

STATE OF NEW MEXICO  
BEFORE THE WATER QUALITY CONTROL COMMISSION



IN THE MATTER OF:  
APPEAL PETITION IN  
THE NOTICE OF DEFICIENCY OF STAGE 1  
ABATEMENT PLAN

WQCC 10-06(A)

DONA ANA DAIRIES,  
Petitioners.

**ORDER AND STATEMENT OF REASONS**

THIS MATTER comes before the New Mexico Water Quality Control Commission (“Commission”) upon a petition (“petition”) filed by twelve dairies collectively known as “Dona Ana Dairies” (“DAD”) appealing the New Mexico Environment Department’s (“NMED”) Notice of Deficiency (“NOD”) of the Stage 1 Abatement Plan issued to DAD on March 17, 2010. The petition was filed pursuant to 20.1.3.200 NMAC.

A public hearing was held in Santa Fe, New Mexico on October 18-22, and November 9, 29, 2010, before hearing Officer Felicia Orth, with many Commissioners present during the hearing. On November 29 and 30, 2010, the Commission deliberated and on November 30, 2010, the Commission voted to uphold the NOD in part, as set forth below in relevant part, for the reasons that follow.

**I. ORDER AND STATEMENT OF REASONS**

1. NMED’s March 17, 2010 NOD letter did not comply with the 60-day requirement under 20.6.2.4109(A) NMAC.

2. The responsible person did not take advantage of dispute resolution pursuant to 20.6.2.4113 NMAC.
3. Pursuant to 20.6.2.4113 NMAC, any decision reached through the dispute resolution process is appealable to the commission.

**A. GENERAL DEFICIENCIES**

1. By a vote of 7 for and 3 against, the commission hereby upholds the March 17, 2010 general deficiency number 1, which states,

“A more detailed site history including the nature of past discharge areas, historic, wastewater/storm water lagoon locations not previously identified, low spots on corrals where water and leachate may have accumulated, animal water troughs where leakages/spills can cause leachate, unlined sumps, manure storage areas (wet and dry), green silage storage, and leaks from wastewater conveyance systems was not provided. Please submit this information.”

In support of its order regarding general deficiency number 1, the commission makes the following statement of reasons:

- a. The regulation governing Stage 1 Abatement plans at 20.6.2.4106 C NMAC, states that the purpose of Stage 1 of the abatement plan shall be to design and conduct a site investigation that will adequately define site conditions, and provide the data necessary to select and design an effective abatement option.
  - b. The intent of deficiency number 1 is not to identify each area of accidental discharge as a discharge site requiring a permit.
  - c. The deficiency number 1 is a request that DAD summarize the available data as well as evaluate what can be learned from that data.
2. By a vote of 9 for and 1 against, the commission hereby upholds the March 17, 2010 general deficiency number 2, which states,

“Monitoring well construction details and an evaluation of the integrity of each existing monitoring well to determine well integrity and screen placement was not provided. A determination of whether existing monitoring wells are suitable for ground water data collection is required with the exception of the DAD monitoring wells recently installed and the ten monitoring wells at Del Oro dairy that are properly constructed. Please submit this information.”

In support of its order regarding general deficiency number 2, the commission makes the following statement of reasons:

- a. General deficiency number 2 properly addresses the need for evaluation of the wells that will be used for monitoring regardless of their designation as “discharge wells” or “abatement wells”.
- b. It is reasonable for NMED to request a compilation or tabulation that evaluates the suitability of the wells that are being proposed for the abatement plan. 20.6.2.4106 C NMAC
- c. Some wells that are appropriate for monitoring discharge may also serve the dual purpose of monitoring abatement.
- d. The evaluation of discharge wells submitted as part of the discharge plan did not sufficiently address the issue of whether the same wells are appropriate for abatement monitoring.
- e. DAD's submission of Exhibit 75 included much of the information requested in general deficiency number 2, however, that information still lacked evaluation.
- f. In the course of presentation of evidence, the parties have come close to agreement on the adequacy of information presented at hearing to meet general deficiency number 2.

