

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION COMMISSION**

**APPLICATION OF THE NEW MEXICO OIL AND GAS ASSOCIATION TO  
REPEAL AND REPLACE TITLE 19, CHAPTER 15, PART 34 OF THE NEW  
MEXICO ADMINISTRATIVE CODE ADDRESSING PRODUCED WATER,  
DRILLING FLUIDS AND OTHER LIQUID OIL FIELD WASTE; AND TO  
AMEND THE DEFINITION OF PRODUCED WATER IN TITLE 19, CHAPTER  
15, PART 2**

**CASE NO. 15239  
ORDER NO. R-13947-B**

**ORDER OF THE COMMISSION**

This case comes before the New Mexico Oil Conservation Commission (“Commission”) on the Application of the New Mexico Oil and Gas Association (“NMOGA”) to (a) repeal Title 19, Chapter 15, Part 34 of the New Mexico Administrative Code (“NMAC”) and replace it with a new rule, and (b) amend the definition of “produced water” in Title 19, Chapter 15, Part 2, NMAC. The Commission, having conducted a hearing on February 13, 2015, in Santa Fe, New Mexico, and having considered the testimony, comments and the record in the case, enters the following findings, conclusions and order.

**FINDINGS AND CONCLUSIONS:**

1. This rulemaking proceeding was initiated on the Application for Rulemaking filed by NMOGA on October 7, 2014.
2. NMOGA’s Application seeks to repeal 19.15.34 NMAC and replace it with a new rule designed to:
  - a. Encourage and promote the recycling and re-use of produced water in a manner that provides reasonable protection to fresh waters, public health, and the environment;
  - b. Clarify the regulatory process governing the recycling, reuse and disposition by use of produced water;
  - c. Allow for the use, permitting and registration of produced water recycling facilities and clarify the regulatory process and restrictions on the use of these facilities;

d. Allow for the use and registration of produced water recycling containments to store, treat and recycle produced water for use in the drilling, completion, production or plugging of oil and gas wells;

e. Prevent any use of recycling containments for the disposal of produced water or other oilfield wastes;

f. Adopt for the proposed produced water recycling containments the applicable siting, design, construction, operation, and closure provisions required by Commission Order No. R-13506-D for multi-well fluid management pits defined in 19.15.17 NMAC, but providing that for produced water recycling containments:

i. The primary liners can be “45-mil LLDPE string reinforced;”

ii. The secondary liners can be “30-mil LLDP string reinforced or equivalent;”

iii. The leak detection systems can consist of “200-mil geonet;” and

iv. Upon closure of the recycling containments, EPA Method 8015M shall be used to test for TPH and EPA Method 8260B shall be used to test for Benzene;

g. Establish the financial assurance required for produced water recycling containments;

h. Adopt provisions for seeking a variance from the requirements of the proposed rule; and

i. Retain the current provisions of 19.15.34.8 through 19.15.34.12 NMAC regulating the transportation of produced water, drilling fluids and other liquid oilfield wastes.

3. NMOGA’s Application also seeks to amend the definition of “produced water” in 19.15.2.7 NMAC to match the definition of “produced water” in Section 70-2-33(K) of the New Mexico Oil and Gas Act (“Act”).

4. Following the filing of NMOGA’s Application, the Commission chair set a public hearing on the Application for February 13, 2015. Public notice was provided as required by the Act and the Commission rules: notice for the hearing was published in a newspaper of general circulation in the state, was published in the New Mexico Register, was posted on the Division’s website and was placed on the Commission’s docket which was then sent to persons who have requested such notice. All notices were conducted within the deadlines under the Commission’s rules. 19.15.3.9 NMAC. (OCC Exhibit 1)

5. Prior to the February 13th hearing, the Commission received the following submissions in addition to NMOGA's Application:

- a. Written comments to the proposed rule jointly submitted by the Environmental Defense Fund and Earthworks;
- b. Written comments to the proposed rule jointly submitted by Earthworks, San Juan Citizens Alliance, New Mexico Interfaith Power and Light, and Sierra Club Rio Grande Chapter;
- c. Written comments to the proposed rule submitted by Environmental Standards, Inc.;
- d. Prehearing statements from NMOGA, the New Mexico Oil Conservation Division ("Division"), and the Independent Petroleum Association of New Mexico; and
- e. Modifications to the proposed rule submitted by NMOGA.

6. The Commission conducted a public hearing on February 13, 2015. All persons wishing to present testimony were allowed to do so. NMOGA and the Division presented sworn technical witnesses who were subject to cross examination by the parties and by the Commission. The Commission provided opportunities during the hearing for public testimony.

7. During the hearing, NMOGA presented a notebook containing 45 exhibits filed with its prehearing statement. NMOGA's final proposed rule incorporating its filed modifications is marked as NMOGA Exhibit 1. NMOGA's proposed amendments to the definition of "produced water" in 19.15.2.7 NMAC are reflected on NMOGA Exhibit 2.

8. NMOGA Exhibit 3 identifies the provisions in existing rule 19.15.34 NMAC that have been carried over into the proposed rule.

9. NMOGA presented three witnesses in support of its Application: James Paul Welch, a produced water management specialist with Halliburton, Inc. who participated in the industry committee that drafted the proposed rule; Charles W. Fiedler, a professional engineer with Gordon Environmental, Inc. in Albuquerque with extensive experience in the design, construction and maintenance of geomembrane liners and leak detection systems for waste storage projects in New Mexico; and Dr. Clay A. Robinson, a specialist in soil science familiar with the U.S. Environmental Protection Agency's testing methods referenced in the proposed rule for analyzing petroleum hydrocarbons in soils.

