days of notification from the department.

2 **D. Exceedances of Permitted Discharge Volume:** If the daily discharge volume reported
3 pursuant to Subsection C of 20.6.2.3224 NMAC exceeds the maximum daily discharge volume authorized
4 by the discharge permit by more than ten percent for any 30 daily measurements within any 90 consecutive
5 days, the permittee shall complete and submit within 60 days of the thirtieth exceedance: a corrective action
6 plan for reducing the discharge volume; or an application for a modified or renewed and modified
7 discharge permit pursuant to Section 20.6.2.3205 NMAC. Within 30 days of department approval, the
8 permittee shall initiate implementation of the corrective action plan.

9 **E. Insufficient Impoundment Capacity:** If a survey, capacity calculations, or settled
10 solids thickness measurements, indicate an existing impoundment is not capable of meeting the capacity
11 requirements required by Subsection D of 20.6.2.3217 NMAC, then within 90 days of the effective date of
12 the discharge permit the permittee shall submit a corrective action plan for department approval. The plan
13 may include, but is not limited to, proposals for constructing an additional impoundment, reducing the
14 maximum daily discharge volume, removing accumulated solids, changing wastewater or stormwater
15 management practices, or installing an advanced treatment system. The corrective action plan shall include
16 a schedule for implementation through completion of corrective actions. The corrective action plan
17 schedule shall propose completion not to exceed one year from the submittal date of the initial corrective
18 action plan. Within 30 days of department approval, the permittee shall initiate implementation of the
19 corrective action plan. Should the corrective action plan include removal of accumulated solids, solids
20 shall be removed from the impoundment in a manner that is protective of the impoundment liner. The plan
21 shall include the method of removal, and locations and methods for storage and disposal of the solids-
22 slurry. If the plan proposes land application of the solids-slurry, the plan must also include the analytical
23 results of total Kjeldahl nitrogen and chloride obtained from a representative sample of the solids-slurry to
24 be applied.

25 **F. Inability to Preserve Required Freeboard:** If a minimum of two feet of freeboard
26 cannot be preserved in the wastewater impoundment, the permittee shall submit a corrective action plan to
27 the department for approval. The corrective action plan shall be submitted within 30 days of the date of the
28 initial exceedance of the freeboard requirement. The plan may include, but is not limited to, proposals for
29 constructing an additional impoundment, reducing the maximum daily discharge volume, changing
30 wastewater management practices, or installing an advanced wastewater treatment system. The corrective
31 action plan shall include actions to be immediately implemented to regain and maintain a minimum of two
32 feet of freeboard until permanent corrective actions have been completed. The corrective action plan shall
33 include a schedule for implementation through completion of corrective actions. The corrective action plan
34 schedule shall propose completion not to exceed one year from the submittal date of the initial corrective
35 action plan. Within 30 days of department approval, the permittee shall initiate implementation of the
36 corrective action plan.

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1 **G. Impoundment – Structural Integrity Compromised:** Within 24 hours of discovery, a
2 permittee shall report to the department, any damage to the berms or the liner of an impoundment or any
3 condition that exists that may compromise the structural integrity of the impoundment. Within 15 days of
4 the reported discovery, the permittee shall submit to the department a corrective action plan describing any
5 actions taken or proposed to be taken to repair the damage or condition. Within 30 days of receipt, the
6 department shall respond to the proposed corrective action plan. Repairs to the impoundment liner or
7 berms shall be completed pursuant to Section 20.6.2.3217 NMAC. The corrective action plan shall include
8 a schedule for implementation through completion of corrective actions. The corrective action plan
9 schedule shall propose completion not to exceed one year from the submittal date of the initial corrective
10 action plan. The schedule of corrective actions shall be commensurate to the magnitude and scope of the
11 activities to be completed. Within 30 days of department approval, the permittee shall initiate
12 implementation of the corrective action plan.

13 **H. Impoundments Utilizing Primary and Secondary Liners - Primary Liner Leakage:**
14 Within 30 days of the date of discovering that the leakage rate of the leak detection system is increasing or
15 that the functioning automated pump system is unable to keep the interstitial space between the liners free
16 of fluids, the permittee shall submit a corrective action plan for department approval. The corrective action
17 plan shall include a schedule for implementation through completion of corrective actions. The corrective
18 action plan schedule shall propose completion not to exceed one year from the submittal date of the initial
19 corrective action plan. Within 30 days of department approval, the permittee shall initiate implementation
20 of the corrective action plan.

