TITLE 20 ENVIRONMENTAL PROTECTION

CHAPTER 6 WATER QUALITY

PART 8 GROUND AND SURFACE WATER PROTECTION –

SUPPLEMENTAL REQUIREMENTS FOR WATER REUSE

- **20.6.8.1 ISSUING AGENCY:** Water Quality Control Commission. [20.6.8.1 NMAC N, mm-dd-yy]
- **20.6.8.2 SCOPE:** All persons subject to regulation implemented through the department pursuant to the Water Quality Act, Sections 74-6-1 et seq, NMSA 1978 and specifically to persons intending to reuse wastewater and their operations. [20.6.8.2 NMAC N, mm-dd-yy]
- 20.6.8.3 STATUTORY AUTHORITY: Standards and regulations are adopted by the commission under the authority of the Water Quality Act, Sections 74-6-1 through 74-6-17 NMSA 1978 and the Produced Water Act, Subsection B of Section 70-13-3 NMSA 1978_and Subsection D of Section 70- 13-4 NMSA 1978. [20.6.8.3 NMAC N, mm/dd/yy]
- **20.6.8.4 DURATION:** December 31, 2030. [20.6.8.4 NMAC N, mm-dd-yy]
- **20.6.8.5 EFFECTIVE DATE:** Month Day, Year, unless a later date is cited at the end of a section. [20.6.8.5 NMAC N, mm-dd-yy]
- **20.6.8.6 OBJECTIVE:** The objective of 20.6.8 NMAC is to supplement the general requirements of 20.6.2.1200 through 20.6.2.2201 NMAC and 20.6.4.8 through 20.6.4.900 NMAC, and the general groundwater permitting requirements of 20.6.2.3000 through 20.6.2.3114 NMAC to control the discharges of water contaminants specific to water reuse. [20.6.8.6 NMAC N, mm-dd-yy]
- **20.6.8.7 DEFINITIONS:** The following terms as used in this part shall have the following meanings: terms defined in the Water Quality Act, but not defined in this part, shall have the meaning given in the act.
 - A. Terms beginning with numerals or the letter "A," and abbreviations for units. [RESERVED]
 - B. Terms beginning with the letter "B". [RESERVED]
 - C. Terms beginning with the letter "C". [RESERVED]
 - D. Terms beginning with the letter "D".
 - (1) "Department" means the New Mexico environment department.

- (2) "Direct potable reuse" means the application of reclaimed wastewater for drinking water purposes through the delivery of purified water directly to a drinking water plant or a drinking water distribution system without an environmental buffer. Additional treatment, monitoring, or an engineered buffer would be used in place of an environmental buffer to provide equivalent protection of public health and response time if the purified water does not meet specifications.
- (3) "Discharge permit" as defined in 20.6.2 NMAC.
- (4) "Disposal" as defined in 20.6.2 NMAC.
- (5) "Domestic wastewater" means untreated wastewater containing human excreta and water-carried waste from typical residential plumbing fixtures and activities, including but not limited to, wastes from toilets, sinks, bath fixtures, clothes or dishwashing machines and floor drains.
 - E. Terms beginning with the letter "E".
- (1) "Environmental buffer" means any ground water, streams, lakes, or impoundments used for reuse water storage or conveyance purposes related to an indirect potable application.
 - F. Terms beginning with the letter "F".
- (1) "Feasibility study" means a study conducted by a person to determine if a new or modified domestic wastewater treatment technology will be technically, economically, or financially viable for use in a direct or indirect potable application.
 - G. Terms beginning with the letter "G".
- (1) "Ground water" as defined in 20.6.2 NMAC.
 - H. Terms beginning with the letter "H". [RESERVED]
 - I. Terms beginning with the letter "I".
- (1) "Indirect potable reuse" means the application of reclaimed wastewater for drinking water purposes with an intermediary environmental or constructed buffer.
- (2) "Injection" as defined in 20.6.2 NMAC.
 - J. Terms beginning with the letter "J". [RESERVED]
 - K. Terms beginning with the letter "K". [RESERVED]

