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10. NMAC Name		
Title	Chapter	Part
ENVIRONMENTAL PROTECTION	WATER QUALITY	GROUND AND SURFACE WATER PROTECTION

11. Amendment Description (*Amendment filing only*)	12. Amendment's NMAC Citation (*if applicable*)
Amend 16 sections and add 24 new sections	20.6.2 NMAC Sections 3106, 3107, 3109, 5001-5004, 5101-5104, 5200, 5201, 5204, 5209, 5210 & 5300-5363

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14. Are there any materials incorporated by reference?

No [X] Yes [ ]

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16. Legal citation(s) that allows the *Issuing Agency* to regulate and the *Issuing Authority* to promulgate regulations on this subject (*provide all that apply*).

Sections 74-6-2(K), 74-6-4(E), 74-6-4(K), 74-6-8 NMSA 1978

17. Signature & Title of Issuing Authority (*Delegation authority letter MUST be on file with ALD*)

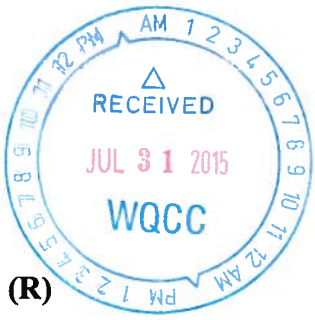
Name: Ryan Flynn *Check if delegated authority* [ ]

Title: Chair, Water Quality Control Commission

Signature [Black Ink Only] 7/31/15 Date Signed

1.24.10 NMAC

STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION



IN THE MATTER OF:	)	
PROPOSED AMENDMENT	)	**No. WQCC 14-15 (R)**
TO 20.6.2.3000 NMAC and 20.6.2.5000 NMAC	)	

THE WATER QUALITY CONTROL COMMISSION'S STATEMENT OF REASONS AND FINAL ORDER

This matter comes before the Water Quality Control Commission ("WQCC") following a public hearing before the WQCC and a Hearing Officer (Morris J. Chavez, Esq.) on July 14, 2015, in Artesia, New Mexico.

Navajo Refining Company, LLC ("Navajo" or "Petitioner") petitioned the WQCC to propose new rules authorizing Class I underground injection control ("UIC") wells for hazardous waste (Class I hazardous waste injection wells), generated by oil refineries, and hereinafter referred to as the Water Conservation Rule ("WCR"). The WCR is based on and incorporates by reference, portions of existing federal regulations, promulgated under the authority of the federal Safe Drinking Water Act ("SWDA"). The proposed WCR ensures that the New Mexico SWDA regulations for Class I hazardous waste injection wells are, at a minimum, as stringent as federal regulations.

The Oil Conservation Division ("OCD") of the Energy, Minerals, and Natural Resources Department presented technical testimony in support of the proposed rulemaking. OCD participated in the development of the WCR which allowed for additional content that was incorporated into the final version.

After a full deliberation on the WCR and having granted full support to the WCR, the WQCC submits the following Statement of Reasons in support of their decision:

1. Petitioner filed a Second Amended Petition to Amend 20.6.2.3000 NMAC and 2.6.2.5000 NMAC to adopt new rules authorizing Class I UIC wells for hazardous waste generated by oil refineries, referred to above as the Water Conservation Rule or WCR. Petitioner made further proposed changes to the WCR on June 15, 2015, in Exhibit B to the Technical Testimony of Robert O'Brien. The June 15, 2015, version of the WCR is the version before the Commission for decision.
2. The WCR is based on and incorporates by reference portions of existing federal regulations, promulgated under the authority of the SWDA for Class I hazardous waste injection wells. Specifically, the proposed WCR, amends Sections 20.6.2.3106-07, 20.6.2.3109, 20.6.2.5002-04, 20.6.2.5101-04, 20.6.2.5200-01, 20.6.2.5204, and 20.6.2.5209-10 NMAC and adds new text as 20.6.2.5300 through 20.6.2.5399 NMAC.
3. The Commission agrees the benefits of authorizing Class I hazardous waste UIC wells for oil refineries include the following:
    a. Water conservation: Authorizing the State to issue Class I hazardous waste UIC well permits to oil refineries promotes water reuse and conservation by allowing refineries to reuse water by extracting and disposing of hazardous constituents in the waste streams generated by oil refineries.
    b. Waste minimization: The WCR promotes waste minimization. Through water reuse, the final effluent stream sent to a Class I hazardous waste injection well could be materially smaller than a full effluent stream that is typically disposed of in Class I nonhazardous waste injection wells. Volumes of waste generated by oil refineries may therefore be minimized.