21 **I. Unauthorized Discharge - Reporting and Correction:** In the event of a spill or release
22 that is not authorized by the discharge permit, the permittee shall notify the department and take corrective
23 actions pursuant to Section 20.6.2.1203 NMAC. Wastewater or stormwater shall be contained and pumped
24 to a permitted sump, impoundment, or land application area pursuant to the dairy rules. Wastewater or
25 stormwater applied to the land application area shall conform to the requirements of Sections 20.6.2.3221
26 and 20.6.2.3225 NMAC. The permittee shall repair or replace failed components within 48 hours from the
27 time of failure or as soon as possible.

28
29 **20.6.2.3228 ADDITIONAL CONTINGENCY REQUIREMENTS FOR DAIRY FACILITIES**
30 **WITH A LAND APPLICATION AREA: Excessive Nitrogen Accumulation in Soil:** If soil sampling
31 conducted pursuant to Subsections K and L of 20.6.2.3225 NMAC indicates that excessive nitrogen
32 accumulation has occurred within a field(s) within the land application area, a permittee shall revise the
33 nutrient management plan (NMP) to address the removal of the excessive nitrogen from the soil. Revisions
34 to the NMP shall be made by a certified professional, pursuant to Subsection K of 20.6.2.3221 NMAC.
35 The NMP revisions to address excessive nitrogen accumulations within a field(s) shall be incorporated into
36 the subsequent annual update to the NMP and shall be submitted to the department pursuant to Subsection
37 K of 20.6.2.3221 NMAC.

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20.6.2.3229 ADDITIONAL CONTINGENCY REQUIREMENTS FOR DAIRY FACILITIES DISCHARGING TO AN EVAPORATIVE WASTEWATER DISPOSAL SYSTEM: Inability to Maintain Required Freeboard: If a combination wastewater/stormwater impoundment used for disposal by evaporation does not have free capacity below the two-foot freeboard level required by Subsection D of 20.6.2.3217 NMAC, then within seven days of the date of discovery of insufficient free capacity the permittee shall submit a corrective action plan for department approval. The plan shall include, but is not limited to, a request for temporary permission to discharge to allow immediate removal and disposal of combined wastewater and stormwater; a proposal for long-term corrective actions which may include constructing an additional impoundment; reducing the maximum daily discharge volume; changing wastewater or stormwater management practices; or installing an advanced treatment system. The corrective action plan shall include schedule for implementation to complete corrective actions within one year from the submittal date of the initial corrective action plan. Upon department approval, the permittee shall initiate implementation of the corrective action plan.

20.6.2.3230 CLOSURE REQUIREMENTS FOR ALL DAIRY FACILITIES:

A. Permanent Closure of Dairy Facility or Impoundments: The following closure actions shall be performed at dairy facilities:

(1) For permanent closure of a dairy facility:

(a) The department shall be notified no later than 30 days after wastewater discharge has permanently ceased at the dairy facility.

(b) Installation of all monitoring wells shall be completed pursuant to Section 20.6.2.3223 NMAC.

(c) All wastewater and combination wastewater/stormwater impoundments shall be emptied of wastewater and stormwater within six months of permanently ceasing wastewater discharge at the dairy facility. All stormwater and combination wastewater /stormwater impoundments shall be emptied of stormwater within six months of removing all livestock from the dairy facility. Wastewater and stormwater removed from impoundments shall be applied to the designated land application area, as authorized by a discharge permit. In the event that land application is not authorized by a discharge permit, a disposal plan shall be submitted for department approval and the plan implemented upon department approval.

(d) Manure solids and compost shall be removed from surface areas at the dairy facility and applied to the designated land application area, as authorized by a discharge permit, or transferred off-site for proper disposal within one year of removing all livestock from the facility.

(e) Complete removal of manure solids from the wastewater impoundment(s) shall be achieved within two years of permanently ceasing wastewater discharge. Complete removal of manure solids from the stormwater and combination wastewater/stormwater impoundment(s) shall be achieved

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1 within two years of removing all livestock from the dairy facility. Manure solids shall be applied to the
2 designated land application area, as authorized by a discharge permit. In the event that land application is
3 not authorized by a discharge permit, a disposal plan shall be submitted for department approval and the
4 plan implemented upon department approval.

5 (f) Impoundment liners shall be perforated or removed and the impoundments shall be
6 re-graded with clean fill to blend with surface topography to prevent ponding within two years of
7 permanently ceasing wastewater discharge and removing all livestock from the facility.

8 (2) For closure of existing impoundments upon replacement with new impoundments:

9 (a) Existing impoundments shall be emptied of wastewater and stormwater within six
10 months of completion of the new impoundments. Wastewater and stormwater removed from existing
11 impoundments shall be applied to the designated land application area, as authorized by a discharge permit.
12 In the event that land application is not authorized by a discharge permit, a disposal plan shall be submitted
13 for department approval and the plan implemented upon department approval.

