NMP Technical Review
New Mexico General Permit No. NMG010000

Facility Name: Big Sky/Desert Land Dairy
17800 South Stern Street
Mesquite, New Mexico 88048

Permit No.: NMG010004

Type (ex: dairy, non-dairy cattle, etc): Non-Dairy Cattle (Large CAFO)

County: Dona Ana

If located in Bernalillo, Chavez, Eddy, Sandoval, San Juan, or Valencia county, is EAP and metals testing included in NMP in accordance with Part III.D.8? N/A

Previously permitted: Yes

Noteworthy enforcement action: No
If no, previous permit no.: NMG010004

Receiving stream: Lower Rio Grande Watershed Basin - Hydrologic Unit Code No. 13030102

Impaired waterbody: No

If so, for what pollutant(s): N/A

EPA approved or established TMDL: No

Antidegradation: No
Stream listed as Tier 2/2.5: No
Stream listed as Tier 3: No

NMP developed by certified specialist: Yes

NMP elements (other than land application and adequate storage) technically complete: Yes

Employee Training: Employees responsible for permit compliance activities will be trained twice yearly. Training topics may include land application, facility operation and maintenance, housekeeping, materials management procedures, record keeping, and spill response and clean up. Different levels of personnel may receive training for different topics. Employees new to permit compliance activities will be trained prior to beginning any compliance activity. Training Sessions will be held annually the first week of March. Dates, topics, and personnel present will be recorded on the employee training log and kept in the NMP.

Additional comments: No

NOI/NMP Administrative Review Check List
New Mexico General Permit No. NMG010000

Facility Name: Big Sky/Desertland Dairy
Permit Number: NMG010004/NMG010008

NOI (Form 2B) administratively complete: Yes
NMP included: Yes
NMP administratively complete: Yes

<table>
<tr><th>FEDERAL REGULATIONS</th><th>LOCATION IN NMP / COMMENTS</th></tr>
<tr><td>40 CFR Part 122.42(e)(1)(i): Ensure adequate storage of manure, litter, and process wastewater</td><td>
<table>
<tr><th>Storage Structure</th><th>Type of Storage</th><th>Liner Material</th><th>Gallons</th><th># of Days</th></tr>
<tr><td>Wastewater lagoon South</td><td>Wastewater</td><td>HDPE</td><td>4,167,800</td><td>60+</td></tr>
<tr><td>Wastewater lagoon North</td><td>Wastewater</td><td>HDPE</td><td>642,100</td><td>NIA</td></tr>
<tr><td>Big Sky Runoff</td><td>Storm water</td><td>HDPE</td><td>2,696,670</td><td>NIA</td></tr>
<tr><td>Feed lot Runoff</td><td>Storm water</td><td>HDPE</td><td>1,658,322</td><td>NIA</td></tr>
<tr><td>Desertland North Calf Runoff</td><td>Storm water</td><td>HDPE</td><td>1,387,908</td><td>NIA</td></tr>
<tr><td>Desertland South Combination Wastewater/Runoff</td><td>Wastewater/Storm water</td><td>HDPE</td><td>2,469,564</td><td>9+</td></tr>
</table>
</td></tr>
<tr><td>40 CFR Part 122.42(e)(1)(ii): Mortality management.</td><td>All animals are hauled off daily to a renderer. Name and address of the renderer is recorded in the CNMP. Compost procedures are attached. Composting of dead animals will be an alternative method used if the renderer fails to pick up the dead animals. Compost will be hauled off to a 3rd party. Tonages and 3rd party name and address will be recorded in the CNMP in the records section. Mortality composting procedures are included in the NMP.</td></tr>
<tr><td>40 CFR Part 122.42(e)(1)(iii): clean water diversion.</td><td>There is a berm on part of the east side of the dairy to prevent run-on into the production area. Water is diverted from the production area to the arroyo located between Big Sky Dairy and Big Sky Feedlot. The shade on the south side of Big Sky Dairy has a gutter and storm water is piped to the arroyo. The entire site is used in the run-off calculations for sizing the runoff ponds.</td></tr>
<tr><td>40 CFR Part 122.42(e)(1)(iv): Prevent direct contact of animals with water of US.</td><td>Animals do not have access to waters of the US. All animals are confined in a fenced open lot system. All lagoons are fenced.</td></tr>
<tr><td>40 CFR Part 122.42(e)(1)(v): Chemical handling.</td><td>Chemicals are stored in the proper containers. Cleaning agents used in the wash up are stored in the milk barn in totes or drums. Iodine is stored in a bulk tank. Diesel fuel is stored in tanks. The large 15,000-gallon tank at Big Sky has a concrete containment structure around the tank to contain the diesel if the tank fails. Engine oil is stored inside the shop area in 55 gallon drums. All used oil is hauled off by Nun Oil Company. Bags of absorbent material is kept on site.