c. Economic benefits: The WCR provides a number of economic benefits to communities supporting refineries. Through reuse of water and reduction of fresh water usage by oil refineries, more fresh water will be available for use by surrounding communities and businesses, including agriculture-related businesses.

d. Preservation of disposal capacity: The WCR reduces effluent discharges to existing Class I nonhazardous waste UIC wells to preserve finite capacity in such wells. Preserving capacity facilitates continued oil and gas production by ensuring sufficient resources are available in the future to process additional crude oil and recovered oil.

e. Improved oil and gas industry reliability: The WCR allows those in the oil and gas industry to improve reliability in their systems and production by allowing the refineries they depend upon to manage unexpected increases in concentrations of chemical constituents in the wastewater stream that may exceed hazardous waste thresholds. Currently, refineries must treat wastewater streams before disposal so wastewater streams do not exceed hazardous waste thresholds, which in some instances can curtail crude oil throughput. Creating disposal capacity for hazardous wastewater streams allows refineries to maintain greater crude oil throughput, avoiding adverse financial consequences to their suppliers and the State.

4. Oil refining companies must complete a number of processes in order to transform crude oil and recovered oil (i.e., oil recovered from oil-bearing residuals generated in the refining industry) into refined products. During these processes refineries use significant

quantities of water and generate wastewater streams that can be recycled, especially if certain chemical constituents can be removed from these wastewater streams to enable reuse. Some of these chemical constituents could be considered hazardous waste if present in sufficient concentrations. Class I hazardous waste UIC wells provide a demonstrated means for safely disposing of such wastes in deep geologic formations that are isolated from aquifers used as water supplies. The deep formations used for injection would be substantially below aquifers used for fresh drinking and agricultural/industrial water supplies and are separated from those supplies by numerous layers of impermeable rock formations. The WCR requires that any injection of fluids through a Class I hazardous waste UIC well must occur beneath the lowermost formation that contains 10,000 mg/l or less of total dissolved solids ("TDS").

5. The federal Class I hazardous waste injection well regulations were promulgated in 1980 and have a demonstrated history of protecting human health and the environment. In 1983, New Mexico was granted primacy over the UIC program for all Class I wells.[1] After New Mexico assumed primacy, EPA amended the regulations applicable to Class I hazardous waste injection wells.[2] New Mexico never amended its regulations to incorporate the changes made in the federal regulations. Instead, in 2001, New Mexico eliminated the regulations authorizing Class I hazardous waste UIC well permits because no such wells had been permitted or constructed under the regulations.

6. The WCR does not alter the responsibilities of the NMED or OCD with respect to administering the UIC program currently delegated to the State by the EPA under the SDWA. Since the WCR applies to oil refineries only, the WCR would be administered

[1] *See* 40 CFR § 147.1601.
[2] 53 Fed. Reg. 28,118 (July 28, 1988).

by OCD. OCD currently administers the UIC program for Class I injection wells for oil and gas related industries, including refineries, pursuant to the EPA's delegation to New Mexico under the SDWA, the 1982 Joint Powers Agreement Between the Environmental Improvement Division, the Oil Conservation Division, and the Mining and Minerals Division, and NMSA 1978, § 70-2-12.

7. As described below, the Commission agrees that Class I hazardous waste UIC wells are a safe and economical way to dispose of hazardous wastewater. The federal regulations on which the WCR is based are comprehensive, imposing exacting requirements for the selection of the site, well construction standards, and the day-to-day operations to ensure that the State's groundwater resources are safe and secure. The WCR also satisfies New Mexico's criteria protecting groundwater, the environment, and other resources.

Background of Class I Injection Wells

8. Wastewater is an unavoidable byproduct of the manufacturing processes that create thousands of products we use every day. While industries continue to research and implement ways to reduce waste by recycling and improving manufacturing processes, wastewater is still generated and requires disposal. Class I UIC wells represent a technically sound and safe disposal option for such wastewater, as demonstrated by stringent design and operating requirements and a history of safe disposal that spans many decades.

Regulatory Framework for UIC Wells

9. Underground injection refers to the placement of fluids, often wastewater, underground through a well bore. As the EPA Regional Office for Region 6 found, "some waste fluids are generated in such volumes as to make treatment economically impractical. If properly constructed, and operated, injection wells are by far the best way to dispose of these waste fluids."[3] In contrast, the lack of this option "removes a safe, economically proven technology by which wastes can be effectively addressed."[4]

10. As part of the SDWA, the federal UIC program was established.[5] Since groundwater is a major source of drinking water in the United States, the UIC program requirements were designed to prevent groundwater contamination. Most groundwater used as drinking water today contains less than 3,000 mg/l TDS. The UIC program adds a significant margin of safety and protects waters with significantly higher concentrations of TDS of up to 10,000 mg/l to ensure that all water with the potential to be treated and used as drinking water in the future is protected.