14 (b) Complete removal of manure solids from existing impoundments shall be achieved
15 within two years of completion of the new impoundments. Manure solids shall be applied to the designated
16 land application area, as authorized by a discharge permit. In the event that land application is not
17 authorized by a discharge permit, a disposal plan shall be submitted for department approval and the plan
18 implemented upon department approval.

19 (c) Existing impoundment liners shall be perforated or removed and the existing
20 impoundments shall be re-graded with clean fill to blend with surface topography to prevent ponding
21 within two years of completion of the new impoundments.

22 **B. Post-Closure Ground Water Sampling and Reporting:** Following completion and
23 confirmation by the department of the requirements of Subsection A of this section, ground water
24 monitoring shall continue pursuant to Section 20.6.2.3223 NMAC until a minimum of eight consecutive
25 ground water sampling events confirm that the standards of Section 20.6.2.3103 NMAC are not exceeded
26 and the total nitrogen concentration in ground water is less than or equal to 10 milligrams per liter. If
27 monitoring results show that one or more of the standards of Section 20.6.2.3103 NMAC is exceeded or the
28 total nitrogen concentration in ground water is greater than 10 milligrams per liter, the permittee shall
29 implement contingency requirements pursuant to Section 20.6.2.3227 NMAC. Upon notification from the
30 department that post-closure ground water monitoring may cease, the permittee shall abandon all
31 monitoring wells and submit a report to the department pursuant to Subsection C of this section.

32 **C. Monitoring Well Abandonment:** Upon notification from the department, the permittee
33 shall abandon monitoring wells pursuant to Part 19.27.4 NMAC and the following requirements.

34 (1) The well casing shall be removed and bentonite-cement grout, neat cement grout, or
35 bentonite grout, prepared as specified in Section 20.6.2.3223 NMAC, shall be placed from the bottom of
36 the borehole to the ground surface using a tremmie pipe.

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1 (2) If the casing cannot be removed, bentonite-cement grout, neat cement grout, or bentonite
2 grout shall be emplaced in the well using a tremmie pipe from the bottom of the well to the ground surface.

3 (3) A well abandonment report shall be prepared by the permittee and shall provide
4 information equivalent to the plugging record requirements of Part 19.27.4 NMAC. The well abandonment
5 report shall be submitted to the department within 60 days of completion of well plugging activities.

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7 **20.6.2.3231 ADDITIONAL CLOSURE REQUIREMENTS FOR DAIRY FACILITIES WITH**
8 **A LAND APPLICATION AREA: [RESERVED]**

9
10 **20.6.2.3232 ADDITIONAL CLOSURE REQUIREMENTS FOR DAIRY FACILITIES**
11 **DISCHARGING TO AN EVAPORATIVE WASTEWATER DISPOSAL SYSTEM: [RESERVED]**

12
13 **20.6.2.3233 RECORD RETENTION REQUIREMENTS FOR ALL DAIRY FACILITIES:**

14 A. A permittee shall retain a written record at the dairy facility of all data and information
15 related to field measurements, sampling, and analysis conducted pursuant to this part and the discharge
16 permit. The following information shall be recorded and shall be made available to the department upon
17 request:

- 18 (1) the dates, exact place and times of sampling or field measurements;
- 19 (2) the name and job title of the individuals who performed each sample collection or field
20 measurement;
- 21 (3) the date of the analysis of each sample;
- 22 (4) the name and address of the laboratory and the name and job title of the person that
23 performed the analysis of each sample;
- 24 (5) the analytical technique or method used to analyze each sample or take each field
25 measurement;
- 26 (6) the results of each analysis or field measurement, including raw data;
- 27 (7) the results of any split, spiked, duplicate or repeat sample; and
- 28 (8) a description of the quality assurance and quality control procedures used.

29 B. A permittee shall retain a written record at the dairy facility of any spills, seeps, or leaks
30 of effluent, and of leachate or process fluids not authorized by the discharge permit. Records shall be made
31 available to the department upon request.

32 C. A permittee shall retain a written record at the dairy facility of the operation,
33 maintenance, and repair of all features/equipment used to treat, store or dispose of wastewater, measure
34 flow rates, monitor water quality, or collect other data. Records shall include repair, replacement or
35 calibration of any monitoring equipment and repair or replacement of any equipment used in the waste or
36 wastewater treatment and disposal system. Records shall be made available to the department upon
37 request.

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1 D. A permittee shall retain records of all monitoring information at the dairy facility,
2 including all calibration and maintenance records, copies of all reports, and the application for the
3 discharge permit. Records shall be retained for a period of at least 10 years from the date of the sample
4 collection, measurement, report or application.