3. By a vote of 10 for and none against, the commission hereby sustains petitioners'

objection to the March 17, 2010 general deficiency number 3, which states,

"An evaluation of the contaminant transport and possible capture zones of the dairies' production wells, and a description of subsurface lithology to depth that may affect contaminant transport was not provided. Please submit this information."

In support of its order regarding general deficiency number 3, the commission makes the following statement of reasons:

- a. General deficiency number 3 was particularly vague and poorly worded, making it unclear what was being asked.
- b. General deficiency number 3 is a request that seeks information that may be useful in a future Stage 2 abatement; however, it does not address a Stage 1 issue.

4. By a vote of 9 for and 2 against, the commission hereby upholds the March 17, 2010 general deficiency number 4, which states,

"Details of the known vertical and horizontal extents and magnitude of vadose zone contamination was not provided. Please submit this information."

In support of its order regarding general deficiency number 4, the commission makes the following statement of reasons:

- a. The intent of general deficiency number 4 is to request that DAD provide an evaluation of "known" information on the vertical and horizontal extent and magnitude of vadose zone contamination pursuant to 20.6.2.4106C(2)(a) and this is a reasonable request.
- b. The intent of general deficiency number 4 is not to request that DAD perform extensive additional testing.

- c. DAD acknowledged in its appeal petition that it has some existing soil sampling data from the vadose zone but did not submit this information because it believed it to be unnecessary.

5. By a vote of 6 for and 2 against, the commission hereby upholds the March 17, 2010 general deficiency number 5, which states,

“Ground water samples from the 10 new monitoring wells, 3 deep monitoring wells, irrigation wells, and dairy supply wells were not analyzed for sulfate ion concentration, which is a WQCC regulated water contaminant and also a potential water contaminant derived from animal waste.”

In support of its order regarding general deficiency number 5, the commission makes the following statement of reasons:

- a. General deficiency number 5 is a reasonable request in light of the fact that the evidence demonstrated that there is sulfate contamination that is above standards. 20.6.2.3103 NMAC and 20.6.2.4106 C NMAC.
- b. The requested information can be provided relatively inexpensively.
- c. There are multiple potential sources for the sulfate contamination and it is not clear that DAD is the source of the sulfate.

## **B. NORTHERN PORTION DEFICIENCIES**

1. By a vote of 10 for and none against, the commission hereby upholds the March 17, 2010 northern portion deficiency number 1, which states,

“The site investigation report does not explain why concentrations in well 177-03 decreased significantly after 2004. The potentiometric surface map [figure 7] indicates a flow direction that is inconsistent with the major ion chemistry (TDS) in well 177-03 from the adjacent wells. The modified Stage 1 Abatement Plan proposal shall explain why concentrations have decreased substantially in this well, and why concentration gradients are inconsistent with ground water flow direction in this area. An additional monitoring well may need to be installed in this area to provide the data necessary to define these concerns.”

In support of its order regarding general deficiency number 5, the commission makes the following statement of reasons:

- a. The site investigation report presented does not explain why concentrations in well 177-03 decreased significantly after 2004.
  - b. Northern Portion deficiency number 1 is a reasonable request because there are potentially multiple other reasons for the decrease in concentration and it is appropriate that NMED be provided with an assessment of the data regarding the decrease. 20.6.2.4106 C NMAC.
  - c. DAD indicated a willingness to discuss creation of such an assessment.
2. By a vote of 10 for and none against, the commission hereby upholds the March 17, 2010 northern portion deficiency number 2, which states,

“The site investigation report’s Figure 11 depicting analytical results relies on well 177-07 that has not been sampled since 2003 due to apparent collapse. The report does not include replacement of this collapsed well. The modified Stage 1 Abatement Plan proposal shall include plans to replace this well in the same location per the terms of Discharge Plan DP-177 or a location determined to be similarly downgradient of the well cluster 177-02, 177-03 and 177-04.”