11. New Mexico, like other states and the federal government, has a reasonable objective to protect any underground source of drinking water ("USDW"). A USDW is defined by EPA as an "aquifer or its portion which supplies any public water system or contains a sufficient quantity of groundwater to supply a public water system, and either currently supplies a public water system, or contains less than 10,000 mg/l of [TDS] and is not an exempted aquifer."[6] In essence, a USDW is a collection of clean water large enough that it could potentially serve the public. New Mexico's existing UIC regulations go further

[3] ENVIRONMENTAL PROTECTION AGENCY, *Frequently Asked Questions About the Underground Injection Control Program*, http://www.epa.gov/Region6/water/swp/uic/faq3.htm#banned.
[4] *Id.*
[5] 42 U.S.C. §300h.
[6] 40 CFR § 144.3

and "protect all ground water of the State of New Mexico which has an existing concentration of 10,000 mg/l or less TDS, for present and potential future use as domestic and agricultural water supply, and to protect those segments of surface waters which are gaining because of ground water inflow for uses designated in the New Mexico Water Quality Standards."[7] New Mexico's existing UIC regulations allow the State to designate exempted aquifers, but only if the TDS concentration is 5,000 mg/l or more. The existing standard would also apply to the WCR.

Class I Wells

12. There are six classes of underground injection wells. These classes are based on the types of fluids injected and, in some cases, the industries that they support. Each well classification has technical standards for well design and construction, injection depth, and operating and monitoring techniques in order to ensure that all wells are designed and operated in a way that protects drinking water.
13. Class I wells, which are further classified as hazardous and nonhazardous wells, inject industrial or municipal wastewater far beneath the lowermost source of drinking water. Class I wells are used mainly by the following industries: petroleum refining, metal production, chemical production, pharmaceutical production, commercial waste disposal, food production, and municipal wastewater treatment.[8]
14. Class I wells inject wastewater into geologic formations that lack suitable water quality to qualify as a USDW (or groundwater of the State of New Mexico) and are typically located thousands of feet below the land surface. The geological formation into which

[7] Section 20.6.2.5001 NMAC.
[8] ENVIRONMENTAL PROTECTION AGENCY, *Industrial & Municipal Waste Disposal Wells (Class I)*, http://water.epa.gov/type/groundwater/uic/wells_class1.cfm.

the wastewater is injected, known as the injection zone, must be demonstrated to be sufficiently porous and permeable so that the wastewater can enter the rock formation without an excessive buildup of pressure. The injection zone is typically beneath a large, relatively impermeable layer of rock, known as the confining zone, which along with the natural force of gravity, will hold injected fluids in place and restrict them from moving upward toward a USDW (or groundwater of the State of New Mexico).

15. According to EPA's most recent data, there are currently 678 Class I injection wells in the United States.[9] 117 of these wells (17%) are Class I hazardous waste injection wells.[10] A significant number of Class I hazardous waste injection wells are located in EPA Region 6 (comprised of Arkansas, Louisiana, New Mexico, Oklahoma, Texas, and 66 Native American Tribes).[11] 21 states currently have Class I hazardous waste injection wells.[12] Texas has the greatest number of Class I hazardous waste injection wells followed by Louisiana.[13]

Federal Regulations for Class I Wells

16. Federal regulations strictly control the construction and operation of Class I UIC wells. Class I wells must be located in geologically stable areas that are free of fractures or faults through which injected fluids could travel to drinking water sources.[14] Well operators must also show that there are no wells or other artificial pathways between the injection zone and USDWs through which fluids can travel. Further, limitations on the

[9] ENVIRONMENTAL PROTECTION AGENCY, *UIC Inventory by State – 2011*, http://water.epa.gov/type/groundwater/uic/upload/uicinventorybystate2011.pdf.
[10] *Id.*
[11] *Id.*
[12] *Id.*
[13] *Id.*
[14] 40 CFR §146.62.

locations where Class I wells can be sited ensure that the site-specific geologic properties of the subsurface around the well provide additional safeguards against the movement of injected wastewaters to a USDW.