- a. Mr. Welch provided testimony and presented exhibits during the hearing addressing the nature of produced water, the current impediments to the recycling and reuse of produced water, the need for the produced water recycling

containments allowed under the proposed rule, and the limited purpose and lifespan of the proposed recycling containments. Mr. Welch provided the Commission with a detailed review of the proposed rule and how it incorporates for the applicable siting, design, construction, operation, and closure provisions adopted for multi-well fluid management pits by Commission Order No. R-13506-D. *See* NMOGA Exhibits 1 through 24. Mr. Welch testified that the proposed rule more clearly identifies the regulatory process governing the recycling, reuse and disposition by use of produced water; that the proposed rule will promote the recycling and reuse of produced water; and that it provides protection to fresh water, the public health and the environment.

b. Mr. Fiedler provided testimony and presented exhibits during the hearing addressing the “45-mil LLDPE string reinforced” primary liner, the “30-mil LLDPE string reinforced or equivalent” secondary liner, and the “200-mil geonet” leak detection system for produced water recycling containments under the proposed rule. *See* NMOGA Exhibits 12, 25-34. Mr. Fiedler discussed the nature of these liners and leak detection systems, testified that they contain features and installation attributes conducive to the proposed produced water recycling containments, and that the proposed liners and leak detection systems will provide a protection to fresh water, the public health and the environment for the life expectancy of the produced water recycling containments.

c. Dr. Robinson provided testimony and presented exhibits during the hearing addressing the soil testing “Method” column in Table 1 of the proposed rule. *See* NMOGA Exhibits 19, 35-45. Dr. Robinson testified that EPA Method 8015M is a more appropriate testing method than EPA Method 418.1 for measuring TPH in impacted soils, and that the phrase “(GRO+DRO+MRO)” under TPH in the “Constituent” column of Table 1 provides operators and laboratories with an understandable and appropriate carbon range for the required testing. Dr. Robinson further testified that EPA Method 8260B is a more appropriate testing method than 8015M for measuring Benzene in impacted soils, and that the same testing method should be utilized for measuring BTEX and Benzene in Table 1. Mr. Robinson confirmed that the soil testing methods in Table 1 of the proposed rule are appropriate for testing any impacted soils beneath the proposed produced water recycling containments and that they are feasible for operators and laboratories to understand and implement.

10. The Division presented Brandon Powell, a compliance specialist with the Aztec district office of the Oil Conservation Division. Mr. Powell testified that he participated in the development of the proposed rule and has reviewed the final proposed rule on behalf of the Division. Mr. Powell testified the Division is prepared to develop the forms necessary to implement the proposed rule, including the form necessary to register produced water recycling containments upon certification of compliance with all requirements of the proposed rule. Mr. Powell further testified that the proposed soil testing methods in Table 1 of the proposed rule are appropriate, the financial assurance provisions in the proposed rule are consistent with other Division rules, and that the

proposed rule is administratively feasible. Mr. Powell confirmed that the Division fully supports the proposed rule, as well as the proposed amendments to the definition of "produced water" reflected in NMOGA Exhibit 2.

11. The Commission also received during the hearing comments from individuals and organizations as reflected in the hearing transcript. Among the witnesses were Brent Halldorson from the Texas Recycling Association, Pete Dronkers from the Earthworks/Oil and Gas Accountability Project, and Michael Newell, an attorney representing landowners.

12. Immediately following the taking of testimony and comments at the February 13th hearing, the Commission closed the record and deliberated in open session.

13. There is a need to clarify the requirements and regulatory process governing the recycling, reuse and disposition by use of produced water.

14. There is a need for an alternative storage device to promote and encourage the recycling and reuse of produced water.

15. The Commission finds that providing notice of the proposed recycling containment to the surface owner is reasonable and amended Section 19.15.34.10 to require a copy of the registration be provided to the surface owner at the time it is submitted to the Division.

16. The Commission has authority to adopt regulations to carry out the purposes of the Oil and Gas Act, Chapter 70, NMSA 1978 Article 2 (the Act). *See* NMSA 1978, §70-2-11 and 70-2-12(B). Specifically, the Act allows the adoption of rules "to regulate the disposition of water produced or used in connection with the drilling for or producing of oil or gas or both and to direct surface or subsurface disposal of the water", NMSA 1978, §70-2-12(B)(15).

17. The Commission has authority to prevent waste, protect correlative rights and to regulate the recycling, reuse, disposition by use and disposal of produced water in a manner that will afford reasonable protection of fresh water, the public health and the environment. *See* NMSA 1978, §70-2-12(B)(15) and (21). *See also* NMSA 1978, §70-2-12.1.

18. The proposed rule clarifies the requirements and regulatory process governing the recycling, reuse and disposition by use of produced water in a manner that is consistent with the Division's current practices.

19. The requirements set forth in Section 19.15.34.8 of the proposed rule governing the disposition by use, recycling or disposal of produced water incorporate current Division practices; will afford protection of fresh water, the public health and the environment; and should be adopted.

20. The requirements and restrictions for produced water recycling facilities in Section 19.15.34.9 of the proposed rule incorporate current Division practices, are reasonable and feasible to implement, will encourage the recycling and reuse of produced water, and should be adopted.

21. The registration process for produced water recycling containments in Section 19.15.34.10 of the proposed rule is similar to that utilized for below grade tanks under 19.15.17 NMAC. In addition, the proposed rule contains strong and immediate enforcement provisions in Part 34.21. With modifications to the proposed language to ensure that Form C-147 requires certification that all requirements of the proposed rule have been met, the proposed registration process for produced water recycling containments is reasonable, feasible to implement and should be adopted.

22. The proposed restrictions on the use and lifespan of produced water recycling containments in Section 19.15.34.10 of the proposed rule are feasible to implement; will promote the recycling and reuse of produced water; will afford protection of fresh water, the public health and the environment; and should be adopted.

23. The proposed produced water recycling containments are similar in nature to multi-well fluid management pits allowed under 19.15.17 NMAC but provide more flexibility with respect to the source of the produced water and the lifespan of the facility. Experience has shown that this added flexibility is needed to promote the recycling and reuse of produced water.

24. The siting, design, construction, operation and closure requirements for multi-well fluid management pits under 19.15.17 NMAC were the products of extensive testimony and deliberation by the Commission in conjunction with the issuance of Commission Order No. R-13506-D in June of 2013. These requirements have proven protective of fresh water, the public health and the environment.

25. The Commission finds that the provisions governing multi-well fluid management pits adopted in Rule 19.15.17 NMAC under Commission Order No. R-13506-D can be considered as guidance in establishing the siting, design, construction, operation and closure requirements for the proposed produced water recycling containments.