In support of its order regarding northern portion deficiency number 2, the commission makes the following statement of reasons:

- a. Northern portion deficiency number 2 is a reasonable request. 20.6.2.4106 C NMAC.
- b. DAD conceded the need for replacement of well 177-07. Appeal Petition attachment 3, p. 4.
- c. The evidence presented demonstrated that this deficiency is being addressed by DAD although that activity is not yet complete.

d. The substance of northern portion deficiency number 2 is upheld, however, the commission objects to the mandatory language ordering a specific approach. New Mexico Administrative Code section 20.6.2.4106 is a performance based rule, not a prescriptive rule, therefore, NMED can approve or deny a proposed abatement plan, but may not affirmatively dictate specific methodologies.

3. By a vote of 10 for and none against, the commission hereby upholds part and sustains the objection in part to the March 17, 2010 northern portion deficiency number 3, which states,

“The site investigation report did not include a recommendation to fully define the vertical and horizontal extent and magnitude of the ground water contamination in the Northern Portion of the study area. Also, the report acknowledges the failure of the HydraSleeve technology to determine vertical extent and magnitude of ground water contamination but does not propose the installation of additional monitoring wells to make this determination. The modified Stage 1 Abatement Plan proposal shall include, at a minimum, plans to install additional monitoring wells to fully define the nitrate, sulfate, chloride, and TDS vertical and horizontal extent and magnitude of ground water contamination in the following areas:

- a. In vertical definition data gaps that exist throughout the axis of the contaminant plumes.
- b. In horizontal definition data gaps located south of 177-02, west and north of 177-07, along the southern property, and east and south of 624-07.”

In support of its order regarding northern portion deficiency number 3, the commission makes the following statement of reasons:

- a. Northern portion deficiency number 3 reasonably requires DAD to more fully define the extent of the ground water contamination in the northern portion.  
20.6.2.4106 C NMAC
- b. Additional information is necessary for adequate assessment to support development of an abatement plan.

- c. The evidence presented demonstrated that this deficiency is being addressed by DAD although that activity is not yet complete. DAD exhibits 53, 66, 83, NMED exhibits 51, 60, 69.
- d. The report submitted by DAD did not resolve the issue of the vertical extent and magnitude of the ground water contamination in this area. TX 1151-1198, NMED exhibits 38-44, 55, 56, 58, 59, 60, 61, DAD exhibit 53.
- e. DAD conceded the need for additional vertical wells. Appeal Petition Attachment 3, p. 5.
- f. DAD conceded the need to close a data gap in one horizontal delineation. Appeal Petition Attachment 3, p. 5.
- g. The substance of northern portion deficiency number 3 is upheld, however, the commission objects to the mandatory language ordering a specific approach. New Mexico Administrative Code section 20.6.2.4106 is a performance based rule, not a prescriptive rule, therefore, NMED can approve or deny a proposed abatement plan, but may not affirmatively dictate specific methodologies.

### **C. CENTRAL PORTION DEFICIENCIES**

1. By a vote of 9 for and one against, the commission hereby upholds the March 17, 2010 central portion deficiency number 1, which states,

“The site investigation report did not include a recommendation to fully define the vertical and horizontal extent and magnitude of the groundwater contamination in the Central Portion of the study area. Only one vertical monitoring well was proposed at Sunset Dairy, which does not adequately meet this requirement. The modified Stage 1 Abatement plan proposal shall include plans to install additional monitoring wells to fully define the nitrate, sulfate, chloride, and TDS vertical and horizontal extent and magnitude of groundwater contamination in the following areas, at a minimum:



- a. In vertical definition data gaps that exist near 257-01 and 833-08 due to the presence of two nitrate plumes in these areas.
- b. In horizontal definition data gaps located north of DAD-03, north of Buena Vista 2 Dairy, east of 833-06, southeast of 833-07, southwest of 257-03, west of 257-03, west of 833-02 and west of DAD-04.”