5
6 **20.6.2.3234 TRANSFER OF DAIRY DISCHARGE PERMITS:**

7 A. Transfer of discharge permits for dairy facilities shall be made pursuant to 20.6.2.3111
8 NMAC and this section.

9 B. The transferee(s) shall notify the department, in writing, of the date of transfer of
10 ownership and provide contact information for the new owner(s) pursuant to Subsection C of 20.6.2.3207
11 NMAC. Notification shall be submitted to the department of the transfer within 30 days of the ownership
12 transfer date.

13
14 **20.6.2.3235 CONTINUING EFFECT OF PRIOR ACTIONS DURING TRANSITION:**

15 A. A discharge permit issued pursuant to Section 20.6.2.3109 NMAC that has not expired on
16 or before the effective date of the dairy rules shall remain in effect and enforceable pursuant to the terms
17 and conditions of the discharge permit.

18 B. An application for a new discharge permit or a application for a renewed or modified
19 discharge permit submitted to the department before the effective date of the dairy rules, shall be processed
20 by the department if the application has been deemed administratively complete and the requirements of
21 Subsection D of 20.6.2.3108 NMAC have been satisfied. The applicant shall submit a permit fee payment
22 equal to one-half of the applicable permit fee from Table 1 of 20.6.2.3114 NMAC within 90 days of the
23 effective date of the dairy rules.

24 C. If a discharge permit for a dairy facility is expired on the effective date of the dairy rules,
25 the permittee, owner of record of the dairy facility or the holder of the expired discharge permit:

26 (1) shall within 90 days of the effective date of the dairy rules submit to the department an
27 application for a discharge permit renewal, renewal and modification or closure pursuant to 20.6.2.3205
28 NMAC and a filing fee and permit fee payment pursuant to 20.6.2.3204 NMAC; or

29 (2) if the dairy facility has not been constructed or operated, the permittee, the owner of
30 record of the dairy facility or the holder of the expired discharge permit may submit a statement to the
31 department instead of an application for renewal certifying that the facility has not been constructed or
32 operated and that no discharges have occurred. Upon the department's verification of the certification, the
33 department shall retire the discharge permit number from use.

34 D. The department shall process submissions meeting the requirements of Subsections B and
35 C of this section according to the following schedule and subject to the public notice requirements of
36 Section 20.6.2.3108 NMAC. If the department issues a discharge permit, the permittee shall have ninety
37 days from the effective date of the discharge permit to submit all the necessary information to comply with

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1 Sections 20.6.2.3205 through 20.6.2.3208 NMAC.

2 (1) For a new discharge permit application or for a renewal application for a discharge
3 permit whose term ended on or before December 31, 2005, the department shall propose approval of a
4 discharge permit or disapproval of an application within 90 days of the effective date of the dairy rules.
5 The department shall notify the applicant of the proposed action by certified mail.

6 (2) For a renewal application for a discharge permit whose term ended in calendar year
7 2006, the department shall propose approval of a discharge permit or disapproval of an application within
8 180 days of the effective date of the dairy rules. The department shall notify the applicant of the proposed
9 action by certified mail.

10 (3) For a renewal application for a discharge permit whose terms ended in calendar year
11 2007, the department shall propose approval of a discharge permit or disapproval of an application within
12 270 days of the effective date of the dairy rules. The department shall notify the applicant of the proposed
13 action by certified mail.

14 (4) For a renewal application for a discharge permit whose terms ended in calendar year
15 2008, the department shall propose approval of a discharge permit or disapproval of an application within
16 360 days of the effective date of the dairy rules. The department shall notify the applicant of the proposed
17 action by certified mail.

18 (5) For a renewal application for a discharge permits whose term ended in calendar year
19 2009, the department shall propose approval of a discharge permit or disapproval of an application within
20 450 days of the effective date of the dairy rules. The department shall notify the applicant of the proposed
21 action by certified mail.

22 (6) For a renewal application for a discharge permit whose term ended on or after January 1,
23 2010 but before the effective date of this section, the department shall propose approval of a discharge
24 permit or disapproval of an application within 540 days of the effective date of the dairy rules. The
25 department shall notify the applicant of the proposed action by certified mail.

26 E. Any dairy facility discharging, capable of recommencing discharging, or that has ceased
27 discharging within the term of its most recent discharge permit shall continue all monitoring and submittal
28 of monitoring reports as prescribed in the most recent discharge permit until the department issues a
29 renewed or renewed and modified discharge permit.

30 F. Any discharge permit proposed for approval (i.e., draft discharge permit) by the
31 department pursuant to Section 20.6.2.3109 NMAC, but not made final before the effective date of the
32 dairy rules, is withdrawn. Any permit fee submitted before the withdrawal of such a draft discharge permit
33 shall be applied towards the permit fee for the permit issued pursuant to the dairy rules.