17. Class I hazardous waste UIC wells are designed and constructed to prevent the movement of injected wastewaters into USDWs. Their stringent, multi-layer construction[15] has many redundant safety features. One of these features is the well's casing, which prevents the borehole from caving in. The casing is typically made out of steel or fiberglass-reinforced plastic material that is compatible with the injected fluids. It consists of an outer surface casing, that extends the entire depth of the well, and an inner "long string" casing that extends from the surface to or through the injection zone. The innermost layer of the well, the injection tubing, brings injected wastewater from the surface to the injection zone.

18. All of the materials used in Class I hazardous waste UIC wells must be compatible with the wastewater, geologic formations, and fluids into which they will come in contact. A constant pressure is maintained at the well head and that pressure is continuously monitored to verify the well's mechanical integrity and proper operational conditions.[16] Trained operators are responsible for day-to-day injection well operation, maintenance, monitoring, and testing.[17] In addition to monitoring the well operation, operators of hazardous waste wells are required to develop and follow a waste analysis plan for monitoring the physical and chemical properties of the injected wastewater.[18]

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[15] Wells typically consist of three or more concentric layers of pipe: surface casing, long string casing, and injection tubing. Class I hazardous wells must have 3 layers of casing. 40 CFR § 146.65(c).
[16] 40 CFR §146.67.
[17] 40 CFR §146.13(b).
[18] 40 CFR §146.68 (a).

19. Finally, Class I hazardous waste UIC wells are continuously monitored and controlled, usually with sophisticated computers and digital equipment, which provide real-time data and information to the well operator. Thousands of data points about the pumping pressure for fluid disposal, the pressure in the space between the injection tubing and the well casing (that shows there are no leaks in the well), and data on the fluid being disposed of, such as its temperature and flow rate, are monitored and recorded each day.[19]

20. Alarms are connected to sound if anything out of the ordinary happens, and if unusual pressures are sensed by the monitoring equipment, the well pump automatically shuts off.[20] Disposal in the well does not resume until the cause of the unusual event is investigated, and the parties responsible for operating the well and the regulatory agencies both are sure that no environmental harm has been or will be done by well operations.[21]

21. The wells are also tested regularly, using special tools that are inserted into the well to record data about the well and surrounding rock formations. Regulators review all the data about the well operations, monitoring and testing frequently, and inspecting the well site to make sure everything is operating according to the requirements put in place to protect drinking water sources.

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[19] 40 CFR §146.67(a).
[20] 40 CFR §146.67(f). Class I hazardous waste injection well operators may either install an automatic shut-off switch or maintain a trained operator on-site at all times when the well is operating. *Id.*
[21] 40 CFR 146.67(h).

Safety Factors and Safety Record

22. Because Class I hazardous waste UIC wells inject waste far below the deepest USDW, there is very little chance of any adverse effect on groundwater that could be used for domestic or agricultural water supply. In fact, in its March 2001 Study of Class I UIC wells, EPA said that "the probability of loss of waste confinement due to Class I injection has been demonstrated to be low" and "existing Class I regulatory controls are strong, adequately protective, and provide an extremely low-risk option in managing the wastewaters of concern."[22] In other words, the related impermeable confining layers above the injection zone and the many layers of protection required in the construction, operation, and monitoring of wells effectively protect USDWs by providing multiple, redundant safeguards against upward fluid movement.

23. Class I hazardous waste UIC wells that meet EPA's design and operating requirements are well studied and pose minimal risks. In 1998, scientists quantitatively estimated the risk of waste containment loss as a result of various sets of events associated with Class I hazardous waste wells.[23] According to the study, because of the redundant safety systems in a typical Class I hazardous waste UIC well, loss of containment would require a series of improbable events to occur in sequence. As a result, the calculated probability of containment loss resulting from each of the scenarios examined ranges from one-in-one-million to one-in-ten-quadrillion.[24]

24. In the field, the probability of Class I UIC well failures, both nonhazardous and hazardous, has also been demonstrated to be very low. Some early Class I UIC well

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[22] EPA, CLASS I UNDERGROUND INJECTION CONTROL PROGRAM: STUDY OF THE RISKS ASSOCIATED WITH CLASS I UNDERGROUND INJECTION WELLS xiii, 42 (March 2001) (emphasis supplied).
[23] Rish, W.A., T. Ijaz, and T.F. Long, *A Probabilistic Risk Assessment of Class I Hazardous Waste Injection Wells,* 1998.
[24] *Id.*

failures were a result of historic practices that are no longer permissible under current federal UIC regulations, such as improper well construction or improper well closure upon cessation of operations. As discussed above, Class I hazardous waste UIC wells now have redundant safety systems and several protective layers; an injection well would fail only when multiple systems fail in sequence without detection. In the unlikely event that a well would fail, the geology of the injection and confining zones serves as a final safety mechanism to prevent movement of wastewater to drinking water resources. Injection well operators invest millions of dollars in the permitting, construction, and operation of wells and, even in the absence of UIC regulations, would carefully monitor the integrity of the injection operation to safeguard their investments.