26. NMOGA Exhibits 11 through 22 identify the provisions in 19.15.17 NMAC, adopted under Commission Order No. R-13506-D, that form the basis for the siting, design, construction, operation and closure requirements for the proposed produced water recycling containments.

27. With certain modifications to the proposed language discussed during the Commission deliberations, the siting, design, construction, operation and closure requirements set forth in Sections 19.15.34.11 through 19.15.34.14 of the proposed rule will afford reasonable protection of fresh water, the public health and the environment; will promote the recycling and reuse of produced water; and should be adopted.

28. NMOGA Exhibit 23 identifies the provisions of 19.15.36.11 NMAC that formed the basis for the financial assurance provisions in Section 19.15.34.15 of the proposed rule. These financial assurance provisions are consistent with Division practice, are reasonable and feasible to implement, and should be adopted.

29. NMOGA Exhibit 24 identifies the variance provisions in 19.15.17 NMAC that formed the basis for comparable provisions in Section 19.15.34.16 of the proposed rule. With certain modifications to the proposed language discussed during the Commission deliberations, these provisions are consistent with Division practice, are reasonable and feasible to implement, and should be adopted.

30. The Commission concludes that the Commission has jurisdiction over the subject matter of this proceeding, that the Commission has the authority to promulgate the proposed rule changes and that the proper notice and procedures for a Commission rulemaking have been followed.

31. The Commission concludes that the proposed rule, with the modifications discussed during the Commission deliberations, is reasonable and feasible to implement; will afford protection of fresh water, the public health and the environment; will promote the recycling and reuse of produced water; will neither cause waste nor impair correlative rights; and should be adopted.

32. The Commission concludes that current rule 19.15.34 should be repealed and replaced with a new rule in the form attached hereto as **Attachment A** and the rule change is supported by substantial evidence in the record.

33. The proposed amendments to the definition of “produced water” in 19.15.2 NMAC will avoid confusion over the meaning of produced water and match the definition of “produced water” in Section 70-2-33(K) of the New Mexico Oil and Gas Act.

34. The Commission concludes that the definition of “produced water” in 19.15.2.7 NMAC should be amended as reflected on **Attachment B** and the rule change is supported by substantial evidence in the record.

**IT IS THEREFORE ORDERED THAT:**

A. Title 19, Chapter 15, Part 34 NMAC, as adopted on December 1, 2008, is hereby **REPEALED** and **REPLACED** by Title 19, Chapter 15, Part 34 NMAC set forth in **Attachment A** to this Order and Attachment A is hereby **ADOPTED** as Title 19, Chapter 15, Part 34 NMAC.

B. The Commission **ADOPTS** the amendments to the definition of “produced water” in 19.15.2 NMAC as reflected on **Attachment B** to this Order, effective as of the date of publication thereof in the New Mexico Register.

C. Division staff is instructed to file the rule changes with the State Records Administrator and secure prompt publication of the rule changes in the New Mexico Register.

D. The Division is instructed to modify and create the forms necessary to implement this new rule.

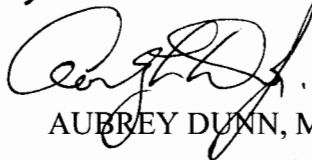
E. The Commission retains jurisdiction of this matter for entry of such further orders as may be necessary.

DONE at Santa Fe; New Mexico on the 12<sup>th</sup> day of March, 2015.

**STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION**



ROBERT BALCH, Member



AUBREY DUNN, Member



DAVID R. CATANACH, Chair

S E A L

**TITLE 19        NATURAL RESOURCES AND WILDLIFE**  
**CHAPTER 15    OIL AND GAS**  
**PART 34        PRODUCED WATER, DRILLING FLUIDS AND LIQUID OIL FIELD WASTE**

**19.15.34.1        ISSUING AGENCY:** Energy, Minerals and Natural Resources Department, Oil Conservation Commission.

[19.15.34.1 NMAC - Rp, 19.15.34.1 NMAC, 3/31/15]

**19.15.34.2        SCOPE:** 19.15.34 NMAC applies to the transportation, disposal, recycling, re-use or the direct surface or subsurface disposition by use of water produced or used in connection with the development or production of oil or gas or both; in road construction or maintenance, or other construction; in the generation of electricity or in other industrial processes. 19.15.34 NMAC also applies to the transportation of drilling fluids and liquid oil field waste.

[19.15.34.2 NMAC - Rp, 19.15.34.2 NMAC, 3/31/15]

**19.15.34.3        STATUTORY AUTHORITY:** 19.15.34 NMAC is adopted pursuant to the Oil and Gas Act, Paragraph (15) of Section 70-2-12(B) NMSA 1978, which authorizes the division to regulate the disposition of water produced or used in connection with the drilling for or producing of oil and gas or both and Paragraph (21) of Section 70-2-12(B) NMSA 1978 which authorizes the regulation of the disposition of nondomestic wastes from the exploration, development, production or storage of crude oil or natural gas.

[19.15.34.3 NMAC - Rp, 19.15.34.3 NMAC, 3/31/15]

**19.15.34.4        DURATION:** Permanent.

[19.15.34.4 NMAC - Rp, 19.15.34.4 NMAC, 3/31/15]

**19.15.34.5        EFFECTIVE DATE:** March 31, 2015, unless a later date is cited at the end of a section.

[19.15.34.5 NMAC - Rp, 19.15.34.5 NMAC, 3/31/15]

**19.15.34.6        OBJECTIVE:** To encourage the recycling, re-use or disposition of produced water by use in a manner that will afford reasonable protection against contamination of fresh water and establish procedures by which persons may transport and dispose of produced water, drilling fluids and other liquid oil field waste.

[19.15.34.6 NMAC - Rp, 19.15.34.6 NMAC, 3/31/15]

**19.15.34.7        DEFINITIONS:** These definitions apply to 19.15.34.2 NMAC through 19.15.34.21 NMAC. See 19.15.2.7 NMAC for additional definitions.

A. "Recycling facility" is a stationary or portable facility used exclusively for the treatment, re-use or recycling of produced water intended for disposition by use. A recycling facility does not include oilfield equipment such as separators, heater treaters and scrubbers in which produced water may be used.