The following procedures are used if a spill occurs:
I. Spill extent will be assessed.
2. Call for help if needed.</td></tr>
</table>

FEDERAL REGULATIONS	LOCATION IN NMP / COMMENTS
	3. Use a skid loader or tractor with blade to contain or divert spill if possible. 4. Complete the cleanup and repair the necessary components. Emergency contacts and procedures are described in the Emergency Action Plan.
40 CFR Part 122.42.(e)(1)(vi): conservation practices, including buffers to control runoff	Sprinkler & Pivot Fields Current crops are barley in the winter and sudan in the summer. Fields are disked before planting. Flood Fields are laser leveled before planting. Set sprinklers utilize rain bird sprinkler for uniform application. Field F-G (new field) Land Application Setbacks are utilized through berins around all land application fields. Fields are located next to the drainage. ditch and Anthony Lateral. The driveway and ditch is a minimum of one foot above the field levels; There is a 20 feet setback, including the driveway, from the drainage ditch to ensure no water is able to enter the drain. NRCS surveyed the field elevations to the drain and lateral. Attached is a letter from the District Conservationist. The three wells located east of the animal confinement area of Sunset Feedlot are 68 feet from Field G; According to NRCS survey elevations, there is 4.45-foot elevation from the wells to the road on one side of the Anthony Lateral and 3.8-foot elevation from the road to Field G on the other side of the Anthony Lateral.
40 CFR Part 412.4(c)(5): Setback requirements for down-gradient surface waters, open tile line intake structure, sinkhole, agricultural well head, or other conduit to surface water: 100 ft setback, 35 ft vegetative buffer, or compliance alternative.	Land Application Setbacks are utilized through berms around all land application fields. The dairy's land application fields are about % mile from the nearest drainage ditch. The agricultural well head is located over 100 feet from the land application area. Pivot sprinklers are set for uniform application.
40 CFR Part 122.42(e)(1)(vii): protocols for testing of manure, soil, litter, or process wastewaters.	Manure samples are taken annually. The first dry layer of manure is scraped away before the sample is taken. A minimum of ten samples are taken throughout the pens and combined for a composite sample. Samples are sent to a laboratory for analysis. Litter is not used at this facility. Process wastewater samples are taken quarterly. A contracted company takes a sample from the storage lagoon for testing. Nitro gen and Phosphorus are. tested by a contracted laboratory. Irrigation water samples are taken annually. Samples are sent to a laboratory for analysis of Nitrate-N. Soil samples are taken annually. A soil probe is used to take 15 core samples from 0-12" in various locations on each field and combined to make a composite sample. Sample locations are marked on a map and recorded in the CNMP. Samples are taken to New Mexico State University Soil, Water, and Agricultural Testing Facility.

<table>
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<tr><td>40 CFR Part 412.4(c)(2): NMP must incorporate determination of application rates</td><td>The Narrative Method and the 590 Jobsheets are used to comply with this requirement.</td></tr>
<tr><td>40 CFR Part 122.42(e)(1)(viii): protocols for land application.</td><td>Narrative method is utilized in the NMP.

<table>
<tr><td>Field Name</td><td>Acres</td><td>Method of Land Application</td></tr>
<tr><td>Pivot Field</td><td>57</td><td>Process Wastewater</td></tr>
<tr><td>Sprinkler Field</td><td>103</td><td>Process Wastewater</td></tr>
<tr><td>Field F-G</td><td>39.9</td><td>Process Wastewater</td></tr>
<tr><td>Total</td><td>199.9</td><td></td></tr>
</table>

All fields are N based application. Wastewater is applied all year. All wastewater generated by this facility is applied to 199.9 acres of cropland. Solid manure will be applied to cropland as needed. Solid manure is spread with a manure spreader wagon. The spreader is calibrated before application. Solid manure is also transferred to 3rd party farmers.

Pivot & Sprinkler Fields; Land Application equipment is inspected before each application. On the Pivot Field, the pivot sprinklers are regulated per their position on the pivot. The land has a slope to it from east to west. The pivot is set up to apply at 20% on the east side and 10% on the west side to prevent runoff. The sprinklers on the Sprinkler Field are checked before application to ensure even coverage and eliminate build up. Well water is mixed with wastewater at a 10: 1 ratio.

Field F-G (new field); Land Application equipment is inspected before each application. Well water is mixed with wastewater at a 10: 1 ratio. In the summer, well water or Elephant Butte Irrigation District water is mixed with process wastewater. Fields are laser leveled to ensure even distribution of water.</td></tr>
<tr><td>40 CFR Part 412.4(c)(4): NMP must incorporate inspection of land application for leaks</td><td>Keep track of your inspections each week in the table. Provide the following information: The date of the inspection. The initials of the inspector. For open liquid waste storage structures, record the level indicated on the depth marker. Use the "Notes" column to describe problems, if you find any, and how they might be fixed. Fill in the "date corrected" column with the date when you correct the problem

The ponds shall be inspected (It least "annually and after unusual storm events. The embankments will be inspected for leaks, slope failures, erosion, and excessive settlement. Excavated slopes will be inspected for slope failures and erosion. Repairs shall be made promptly. Weeds should be controlled on the banks of the ponds because the residue (dry parts of Kochia and Russian thistle) will blow into the ponds and cause maintenance problems.</td></tr>
<tr><td>40 CFR Part 122.42(e)(1)(ix): record keeping.</td><td>The records that will be kept in the CNMP are referenced in this facilities management plan and examples of the records are included. The record forms are presented as examples but may change depending on this facility's needs.</td></tr>
<tr><td>Legible site map: of the production area (including, at a minimum, the animal</td><td>Facility Maps
Topographic Map
Soils Map and Soil Description</td></tr>
</table>

FEDERAL REGULATIONS	LOCATION IN NMP / COMMENTS
confinement area, the manure storage area, the raw materials storage area, and the waste containment area), and the land application area. The map must also include flow direction, an outline of drainage areas to the process wastewater retention or control structures, structural controls, and surface water bodies.	Contour Map
Signature. The NMP shall be signed by the owner/operator or other signatory authority in accordance with Part VI.E (Signatory Requirements) of this permit.	Owner/Operator Signature included