25. Failures of Class I UIC wells are exceedingly rare and have generally not resulted in significant harm to the environment or fresh water supplies. Typically, any failures of mechanical integrity that have occurred are internal failures, detected by continuous pressure monitoring systems or integrity tests. Any wells that fail are shut down until they are repaired to the satisfaction of the regulatory agency. EPA's study of more than 500 Class I nonhazardous and hazardous UIC wells showed that loss of mechanical integrity contributed to only 4 cases of significant wastewater migration (none of which affected a drinking water source) over several decades of operation.[25] This safety record can be attributed to the rigorous requirements for monitoring and ensuring that the well materials are compatible with the wastewater injected.

[25] EPA, CLASS I UNDERGROUND INJECTION CONTROL PROGRAM: STUDY OF THE RISKS ASSOCIATED WITH CLASS I UNDERGROUND INJECTION WELLS 41 (March 2001).

Summary of WCR

26. The WCR is based on federal regulations for Class I hazardous waste UIC wells found in 40 CFR Parts 144 and 146. The WCR draws from these federal provisions in two ways. First, in many cases, entire CFR provisions have been incorporated verbatim from the federal regulations (with minor conforming changes discussed below) and, as a result, are as stringent as the federal regulations. Minor adjustments were made to reflect the fact that (1) the regulations would be administered by OCD rather than by EPA and (2) the regulations will become a part of the NMAC. As a result, names, titles, and cross references have been adjusted to refer to New Mexico agencies and existing provisions in the NMAC. Second, where practicable, the WCR incorporates relevant subparts CFR by reference.

27. In most cases, New Mexico's existing UIC requirements are functionally equivalent to EPA's regulations. In turn, the WCR is at a minimum as stringent as EPA's regulations. In a few cases, however, New Mexico's existing UIC program is more stringent than EPA's regulations and, as a result, certain provisions of the WCR provisions are more stringent than their counterparts in the CFR. Finally, the WCR amends several existing sections of the NMAC because Class I hazardous waste UIC wells would no longer be prohibited under New Mexico law. The following paragraphs summarize the regulations, which are included in full as Attachment A to this Statement of Reasons. In addition, Table 1 below provides a cross reference between each applicable federal regulation for Class I hazardous waste injection wells and the corresponding NMAC provision.

Existing Regulations

28. The WCR amends Sections 20.6.2.3106-07, 20.6.2.3109, 20.6.2.5002-04, 20.6.2.5101-04, 20.6.2.5200-01, 20.6.2.5204, and 20.6.2.5209-10 NMAC. These amendments primarily involve administrative updates to reflect the fact that Class I hazardous waste UIC wells are no longer be prohibited and that the State's UIC regulations are expanded to include Sections 20.6.2.5300 through 20.6.2.5399 NMAC. The only substantive change to existing regulations is an expansion of the reporting requirements for Class I hazardous waste UIC wells in Subsection G(2) of Section 20.6.2.5101 NMAC.

New Regulations

29. Sections 20.6.2.5300 through 5303 NMAC. The WCR starts with several new provisions that provide necessary context and state-specific structure that are not based on the federal UIC provisions. Section 20.6.2.5300 NMAC provides the requirements for Class I hazardous waste UIC wells and expressly limits the scope of the Class I hazardous waste UIC well program to petroleum refineries. Section 20.6.2.5301 NMAC includes all of the definitions applicable to Class I hazardous waste UIC wells (beyond those generally applicable to 20.6.2 NMAC). Section 20.6.2.5302 NMAC provides the fee provisions for Class I hazardous waste UIC wells, including a filing fee, permit fee, annual administrative fee, renewal fee, modification fee, and financial assurance fee. Section 20.6.2.5303 authorizes the conversion of existing Class I nonhazardous UIC wells to Class I hazardous UIC wells provided the permit applicant complies with all requirements for Class I hazardous UIC wells and obtains the a Class I hazardous waste UIC permit. Sections 20.6.2.5304 through 20.6.2.5309 NMAC are reserved.