B. "Recycling containment" is a storage containment which incorporates a synthetic liner as the primary and secondary containment device and is used solely in conjunction with a recycling facility for the storage, treatment or recycling of produced water only for the purpose of drilling, completion, production or plugging of wells used in connection with the development of oil or gas or both.

C. "Treatment" refers to the reconditioning of produced water to a reusable form and may include mechanical and chemical processes.

[19.15.34.7 NMAC - N, 3/31/15]

**19.15.34.8        REQUIREMENTS FOR DISPOSITION BY USE, RECYCLING FACILITIES OR DISPOSAL OF PRODUCED WATER:**

A. Recycling or disposition by use of produced water.

(1) No permit or registration is required from the division for the disposition by use of produced water for drilling, completion, producing, secondary recovery, pressure maintenance or plugging of wells pursuant to 19.15.34 NMAC.

(2) Any other disposition by use of produced water requires prior approval by the appropriate division district office on form C-147. Approval requirements will be determined by the district office based upon the proposed use.

(3) Research using produced water is to be encouraged through pilot projects approved by the appropriate division district office.

(4) All produced water for recycling or disposition by use shall be handled and stored in a manner that will afford reasonable protection against contamination of fresh water.

(5) All operations in which produced water is used shall be conducted in a manner consistent with hydrogen sulfide gas provisions in 19.15.11 NMAC or NORM provisions in 19.15.35 NMAC, as applicable.

(6) All releases from the recycling and re-use of produced water shall be handled in accordance with 19.15.29 NMAC.

**B.** Disposal of produced water. Persons disposing of produced water shall use one of the following disposition methods:

(1) disposition in a manner that does not constitute a hazard to fresh water, public health, or the environment; delivery to a permitted salt water disposal well or facility, a surface waste management facility or permanent pit permitted pursuant to 19.15.17 NMAC; or to a drill site for use in drilling fluid; or

(2) use in accordance with 19.15.34 NMAC or other authorization from the division.  
[19.15.34.8 NMAC - Rp, 19.15.34.12 NMAC, 3/31/15]

#### **19.15.34.9 RECYCLING FACILITIES:**

**A.** Except where recycling facilities are part of a permitted operation for the drilling, completing, producing or plugging of oil and gas wells, all recycling facilities shall be permitted or registered with the division district office. Division form C-147 shall be used for registration, financial assurance, or for a permit if not associated with the drilling, completing, producing and plugging of oil and gas wells. All operators or owners of the facility shall be named in the form C-147.

**B.** In addition to the other applicable rule requirements, registration of a recycling facility is required in the following circumstances:

(1) when the recycling facility is an addition to a surface waste management facility permitted under 19.15.36 NMAC;

(2) when the recycling facility is an addition to the secondary recovery of oil and gas, enhanced oil recovery of oil and gas, or pressure maintenance projects permitted under 19.15.26 NMAC;

(3) when the recycling facility is an addition to a salt water disposal well permitted under 19.15.26 NMAC;

(4) when the recycling facility is an addition to pits permitted or below-grade tanks registered in accordance with 19.15.17 NMAC;

(5) when the recycling facility is used with a closed loop system that only delivers fluid for drilling or completion purposes;

(6) when the recycling facility is used with dedicated above ground, unlined, hard-sided tanks used in accordance with the manufacturer's standards that are externally visually inspected weekly when holding fluids and a log is kept of the inspections made available to the division upon request; or

(7) when the recycling facility is used with a recycling containment registered in accordance with 19.15.34 NMAC.

**C.** Recycling facilities not identified in Subsection B of 19.15.34.9 are required to be permitted. The appropriate division district office will determine approval requirements based upon the proposed use.

**D.** Recycling facilities may be located either onsite or offsite of a well drilling location and may serve a number of wells.

**E.** The operator of a recycling facility shall keep accurate records and shall report monthly to the division the total volume of water received for recycling, with the amount of fresh water received listed separately, and the total volume of water leaving the facility for disposition by use on form C-148.

**F.** The operator of a recycling facility shall maintain accurate records that identify the sources and disposition of all recycled water that shall be made available for review by the division upon request.

**G.** Recycling facilities may not be used for the disposal of produced water.

**H.** The operator shall remove all fluids within 60 days from the date the operator ceases operations. The division district office may grant an extension for the removal of all fluids not to exceed two months.  
[19.15.34.9 NMAC - N, 3/31/15]

#### **19.15.34.10 RECYCLING CONTAINMENTS:**

**A.** All recycling containments shall be registered on form C-147. All operators or owners shall be named in the form C-147. The C-147 form shall require documentation that the containment will meet the

requirements of 19.15.34.11 through 19.15.34.15 NMAC. At the time the C-147 is submitted to the division, a copy shall be provided to the surface owner.

**B.** Recycling containments may hold produced water for use in connection with drilling, completion, producing or processing oil or gas or both. Such fluids may include fresh water, brackish water, recycled and treated water, fluids added to water to facilitate well drilling or completion, water produced with oil and gas, flowback from operations, water generated by an oil or gas processing facility or other waters that are gathered for well drilling or completion but may not include any hazardous waste.

**C.** Registered recycling containments may be operated for five years from the date on which the registration is filed with the division. The operator may extend the allowed time on an annual basis thereafter with division approval if, 30 days prior to the registration expiration, the operator files a form C-147 with an attached summary showing all monthly inspections at the containment, including the monitoring of the leak detection system, showing the containment's integrity has not been compromised.

**D.** Recycling containments may not be used for the disposal of produced water or other oilfield wastes.

[19.15.34.10 NMAC - N, 3/31/15]

**19.15.34.11 SITING REQUIREMENTS FOR RECYCLING CONTAINMENTS:**

- A.** An operator shall not locate a recycling containment:
- (1) where ground water is less than 50 feet below the bottom of the containment;
  - (2) within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
  - (3) within 1000 feet of a permanent residence, school, hospital, institution or church in existence at the time of the initial registration;
  - (4) within 500 feet of a spring or fresh water well used for domestic or stock watering purposes in existence at the time of the initial registration;
  - (5) within incorporated municipal boundaries or within a defined municipal fresh water well field covered by a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978, as amended, unless the municipality specifically approves the recycling containment in writing;
  - (6) within 500 feet of a wetland;
  - (7) within an area overlying a subsurface mine;
  - (8) within an unstable area unless the operator demonstrates that it has incorporated engineering measures into the design to ensure that the containment's integrity is not compromised; or
  - (9) within a 100-year floodplain.
- B.** In the absence of site-specific ground water data, the operator may use data generated by models, cathodic well lithology, published information or other tools as approved by the division district office.
- C.** An operator shall not locate material excavated during construction:
- (1) within 100 feet of a continuously flowing watercourse or significant watercourse;
  - (2) within 200 feet from a lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
  - (3) within 100 feet of a wetland; or
  - (4) within a 100-year floodplain.