- L. Terms beginning with the letter "L". [RESERVED]
- M. Terms beginning with the letter "M". [RESERVED]
- N. Terms beginning with the letter "N".
- (1) "National Pollutant Discharge Elimination System" means the federal program for issuing, modifying, revoking, and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the federal Clean Water Act.
- **(2) "NPDES permit"** means a national pollutant discharge elimination permit which is an authorization, license, or equivalent control document issued by the authorized permitting entity to implement the requirements of the federal program as identified in 40 C.F.R. Sections 122, 123, and 124.
 - O. Terms beginning with the letter "O". [RESERVED]
 - P. Terms beginning with the letter "P".
 - (1) "Person" as defined in 20.6.2 NMAC.
 - (2) "Pilot project" means a representative engineering scale model or prototype system that is tested in a non-laboratory environment. A pilot project represents an increase in the technological scale than otherwise achievable in a laboratory and often involves larger quantities of materials over longer periods of time.
 - **(3) "Potable"** means water that that meets state drinking water standards at 20.7.10 NMAC and is otherwise suitable for human consumption.
 - (4) "Pretreatment" means the reduction, elimination, or alteration of pollutants in wastewater prior to or in lieu of discharging into a publicly owned treatment works (POTW) or other wastewater treatment facility. The reduction or alteration may be obtained by physical, chemical, or biological processes, process changes, or by other means. Appropriate pretreatment technology includes control equipment, such as equalization tanks or facilities, for protection against volumetric or pollutant surges or load variations that might interfere with or otherwise be incompatible with the treatment facility.
 - **(5) "Produced water"** means a fluid that is an incidental byproduct from drilling for or the production of oil and gas.
 - Q. Terms beginning with the letter "Q". [RESERVED]

- R. Terms beginning with the letter "R".
- (1) "Reclaimed wastewater" means domestic wastewater that has been treated to the specified levels for the defined applications and complies with other applicable local, state, or federal regulations.
- (2) "Reuse water" means a treated wastewater originating from domestic, industrial, or produced water sources, that has undergone a level of treatment appropriate for an application such as agriculture, irrigation, potable water supplies, aquifer recharge, industrial processes, or environmental restoration. Reuse water has a water quality, based on application, determined to be protective of the environment and human health. For purposes of this Part, reuse is categorized by the source of the water.
 - S. Terms beginning with the letter "S".
- (1) "State" means the state of New Mexico.
- (2) "Surface water" means a "surface water(s) of the state" as defined in 20.6.4 NMAC.
 - T. Terms beginning with the letter "T".
- (1) "Treated wastewater" means wastewater that has undergone treatment.
- **(2) "Treatment"** means a process in which wastewater has been reconditioned by biological, mechanical, or chemical processes to remove or eliminate contaminants, creating an effluent that can be returned to the water cycle either through discharge, transfer, storage, disposal, or distribution.
 - U. Terms beginning with the letter "U".
- (1) "Untreated produced water" means produced water that has not undergone treatment.
- (2) "Untreated wastewater" means wastewater that has not undergone treatment.
 - V. Terms beginning with the letter "V". [RESERVED]
 - W. Terms beginning with the letter "W".

- (1) "Water pollutant" as defined in 20.6.4 NMAC.
- (2) "Water pollution" as defined in Section 74-6-2 NMSA 1978.
- (3) "Wastewater" means water or other fluids associated directly with sewerage systems, industrial processes, or produced water that is disposed of, or undergoes treatment for discharge, transfer, storage, disposal, distribution, or reuse. Wastewater in this Part does not include dairy wastewater, as defined in 20.6.6 NMAC.
 - X-Z. Terms beginning with the letters "X" through "Z". [RESERVED] [20.6.8.7 NMAC N, mm-dd-yy]
- **20.6.8.8 20.6.8.99 [RESERVED]** [20.6.8.8-20.6.8.99 NMAC N, mm-dd-yy]
- **20.6.8.100 GENERAL PROVISIONS:** Unless otherwise required by this Part, all persons are subject to the state's Ground and Surface Water Protection Regulations at 20.6.2 NMAC. [20.6.8.100 NMAC N, mm-dd-yy]
- **20.6.8.101 20.6.8.199 [RESERVED]** [20.6.8.101-20.6.8.199 NMAC N, mm-dd-yy]
- **20.6.8.200 DOMESTIC WASTEWATER REUSE: [RESERVED]** [20.6.8.200 NMAC N, mm-dd-yy]
- 20.6.8.201 DIRECT AND INDIRECT POTABLE APPLICATIONS:
 - **A. Unauthorized applications.** The department shall not approve a discharge permit or a discharge permit modification that includes the discharge of reuse water for direct or indirect potable applications except for those authorized applications identified in Subsection B of 20.6.8.201 NMAC.
 - B. Authorized applications.
 - (1) Feasibility studies: Persons proposing to conduct a feasibility study for direct or indirect potable applications shall;
 - (a) Comply with all applicable permitting requirements in 20.6.2 and 20.6.4 NMAC.
 - (b) Ensure there is no connection between a potable water system and the water being studied and no cross connections exist between feasibility study-water and a community's potable water supply.