30. Sections 20.6.2.5310. Section 20.6.2.5310 NMAC provides the requirements for UIC wells injecting hazardous waste required to be accompanied by a manifest. This provision is substantially similar to the corresponding EPA regulation with updated cross references to the NMAC. Sections 20.6.2.5311 through 5319 NMAC are reserved.

31. Sections 20.6.2.5320 through 5321 NMAC. These provisions incorporate by reference EPA's financial assurance requirements for Class I hazardous waste UIC wells found in 40 CFR Part 144, subpart F. The provisions authorize financial assurance using trust funds, surety bonds, letters of credit, insurance, and corporate guarantees by a permit applicant's corporate parent. To be consistent with the State's existing UIC regulations, the WCR does not incorporate by reference federal regulations that permit a financial test by a permit applicant. The WCR also does not incorporate by reference federal provisions that address EPA-administered programs or state assumption of responsibility for plugging and abandonment of Class I hazardous waste UIC wells. Sections 20.6.2.5322 through 5339 NMAC are reserved. To avoid unnecessary expenditure of the Commission's resources in the event that 40 CFR Part 144, subpart F is amended, the Commission is deleting the reference in the proposed WCR to the current effective date of the CFR.

32. Sections 20.6.2.5340 through 5344 NMAC. These provisions are based on EPA's conditions applicable to all UIC permits found in 40 CFR Part 144, subpart E, although the WCR limits their applicability to Class I hazardous waste UIC wells and does not include EPA regulations applicable to other classes of wells. These provisions include many of the procedural and administrative requirements of the Class I hazardous waste UIC well program including, for example, the duty to reapply at the end of the permit

term as well as schedules of compliance and monitoring, recordkeeping, and reporting obligations. The requirements are substantially similar to the corresponding EPA regulations applicable to Class I hazardous waste UIC wells. One area where the WCR is more stringent than EPA is the requirement that the director of OCD provide written approval for the transfer of a Class I hazardous waste UIC well permit. Sections 20.6.2.5345 through 5350 NMAC are reserved.

33. Sections 20.6.2.5351 through 5363 NMAC. These provisions are based on EPA's substantive criteria and standards for Class I hazardous waste UIC wells found in 40 CFR Part 146, subpart G. These provisions provide applicability criteria; minimum siting requirements; corrective action provisions; construction and operating requirements; testing, monitoring, and reporting requirements; and closure and post-closure requirements. These provisions also provide the technical requirements that will be applicable to Class I hazardous waste UIC wells. The provisions in the WCR are substantially similar to EPA regulations, with appropriate updates to cross references addressing New Mexico's existing UIC regulations. There are no substantive additions or deletions to these sections. Sections 20.6.2.5364 through 5399 NMAC are reserved.

Consistency with NMSA 1978, § 76-6-4-(e)

34. In consideration of the technical testimony submitted on June 15, 2015, as well as the testimony and exhibits presented at the July 14, 2015, hearing before the Commission, we conclude that the WCR meets each of the seven factors listed in NMSA 1978, Section 74-6-4(E).

(1) character and degree of injury to or interference with health, welfare, environment and property. Approving the WCR and authorizing OCD to permit Class I hazardous waste UIC wells will provide a means of disposing of hazardous waste from refineries in a way that avoids any injury to or interference with health, welfare, environment or property. Evidence presented at the hearing demonstrated that Class I hazardous waste UIC well programs have been successfully implemented elsewhere in the United States. Furthermore, technical evidence was presented demonstrating that the WCR includes provisions to ensure that Class I hazardous waste UIC wells will be sited, constructed, operated, and closed in a manner that prevents migration of hazardous chemicals from injection zones into groundwater of the state of New Mexico.

(2) the public interest, including the social and economic value of the sources of water contaminants. Evidence presented at the hearing established that the WCR is in the public interest. Groundwater is a valuable public resource that will be protected and conserved by the WCR. First, the WCR will protect water resources by ensuring that any hazardous waste injected through Class I hazardous waste UIC wells will not migrate into groundwater aquifers. Second, the evidence presented at the hearing established that operation of Class I hazardous waste UIC wells will allow refineries to implement water conservation measures that will reduce demand for fresh water, thereby conserving water and making it available for other public uses. Third, allowing refineries to operate Class I hazardous waste UIC wells will provide additional operational flexibility, allowing refineries to continue to provide economic benefits to the communities in which they are located.