[19.15.34.11 NMAC - N, 3/31/15]

**19.15.34.12 DESIGN AND CONSTRUCTION SPECIFICATIONS FOR A RECYCLING CONTAINMENT:**

**A.** An operator shall design and construct a recycling containment in accordance with the following specifications.

(1) The operator shall design and construct a recycling containment to ensure the confinement of produced water, to prevent releases and to prevent overtopping due to wave action or rainfall.

(2) A recycling containment shall have a properly constructed foundation and interior slopes consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear. Geotextile is required under the liner when needed to reduce localized stress-strain or protuberances that otherwise may compromise the liner's integrity. The operator shall construct the containment in a levee with an inside grade no steeper than two horizontal feet to one vertical foot (2H:1V). The levee shall have an outside grade no steeper than three horizontal feet to one vertical foot (3H:1V). The top of the levee shall be wide enough to install an anchor trench and provide adequate room for inspection and maintenance.

(3) Each recycling containment shall incorporate, at a minimum, a primary (upper) liner and a secondary (lower) liner with a leak detection system appropriate to the site's conditions. The edges of all liners shall be anchored in the bottom of a compacted earth-filled trench. The anchor trench shall be at least 18 inches deep.

(4) All primary (upper) liners in a recycling containment shall be geomembrane liners composed of an impervious, synthetic material that is resistant to ultraviolet light, petroleum hydrocarbons, salts and acidic and alkaline solutions. All primary liners shall be 30-mil flexible PVC, 45-mil LLDPE string reinforced or 60-mil HDPE liners. Secondary liners shall be 30-mil LLDPE string reinforced or equivalent with a hydraulic conductivity no greater than  $1 \times 10^{-9}$  cm/sec. Liner compatibility shall meet or exceed the EPA SW-846 method 9090A or subsequent relevant publications.

(5) The operator of a recycling containment shall minimize liner seams and orient them up and down, not across, a slope of the levee. Factory welded seams shall be used where possible. The operator shall ensure field seams in geosynthetic material are thermally seamed. Prior to field seaming, the operator shall overlap liners four to six inches. The operator shall minimize the number of field seams and corners and irregularly shaped areas. There shall be no horizontal seams within five feet of the slope's toe. Qualified personnel shall perform field welding and testing.

(6) At a point of discharge into or suction from the recycling containment, the operator shall insure that the liner is protected from excessive hydrostatic force or mechanical damage. External discharge or suction lines shall not penetrate the liner.

(7) The operator of a recycling containment shall place a leak detection system between the upper and lower geomembrane liners that shall consist of 200-mil geonet or two feet of compacted soil with a saturated hydraulic conductivity of  $1 \times 10^{-5}$  cm/sec or greater to facilitate drainage. The leak detection system shall consist of a properly designed drainage and collection and removal system placed above the lower geomembrane liner in depressions and sloped to facilitate the earliest possible leak detection.

(8) The operator of a recycling containment shall design the containment to prevent run-on of surface water. The containment shall be surrounded by a berm, ditch or other diversion to prevent run-on of surface water.

**B.** Stockpiling of topsoil. Prior to constructing containment, the operator shall strip and stockpile the topsoil for use as the final cover or fill at the time of closure.

**C.** Signs. The operator shall post an upright sign no less than 12 inches by 24 inches with lettering not less than two inches in height in a conspicuous place on the fence surrounding the containment. The operator shall post the sign in a manner and location such that a person can easily read the legend. The sign shall provide the following information: the operator's name, the location of the site by quarter-quarter or unit letter, section, township and range, and emergency telephone numbers.

**D.** Fencing.

(1) The operator shall fence or enclose a recycling containment in a manner that deters unauthorized wildlife and human access and shall maintain the fences in good repair. The operator shall ensure that all gates associated with the fence are closed and locked when responsible personnel are not onsite.

(2) Recycling containments shall be fenced with a four foot fence that has at least four strands of barbed wire evenly spaced in the interval between one foot and four feet above ground level.

**E.** Netting. The operator shall ensure that a recycling containment is screened, netted or otherwise protective of wildlife, including migratory birds. The operator shall on a monthly basis inspect for and, within 30 days of discovery, report the discovery of dead migratory birds or other wildlife to the appropriate wildlife agency and to the division district office in order to facilitate assessment and implementation of measures to prevent incidents from reoccurring.

[19.15.34.12 NMAC - N, 3/31/15]

#### **19.15.34.13 OPERATIONAL REQUIREMENTS FOR RECYCLING CONTAINMENTS:**

**A.** The operator shall inspect the recycling containment and associated leak detection systems weekly while it contains fluids. The operator shall maintain a current log of such inspections and make the log available for review by the division upon request.

**B.** The operator shall maintain and operate a recycling containment in accordance with the following requirements.

(1) The operator shall remove any visible layer of oil from the surface of the recycling containment.

(2) The operator shall maintain at least three feet of freeboard at each containment.

(3) The injection or withdrawal of fluids from the containment shall be accomplished through a header, diverter or other hardware that prevents damage to the liner by erosion, fluid jets or impact from installation and removal of hoses or pipes.

(4) If the containment's primary liner is compromised above the fluid's surface, the operator shall repair the damage or initiate replacement of the primary liner within 48 hours of discovery or seek an extension of time from the division district office.

(5) If the primary liner is compromised below the fluid's surface, the operator shall remove all fluid above the damage or leak within 48 hours of discovery, notify the division district office and repair the damage or replace the primary liner.