- (c) Ensure that all direct and indirect potable reuse feasibility studies are conducted in a manner that does not interfere with ongoing operations at the wastewater and drinking water facilities.
- (d) Obtain approval from the department, through either a discharge permit or NPDES permit and comply with all conditions therein.

[20.6.8.201 - N, mm-dd-yy]

20.6.8.202-299 [RESERVED] [20.6.8.202-20.6.8.299 NMAC – N, mm-dd-yy]

20.6.8.300 INDUSTRIAL WASTEWATER REUSE: [RESERVED]

 $[20.6.8.300 \, NMAC - N, \, mm-dd-yy]$

20.6.8.301-399 [RESERVED] [20.6.8.301-20.6.8.399 NMAC – N, mm-dd-yy]

20.6.8.400 PRODUCED WATER REUSE: As provided in the Water Quality Act, Subsection P of Section 74-6-4 NMSA 1978, and the Produced Water Act, Subsection B of Section 70-13-3 NMSA 1978, the following provisions apply to the discharge of produced water for activities unrelated to the exploration, drilling, production, treatment, or refinement of oil or gas.

A. General requirements.

- (1) Untreated produced water discharge to surface water: No person shall cause or allow untreated produced water to discharge so that it may move directly or indirectly to a surface water. The department shall deny certification of any federal permit proposing to discharge untreated produced water to a surface water.
- (2) Treated produced water discharge to surface water: No person shall cause or allow treated produced water to discharge so that it may move directly or indirectly to a surface water. The department shall deny certification of any federal permit proposing to discharge treated produced water to a surface water.
- (3) Untreated produced water discharge to ground water: No person shall cause or allow untreated produced water to discharge so that it may move directly or indirectly into ground water. The department shall not issue a discharge permit or a discharge permit modification that includes the discharge of untreated produced water.

(4) Treated produced water discharge to ground water: No person shall cause or allow treated produced water to discharge so that it may move directly or indirectly into ground water. The department shall not issue a discharge permit or a discharge permit modification that includes the discharge of treated produced water.

B. Authorized pilot projects

Pilot projects determined by the department not to require a discharge permit because the pilot project will not discharge in a manner that may directly or indirectly affect ground or surface water, are subject to the following requirements:

- (1) Persons intending to conduct a pilot project shall secure and comply with all applicable federal, state, and local statutes, permits, and certifications, including the Produced Water Act, Sections 70-13-1, et. seq NMSA 1978, and including payment of department fees and satisfying department financial assurance requirements.
- **(2)** The pilot project shall be designed to provide information specific to untreated produced water quality, treatment technologies, treated produced water quality, treatment volumes, and toxicity studies for potential produced water reuse applications.
- **(3)** Any person intending to conduct a pilot project shall submit to the ground water quality bureau of the department an application for a produced water pilot project permit prior to use.
- (4) Pilot projects shall not commence until the department has issued a pilot project permit.
- (5) Persons distributing, transporting, storing, treating, or utilizing untreated or treated produced water shall have written procedures at the locations where the pilot project is physically located to describe measures to prevent releases onto the ground, directly or indirectly into ground or surface water.
- **(6)** All untreated and treated produced water shall be handled, transported, distributed, and stored in accordance with all applicable local, state, and federal regulations.
- (7) Any release of untreated or treated produced water is subject to the notifications and corrective actions in 20.6.2.1203 NMAC except releases under the authority of the oil conservation commission pursuant to the provisions of the Oil and Gas Act, NMSA 1978, Section 70-2-12 and other laws conferring power on

the oil conservation commission and the oil conservation division of the energy, minerals, and natural resources department to prevent or abate water pollution.