(3) technical practicability and economic reasonableness of reducing or eliminating water contaminants from the sources involved and previous experience with equipment and methods available to control the water contaminants involved. The evidence presented at the hearing demonstrated that EPA and other organizations who have studied Class I hazardous waste UIC wells have determined that they are a technically and economically feasible method of disposing of hazardous waste. Further, evidence presented at the hearing demonstrated that adopting the WCR and allowing refineries to seek Class I hazardous waste UIC wells will not increase the waste disposed of by refineries into the environment. Instead, it will allow refineries to implement water conservation measures that will concentrate existing wastewater streams prior to disposal into underground formations that are geologically isolated from potable drinking water.

(4) successive uses, including but not limited to domestic, commercial, industrial, pastoral, agricultural, wildlife and recreational uses. The evidence presented at the hearing established that the WCR will promote preserve future uses of water. Specifically, authorizing OCD to issue permits for Class I hazardous waste UIC wells will allow refineries to implement water conservations measures that will allow refineries to reduce their use of freshwater supplies and thereby increase the supply of freshwater available for other uses in the State, including domestic, commercial, industrial, pastoral, agricultural, wildlife, and recreational uses.

(5) feasibility of a user or a subsequent user treating the water before a subsequent use. The evidence presented at the hearing established that treatment of contaminated groundwater, while technically feasible, is rarely economically feasible. Instead, wastewater streams should be managed in a manner that avoids contamination in the first

instance. Testimony presented at the hearing established that disposal of hazardous waste through UIC wells is among the safest means of disposing of such waste and, thereby, reduces the risk that water resources will become contaminated.

(6) property rights and accustomed uses. The evidence presented at the hearing established that authorizing Class I hazardous waste UIC wells will not jeopardize property rights or accustomed uses. Specifically, hazardous wastes injected into Class I UIC wells will be confined in injection zones well beneath any potable water and will not migrate from the injection zone into groundwater of the United States for a period of at least 10,000 years.

(7) federal water quality requirements. The evidence presented at the hearing established that the WCR is consistent with federal water quality requirements. In fact, the WCR is based largely on the federal regulations for Class I hazardous waste UIC wells in 40 CFR Parts 144 and 146. We conclude that the WCR is at least as stringent as—and is fact more stringent than—the corollary EPA requirements.

Proposed NM Class I Hazardous Waste UIC Program Rules—New Rule Sections

CFR Cite/Title	NMAC Cite	Notes
40 CFR Part 144 Subpart A - General Provisions (one section)		
§ 144.14 Requirements for wells injecting hazardous waste.	20.6.2.5310	Federal text adopted with conforming changes
40 CFR Part 144 Subpart E - Permit Conditions (all sections)		
§ 144.51 Conditions applicable to all permits.	20.6.2.5341	Federal text adopted with conforming changes
§ 144.52 Establishing permit conditions.	20.6.2.5342	Federal text adopted with conforming changes
§ 144.53 Schedule of compliance.	20.6.2.5343	Federal text adopted with conforming changes
§ 144.54 Requirements for recording and reporting of monitoring results.	20.6.2.5344	Federal text adopted with conforming changes
§ 144.55 Corrective action.	N/A	N/A
40 CFR Part 144 Subpart F - Financial Responsibility: Class I Hazardous Waste Injection Wells (all sections)		
§ 144.60 Applicability.	20.6.2.5320	Incorporated By Reference
§ 144.61 Definitions of terms as used in this	20.6.2.5320	Incorporated By Reference

CFR Cite/Title	NMAC Cite	Notes
subpart.		
§ 144.62 Cost estimate for plugging and abandonment.	20.6.2.5320	Incorporated By Reference
§ 144.63 Financial assurance for plugging and abandonment.	20.6.2.5320	Incorporated By Reference
§ 144.64 Incapacity of owners or operators, guarantors, or financial institutions.	20.6.2.5320	Incorporated By Reference
§ 144.65 Use of State-required mechanisms.	N/A	N/A
§ 144.66 State assumption of responsibility.	N/A	N/A
§ 144.70 Wording of the instruments.	20.6.2.5320	Incorporated By Reference
40 CFR Part 146 Subpart G - Criteria and Standards Applicable to Class I Hazardous Waste Injection Wells (all sections)		
§ 146.61 Applicability.	20.6.2.5351	Federal text adopted with conforming changes
§ 146.62 Minimum criteria for siting.	20.6.2.5352	Federal text adopted with conforming changes
§ 146.63 Area of review.	20.6.2.5353	Federal text adopted with conforming changes
§ 146.64 Corrective action for wells in the area of review.	20.6.2.5354	Federal text adopted with conforming changes
§ 146.65 Construction requirements.	20.6.2.5355	Federal text adopted with