(6) The containment shall be operated to prevent the collection of surface water run-on.

(7) The operator shall install, or maintain on site, an oil absorbent boom or other device to contain an unanticipated release.

C. A recycling containment shall be deemed to have ceased operations if less than 20% of the total fluid capacity is used every six months following the first withdrawal of produced water for use. The operator must report cessation of operations to the appropriate division district office. The appropriate division district office may grant an extension to this determination of cessation of operations not to exceed six months.  
[19.15.34.13 NMAC - N, 3/31/15]

#### **19.15.34.14 CLOSURE AND SITE RECLAMATION REQUIREMENTS FOR RECYCLING CONTAINMENTS:**

A. Once the operator has ceased operations, the operator shall remove all fluids within 60 days and close the containment within six months from the date the operator ceases operations from the containment for use. The division district office may grant an extension for the removal of all fluids not to exceed two months. The division district office may grant an extension to close the containment not to exceed six months. If the operator wants to use the containment for a purpose other than recycling then the operator must have that use approved or permitted by the division in accordance with the appropriate rules.

B. The operator shall close a recycling containment by first removing all fluids, contents and synthetic liners and transferring these materials to a division approved facility.

C. The operator shall test the soils beneath the containment for contamination with a five-point composite sample which includes stained or wet soils, if any, and that sample shall be analyzed for the constituents listed in Table I below.

(1) If any contaminant concentration is higher than the parameters listed in Table I, the division may require additional delineation upon review of the results and the operator must receive approval before proceeding with closure.

(2) If all contaminant concentrations are less than or equal to the parameters listed in Table I, then the operator can proceed to backfill with non-waste containing, uncontaminated, earthen material.

D. Within 60 days of closure completion, the operator shall submit a closure report on form C-147, including required attachments, to document all closure activities including sampling results and the details on any backfilling, capping or covering, where applicable. The closure report shall certify that all information in the report and attachments is correct and that the operator has complied with all applicable closure requirements and conditions specified in division rules or directives.

E. Once the operator has closed the recycling containment, the operator shall reclaim the containment's location to a safe and stable condition that blends with the surrounding undisturbed area. Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area shall then be reseeded in the first favorable growing season following closure of a recycling containment. The operator shall substantially restore the impacted surface area to the condition that existed prior to the construction of the recycling containment.

F. Reclamation of all disturbed areas no longer in use shall be considered complete when all ground surface disturbing activities at the site have been completed, and a uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds.

G. The re-vegetation and reclamation obligations imposed by federal, state trust land or tribal agencies on lands managed by those agencies shall supersede these provisions and govern the obligations of any operator subject to those provisions, provided that the other requirements provide equal or better protection of fresh water, human health and the environment.

H. The operator shall notify the division when reclamation and re-vegetation are complete.

Table I Closure Criteria for Recycling Containments			
Depth below bottom of containment to groundwater less than 10,000 mg/l TDS	Constituent	Method*	Limit**
51 feet - 100 feet	Chloride	EPA 300.0	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
> 100 feet	Chloride	EPA 300.0	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

\* Or other test methods approved by the division.

\*\* Numerical limits or natural background level, whichever is greater.

[19.15.34.14 NMAC - N, 3/31/15]

#### **19.15.34.15 FINANCIAL ASSURANCE REQUIREMENTS FOR RECYCLING CONTAINMENTS:**

##### **A. Financial assurance.**

(1) Containment operators without existing financial assurance pursuant to 19.15.8 NMAC shall furnish financial assurance acceptable to the division in the amount of the recycling containment's estimated closure cost or \$25,000, whichever is greater.

(2) Containment operators providing the division with an existing financial assurance pursuant to 19.15.8 NMAC do not require additional financial assurance. These containments are limited to only the wells owned or operated by the owners of the containment. Containments delivering fluids to wells not owned or operated by the owners or operators of the containment must provide financial assurance pursuant to Paragraph (1) of Subsection A of 19.15.34.15 NMAC.

**B. Terms of financial assurance.** The financial assurance shall be on division-prescribed forms, payable to the state of New Mexico and conditioned upon the proper operation and site closure of the recycling containment as required by New Mexico statutes and division rules. The operator shall notify the division of any material change affecting the financial assurance within 30 days of discovery or notice of such change.

**C. Forfeiture of financial assurance.** The division shall give the operator 20 days written notice and an opportunity for a hearing prior to forfeiting any financial assurance.

**D. Forms of financial assurance.** The division may accept the following forms of financial assurance.

(1) Surety bonds. A surety bond shall be executed by the applicant and a corporate surety licensed to do business in the state, and shall not be subject to cancellation.

(2) Letters of credit. A letter of credit shall be issued by a bank organized or authorized to do commercial banking business in the United States, shall be irrevocable for a term of not less than five years unless the applicant shows good cause for a shorter time period and shall provide for automatic renewal for successive, like

terms upon expiration unless the issuer has notified the division in writing of non-renewal at least 90 days before its expiration date. The letter of credit shall be payable to the state of New Mexico in part or in full upon receipt from the director or the director's authorized representative of demand for payment accompanied by a notice of forfeiture. Demand may be issued 30 days prior to expiration of the letter of credit if the operator has not provided replacement financial assurance by that time.

(3) Cash accounts. An applicant shall provide financial assurance in the form of a federally insured or equivalently protected cash account or accounts in a financial institution, provided that the operator and the financial institution shall execute as to each such account a collateral assignment of the account to the division, which shall provide that only the division may authorize withdrawals from the account. In the event of forfeiture, the division may direct payment of all or part of the balance of such cash account (excluding interest accrued on the account) to itself or its designee for the recycling facility's closure.

E. Replacement of financial assurance.

(1) The division may allow an operator to replace existing forms of financial assurance with other forms of financial assurance that provide equal coverage prior to the expiration of the existing financial assurance.

(2) The division shall not release existing financial assurance until the operator has submitted, and the division has approved, an acceptable replacement.