In support of its order regarding central portion deficiency number 1, the commission makes the following statement of reasons:

- a. The substance of central portion deficiency number 1 is upheld, however, the commission objects to the mandatory language ordering a specific approach. New Mexico Administrative Code section 20.6.2.4106 is a performance based rule, not a prescriptive rule, therefore, NMED can approve or deny a proposed abatement plan, but may not affirmatively dictate specific methodologies. However, the objection is not sustained.

- b. DAD conceded that additional vertical wells are needed and proposed locations.

- c. DAD proposed one well per dairy and proposed locations in exhibit 65 a.

- d. NMED acknowledged that with additional information, it could compromise on the number and location of wells needed.

- e. Even if the parties come to agreement on the number of wells, a more detailed examination could justify additional wells beyond such agreement.

2. By a vote of 9 for and 1 against, the commission hereby upholds the March 17, 2010 central portion deficiency number 2, which states,

“Monitor well 257-03 must be re-sampled since the lab data was suspect. Please submit a resampling plan for this well.”

In support of its order regarding central portion deficiency number 2, the commission makes the following statement of reasons:

- a. Central portion deficiency number 2 is a reasonable request. 20.6.2.4106.C

NMAC.

- b. DAD resampled this well prior to issuance of the NOD, however, NMED did not receive evidence of the resampling prior to issuance of the NOD.

#### **D. SOUTHERN PORTION DEFICIENCIES**

1. By a vote of 5 for and 4 against, the commission hereby upholds the March 17, 2010 southern portion deficiency number 1, which states

“The report shows a perched and deep aquifer, but does not provide any proposal to better define the two aquifers’ geology and hydrogeology. The existing monitoring wells by the evaporative lagoon are completed within the upper aquifer. The modified Stage 1 Abatement Plan shall propose the installation of additional soil borings and monitoring wells on-site to define the two aquifers’ geology and hydrogeology.”

In support of its order regarding southern portion deficiency number 1, the commission makes the following statement of reasons:

- a. The two aquifers’ geology and hydrogeology need to be better defined by some reasonable means. NMED exhibits 72-75, 77, and 78.
- b. DAD proposed the installation of additional wells to address the issue raised in this deficiency and this may provide the information that NMED seeks.
- c. The substance of southern portion deficiency number 1 is upheld, however, the commission objects to the mandatory language ordering a specific approach. New Mexico Administrative Code section 20.6.2.4106 is a performance based rule, not a prescriptive rule, therefore, NMED can approve or deny a proposed abatement plan, but may not affirmatively dictate specific methodologies.

2. By a vote of six for and four against, the commission hereby

upholds the March 17, 2010 southern portion deficiency number 2,

which states,

“The report recommends, but does not propose, further delineation of the aquifer above the clay layer in the vicinity of the closed wastewater lagoon where currently only the perched aquifer is monitored by wells 692-01, 692-02, and 692-04. The modified Stage 1 Abatement Plan shall propose further delineation through the installation of monitoring wells as recommended and also propose a monitoring well to determine if dairy contaminants from the former lagoon source migrated to the aquifer below the clay layer.”

In support of its order regarding southern portion deficiency number 2, the commission makes the following statement of reasons:

- a. The substance of northern portion deficiency number 2 is upheld, however, the commission objects to the mandatory language ordering a specific approach. New Mexico Administrative Code section 20.6.2.4106 is a performance based rule, not a prescriptive rule, therefore, NMED can approve or deny a proposed abatement plan, but may not affirmatively dictate specific methodologies.
- b. DAD proposed nesting wells in specific places.
- c. Additional information is necessary for adequate assessment to support development of an abatement plan.
- d. The two aquifers' geology and hydrogeology need to be better defined by some reasonable means.
- e. DAD proposed the installation of additional wells to address the issue raised in this deficiency and this may provide the information that NMED seeks.

## II. ORDER

It is therefore ordered that the Appeal is denied in part and granted in part. The Commission directs the parties to proceed with compliance with the upheld and sustained portions of the March 17, 2010 NMED NOD.



Carlos Romero, Acting Chair  
On behalf of the Commission