- (8) Persons disposing of untreated or treated produced water, as part of the final disposition following a pilot project shall use an appropriate method approved by the department, which may include one of the following methods in accordance with the relative permit: discharge to a produced water disposal well permitted pursuant to the oil conservation commission's regulations for oil and gas injection at 19.15.26 NMAC, delivery to a surface waste management facility permitted pursuant to the oil conservation commission's regulations for oil and gas surface waste management facilities at 19.15.36 NMAC, or disposal in a permanent pit permitted pursuant to the oil conservation commission's regulations for oil and gas pits, closed-loop systems, below-grade tanks and sumps at 19.15.17 NMAC. The department may consider alternative disposal options on a case-by-case basis.
 - **(9)** Persons disposing of the components of a pilot project using untreated or treated produced water, as part of the final disposition must adhere to all local, state, and federal regulations, as applicable.

C. Produced Water Pilot Project Permit.

- (1) Any person intending to use produced water for an authorized pilot project under Subsection B of 20.6.8.400 NMAC shall submit to the ground water quality bureau of the department an application for a produced water pilot project permit prior to use and shall not proceed with the project until the application is approved.
 - (a) Applications shall be on a form provided by the department and shall include the following information:
 - the name and address of the person intending to conduct the pilot project;
 - (ii) the location of the intended pilot project;
 - (iii) the concentration of water contaminants in the untreated produced water used in the pilot project;
 - (iv) the daily quantity of produced water treated in the pilot project;
 - (v) the pilot project research plan and objectives;

- (vi) documentation that the pilot project design is consistent with the approved uses in Subsection B of 20.6.8.400 NMAC;
- (vii) the storage, secondary containment and spill prevention methods that will be used to prevent accidental discharges; and the plans for a monitoring program and devices to detect any such discharges;
- (viii) a plan to transport in and transport out any untreated produced water or treated produced water in a safe manner, in accordance with state and federal regulations;
- (ix) plans for safe handling, characterization, and proper disposal of produced water, treatment residuals and wastes, and any materials that come into contact with untreated produced water or treated produced water, and any other waste generated by the project, including soils, plant material, treatment equipment, and containment area materials;
- (x) plans to minimize the risk of human exposure to produced water via any exposure pathway; and
- (xi) financial assurance in place to cover the cost of cleanup and remediation in the event of failure during operation and closure of the pilot project.
- (xii) proposed locations and newspaper for providing notice of the pilot project consistent with the manner of notice required of discharge permit applications set out in 20.6.2.3108.A.
- (b) The department, at its discretion, may request additional information.
- (c) Based on the information provided in the application, the department shall determine whether the application is administratively complete and notify the applicant of any deficiencies.
- (2) Following a determination that an application is administratively complete, the applicant and department shall proceed with the further public notice and participation requirements set out in 20.6.2.3108.B-N and 20.6.2.3110; and the relevant evaluation and action requirements set out in 20.6.2.3109 and 20.6.2.3111. The plans required of the applicant in Section C (1) shall be incorporated into the pilot project permit as enforceable conditions. The department shall provide in the permit a

daily maximum produced water capacity and the term of any pilot project permit shall not exceed five years. Appeals from the secretary's decisions and the commission's decisions may be taken in accordance with 20.6.2.3112 and 20.6.2.3113.

(3) Data Reporting Requirements

- (a) Persons implementing pilot projects pursuant to Subsection B of 20.6.8.400 NMAC shall submit to the department all research results, including lab analyses of all water contaminants in the untreated produced water and treated produced water, to assist the department in developing standards and assist the commission in promulgation of regulations for the use of treated produced water in a manner that prevents water pollution and protects human health and the environment.
- (b) Persons implementing pilot projects pursuant to Subsection B of 20.6.8.400 NMAC shall submit to the department monthly reports with the volume of water treated, water quality data for all liquid streams, and the volumes, mass, and characteristics of liquid and solid waste disposed of, as requested by the department.
- (c) The department shall publish on its website all applications for produced water pilot project permits, all written procedures and plans required by Paragraphs B and C of this Section, the department's determination, and supplemental information provided by the applicant at the department's request.

20.6.8.401-20.6.8.899 [RESERVED] [20.6.8.401-20.6.8.899 NMAC – N, mm-dd-yy]

20.6.8.900 REFERENCES: [**RESERVED**] [20.6.8.900 NMAC – N, mm-dd-yy]