F. Review of adequacy of financial assurance. The division may at any time not less than five years after initial acceptance of financial assurance for a recycling containment, initiate a review of such financial assurance's adequacy. Additionally, whenever the division determines that a recycling containment has not achieved the closure standards specified in 19.15.34.14 NMAC, the division may review the adequacy of the recycling containment's financial assurance, without regard to the date of its last review. Upon determination, after notice to the operator and an opportunity for a hearing, that the financial assurance is not adequate to cover the reasonable and probable cost of a recycling containment's closure and post closure monitoring, the division may require the operator to furnish additional financial assurance.

G. The division shall release a financial assurance upon the operator's or surety's written request if the recycling containment has been closed and the location remediated in accordance with 19.15.34 NMAC or has been covered by another financial assurance approved by the division. The division shall not approve a request for change of operator of a recycling containment until the new operator has the required division approved financial assurance.

H. The division may use funds in the oil and gas reclamation fund to remediate the impacts of a recycling containment if deemed necessary by the division director in the event of an emergency or insufficient financial assurance. In either case, the costs expended by the division may be recovered from the operator pursuant to Section 70-2-38 NMSA 1978. The operator is responsible for all costs of remediation of the recycling containment even if the costs exceed the financial assurance.

[19.15.34.15 NMAC - N, 3/31/15]

#### **19.15.34.16 VARIANCES:**

A. An operator may file a written request for a variance from any requirement of these rules with the division district office. The request for variance shall include:

(1) a detailed statement explaining the need for a variance; and

(2) a detailed written demonstration that the variance will provide equal or better protection of fresh water, public health and the environment.

B. The division district office shall approve or deny the variance within 60 days of receipt. If the division district office denies the variance, it shall provide the operator with the reasons for denial by certified mail, return receipt requested.

C. If a request for variance from the requirements of this rule is not approved or denied within 60 days of the date the request for variance is received by the district office, the operator may seek a hearing pursuant to 19.15.4 NMAC.

D. If the operator requests a hearing pursuant to 19.15.4 NMAC within 60 days after receipt of notice, the division shall set the matter for hearing, with notice to the operator and the appropriate division district office.

E. The operator shall provide notice of the hearing on the request for variance to the surface owner of the site by certified mail, return receipt requested, at least 20 days prior to the date of hearing.

F. Variances must receive division approval prior to implementation.

[19.15.34.16 NMAC - N, 3/31/15]

**19.15.34.17 TRANSPORTATION OF PRODUCED WATER, DRILLING FLUIDS AND LIQUID OIL FIELD WASTE:**

**A.** A person shall not transport produced water, drilling fluids or liquid oil field waste, including drilling fluids and residual liquids in liquid oil field equipment, except for small samples removed for analysis, by motor vehicle from a lease, central tank battery or other facility without an approved form C-133. The transporter shall maintain a copy of the approved form C-133 in the transporting vehicle.

**B.** A person may apply for authorization to move produced water, drilling fluids or liquid oil field waste by motor vehicle by filing a complete form C-133 with the division's Santa Fe office. Authorization is granted upon the division's approval of form C-133.

**C.** An owner or operator shall not permit produced water, drilling fluids or liquid oil field waste to be removed from its leases or field facilities, except for small samples removed for analysis, by motor vehicle except by a person possessing an approved form C-133. The division shall post a list of currently approved form C-133s, authorization to move liquid waste, on its website. The list of form C-133s posted on the division's website on the first business day of each month shall be deemed notice of valid form C-133s for the remainder of the month.

[19.15.34.17 NMAC - Rp, 19.15.34.8 NMAC, 3/31/15]

**19.15.34.18 DENIAL OF FORM C-133:** The division may deny approval of a form C-133 if:

**A.** the applicant is a corporation or limited liability company, and is not registered with the secretary of state to do business in New Mexico;

**B.** the applicant is a limited partnership, and is not registered with the New Mexico secretary of state to do business in New Mexico;

**C.** the applicant does not possess a warrant for transportation under the state registration system the public regulation commission administers, if it is required to have such a permit under the applicable statutes or rules; or

**D.** the applicant or officer, director or partner in the applicant, or a person with an interest in the applicant exceeding twenty-five percent (25%), is or was within the past five years an officer, director or partner in the applicant, or a person with an interest in the applicant exceeding twenty-five percent (25%) in another entity that possesses or has possessed an approved form C-133 that has been cancelled or suspended, has a history of violating division or other state or federal environmental laws; is subject to a commission or division order, issued after notice and hearing, finding such entity to be in violation of an order requiring corrective action; or has a penalty assessment for violation of division or commission rules or orders that is unpaid more than 70 days after issuance of the order assessing the penalty.

[19.15.34.18 NMAC - Rp, 19.15.34.9 NMAC, 3/31/15]

**19.15.34.19 CANCELLATION OR SUSPENSION OF AUTHORIZATION TO MOVE LIQUID**

**WASTES:** A transporter's vehicular movement or disposition of produced water, drilling fluids or liquid oil field waste in a manner contrary to division rules is ground for denial of approval of form C-133 in addition to those specified in Subsection D of 19.15.34.18 NMAC. It is also cause, after notice and an opportunity for hearing, for the division to cancel or suspend a transporter's authorization to move liquid wastes.

[19.15.34.19 NMAC - Rp, 19.15.34.10 NMAC, 3/31/15]

**19.15.34.20 DISPOSITION OF PRODUCED WATER AND OTHER OIL FIELD WASTE:** Except as authorized by 19.15.17 NMAC, 19.15.26.8 NMAC, 19.15.30 NMAC, 19.15.34 NMAC or 19.15.36 NMAC, persons, including transporters, shall not dispose of produced water or other oil field waste:

**A.** on or below the surface of the ground, in a pit or in a pond, lake, depression or watercourse;

**B.** in another place or in a manner that may constitute a hazard to fresh water, public health, or the environment; or

**C.** in a permitted pit or registered or permitted surface waste management facility without permission of the owner or operator of the pit or facility.

[19.15.34.20 NMAC - Rp, 19.15.34.11 NMAC, 3/31/15]

**19.15.34.21 ENFORCEMENT:**

**A.** The operator of a recycling facility or recycling containment shall comply with all the requirements of 19.15.34 NMAC.