CFR Cite/Title	NMAC Cite	Notes
		conforming changes
§ 146.66 Logging, sampling, and testing prior to new well operation.	20.6.2.5356	Federal text adopted with conforming changes
§ 146.67 Operating requirements.	20.6.2.5357	Federal text adopted with conforming changes
§ 146.68 Testing and monitoring requirements.	20.6.2.5358	Federal text adopted with conforming changes
§ 146.69 Reporting requirements.	20.6.2.5359	Federal text adopted with conforming changes
§ 146.70 Information to be evaluated by the Director.	20.6.2.5360	Federal text adopted with conforming changes
§ 146.71 Closure.	20.6.2.5361	Federal text adopted with conforming changes
§ 146.72 Post-closure care.	20.6.2.5362	Federal text adopted with conforming changes
§ 146.73 Financial responsibility for post-closure care.	20.6.2.5363	Federal text adopted with conforming changes
40 CFR Part 148 Subpart A - General (all sections)		
§ 148.1 Purpose, scope and applicability.	20.6.2.5371	Incorporated By Reference
§ 148.2 Definitions.	20.6.2.5371	Incorporated By Reference
§ 148.3 Dilution prohibited as a substitute for	20.6.2.5371	Incorporated By Reference

CFR Cite/Title	NMAC Cite	Notes
treatment.		
§ 148.4 Procedures for case-by-case extensions to an effective date.	20.6.2.5371	Incorporated By Reference
§ 148.5 Waste analysis.	20.6.2.5371	Incorporated By Reference
40 CFR Part 148 Subpart B - Prohibitions on Injection (all sections)		
§ 148.10 Waste specific prohibitions—solvent wastes	20.6.2.5371	Incorporated By Reference
§ 148.11 Waste specific prohibitions—dioxin-containing wastes.	20.6.2.5371	Incorporated By Reference
§ 148.12 Waste specific prohibitions—California list wastes.	20.6.2.5371	Incorporated By Reference
§ 148.14 Waste specific prohibitions—first third wastes.	20.6.2.5371	Incorporated By Reference
§ 148.15 Waste specific prohibitions—second third wastes.	20.6.2.5371	Incorporated By Reference
§ 148.16 Waste specific prohibitions—third third wastes.	20.6.2.5371	Incorporated By Reference
§ 148.17 Waste specific prohibitions; newly listed wastes.	20.6.2.5371	Incorporated By Reference
§ 148.18 Waste specific prohibitions—newly listed and identified wastes.	20.6.2.5371	Incorporated By Reference

CFR Cite/Title	NMAC Cite	Notes
40 CFR Part 148 Subpart C - Petition Standards and Procedures (all sections)		
§ 148.20 Petitions to allow injection of a waste prohibited under subpart B.	20.6.2.5371	Incorporated By Reference
§ 148.21 Information to be submitted in support of petitions.	20.6.2.5371	Incorporated By Reference
§ 148.22 Requirements for petition submission, review and approval or denial.	20.6.2.5371	Incorporated By Reference
§ 148.23 Review of exemptions granted pursuant to a petition.	20.6.2.5371	Incorporated By Reference
§ 148.24 Termination of approved petition.	20.6.2.5371	Incorporated By Reference

FINAL ORDER

Having considered the administrative record in its entirety, public testimony, and all technical testimony presented; and being otherwise fully advised regarding this matter;

ON BEHALF OF THE WATER QUALITY CONTROL COMMISSION, THE CHAIRMAN OF THE WATER QUALITY CONTROL COMMISSION ORDERS THE ADOPTION OF THE FOLLOWING:

The proposed Water Conservation Rule, with the addition of the amendments offered by the Petitioner in the June 15, 2015, technical testimony of Robert O'Brien with date references to the Code of Federal Regulations removed as ordered by the Commission.

RYAN FLYNN
Chairman – Water Quality Control Commission

NOTICE OF PROCEDURE FOR APPEALLATE REVIEW

Any aggrieved party may seek appellate review in the Court of Appeals, pursuant to NMSA 1978, §74-6-7 and Rules of Appellate Procedure, 12-601 NMRA. Direct appeals from orders shall be taken by filing a notice of appeal with the appellate court clerk within thirty (30) days from the date of the Order.

STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF:
PROPOSED AMENDMENT **WQCC 14-15 (R)**
To 20.6.2.3000 NMAC AND 20.6.2.5000 NMAC

CERTIFICATE OF SERVICE LIST

I hereby certify that a copy of The Water Quality Control Commission's Statement of Reasons and Final Order was served on the following parties on this 31st day of July 2015, via the stated delivery methods below:

Via U.S. Mail and Email:

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