**B.** If the division determines that the registration of a recycling facility or recycling containment or that operations at a recycling facility or recycling containment violate the requirements of 19.15.34 NMAC, the division district office shall notify the operator in writing. If the violation threatens contamination of fresh water, public health, or the environment, the notice of violation shall be signed by the director, the operator shall immediately cease all operations at the recycling facility or containment and the director may require the operator to remove all fluids, if any, in the recycling facility or containment by a date determined by the director.

**C.** The operator shall have 60 days from the date it is notified of a violation to remove the recycling facility or recycling containment in accordance with 19.15.34 NMAC unless the violation is corrected or an agreed compliance order providing for corrective action is entered with the division. The operator may request an immediate stay of the division's order as part of an application for review of the notice of violation filed by the operator.

**D.** The provisions of 19.15.4 NMAC applicable to adjudicatory proceedings shall apply to these enforcement proceedings unless altered or amended by 19.15.5.10 NMAC or 19.15.34 NMAC.

**E.** The division may enter into an agreed compliance order prior to or after the filing of an application for an administrative compliance proceeding. An agreed compliance order shall have the same force and effect as a compliance order issued after an adjudicatory hearing.

**F.** After a notice of violation that threatens contamination of fresh water, public health, or the environment is issued, until the operator obtains an agreed compliance order, performs appropriate corrective action or is granted a stay, the division may not approve any permits for the operator.

[19.15.34.21 NMAC - N, 3/31/15]

#### **HISTORY of 19.15.34 NMAC:**

**History of Repealed Material:** 19.15.2 NMAC, General Operating Practices, Wastes Arising from Exploration and Production (filed 04/21/2004) repealed 12/1/2008.

19.15.34 NMAC, Produced Water (filed 11/17/2008) repealed 3/31/2015.

#### **NMAC History:**

Those applicable portions of 19.15.2 NMAC, General Operating Practices, Wastes Arising from Exploration and Production (Sections 51 and 52) (filed 01/24/2007) were replaced by 19.15.34 NMAC, Produced Water, effective 12/1/2008.

19.15.34 NMAC, Produced Water (filed 11/17/2008) was repealed and replaced by 19.15.34 NMAC, Produced Water, Drilling Fluids and Liquid Oil Field Waste, effective 3/31/2015.

03/30/16 11:26

Explanatory paragraph: This is an amendment to 19.15.2 NMAC, Section 7, effective March 31, 2015. Subsections A through O and Subsections Q through W were not published as there were no changes.

**19.15.2.7 DEFINITIONS:** These definitions apply to 19.15.2 NMAC through 19.15.39 NMAC.

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**P.** Definitions beginning with the letter "P".

(1) "Penalized unit" means a proration unit to which, because of an excessive gas-oil ratio, the division assigns an allowable that is less than top proration unit allowable for the pool in which it is located and also less than the ability of the well or wells on the unit to produce.

(2) "Person" means an individual or entity including partnerships, corporations, associations, responsible business or association agents or officers, the state or a political subdivision of the state or an agency, department or instrumentality of the United States and of its officers, agents or employees.

(3) "Pit" means a surface or sub-surface impoundment, man-made or natural depression or diked area on the surface. Excluded from this definition are berms constructed around tanks or other facilities solely for safety, secondary containment and storm water or run-on control.

(4) "Playa lake" means a level or nearly level area that occupies the lowest part of a completely closed basin and that is covered with water at irregular intervals, forming a temporary lake.

(5) "Pool" means an underground reservoir containing a common accumulation of oil or gas. Each zone of a general structure, which zone is completely separated from other zones in the structure, is covered by the word pool as used in 19.15.2 NMAC through 19.15.39 NMAC. "Pool" is synonymous with "common source of supply" and with "common reservoir".

(6) "Potential" means a well's properly determined capacity to produce oil or gas under division-prescribed conditions.

(7) "Ppm" means parts per million by volume.

(8) "PQL" means practical quantitation limit.

(9) "Pressure maintenance" means the injection of gas or other fluid into a reservoir, either to maintain the reservoir's existing pressure or to retard the reservoir pressure's natural decline.

(10) "Produced water" means ~~[those waters produced in conjunction with the production of oil or gas and commonly collected at field storage, processing or disposal facilities including lease tanks, commingled tank batteries, burn pits, lease ACT units and community or lease salt water disposal systems and that may be collected at gas processing plants, pipeline drips and other processing or transportation facilities]~~ water that is an incidental byproduct from drilling for or the production of oil and gas.

(11) "Producer" means the owner of a well or wells capable of producing oil or gas or both in paying quantities.

(12) "Product" means a commodity or thing made or manufactured from oil or gas, and derivatives of oil or gas, including refined crude oil, crude tops, topped crude, processed crude petroleum, residue from crude petroleum, cracking stock, uncracked fuel oil, treated crude oil, fuel oil, residuum, gas oil, naphtha, distillate, gasoline, kerosene, benzene, wash oil, lubricating oil and blends or mixtures of oil or gas or a derivative thereof.

(13) "Proration day" consists of 24 consecutive hours that begin at 7:00 a.m. and end at 7:00 a.m. on the following day.

(14) "Proration month" means the calendar month that begins at 7:00 a.m. on the first day of the month and ends at 7:00 a.m. on the first day of the next succeeding month.

(15) "Proration period" means for oil the proration month and for gas the 12-month period that begins at 7:00 a.m. on January 1 of each year and ends at 7:00 a.m. on January 1 of the succeeding year or other period designated by general or special order of the division.

(16) "Proration schedule" means the division orders authorizing the production, purchase and transportation of oil, casinghead gas and gas from the various units of oil or of gas in allocated pools.

(17) "Proration unit" means the area in a pool that can be effectively and efficiently drained by one well as determined by the division or commission (see NMSA 1978, Section 70-2-17(B)) as well as the area assigned to an individual well for the purposes of allocating allowable production pursuant to a prorationing order for the pool. A proration unit shall be the same size and shape as a spacing unit. All proration units are spacing units but not all spacing units are proration units.

(18) "Prospective spacing unit" means a hypothetical spacing unit that does not yet have a

producing well.

(19) "PVC" means poly vinyl chloride.

(20) "Psi" means pounds per square inch.

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[19.15.2.7 NMAC- Rp, 19.15.1.7 NMAC, 12/1/08; A, 3/31/15]