

State of New Mexico  
Energy, Minerals and Natural Resources Department

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## **Procedures for Implementation of the Spill Rule (19.15.29 NMAC)**

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**A number of issues have arisen since the effective date of the rule replacement in August 2018. This document is intended to provide direction to OCD staff on implementation of the rule. This should lead to consistent responses and actions by each of our district offices. As additional issues are identified, they can also be addressed.**

### **I. REMEDIATION/RECLAMATION/RESTORATION ARE DISTINCT PROCESSES:**

It is important to understand that remediation, reclamation, and restoration do not all mean the same thing. Remediation means cleaning up or removing contaminated soils. Reclamation and/or restoration mean replacing removed material, including topsoil, along with contouring of the surface to replicate the original surface drainage, and getting vegetation to grow once again.

### **II. RECLAMATION OF TOP FOUR FEET:**

- a. 19.15.29.13(D)(1) NMAC says *“The reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division.”*
- b. This language mirrors that associated with reclamation under the Pit Rule (19.15.17.13(H)(3) NMAC), for purposes of complying with the Spill Rule (19.15.29 NMAC). The word “uncontaminated” means soils not only with a chloride concentration of less than 600 mg/kg, but also a TPH concentration of no more than 100 mg/kg, a total BTEX concentration of no more than 50 mg/kg, and a benzene concentration of no more than 10 mg/kg. These are the most protective concentrations contained in Table I of 19.15.29.12 NMAC.

As is also noted in Table I, we allow the closure criteria to be the natural background level of chloride, if it is greater. There is no natural background level for TPH, BTEX, or benzene

- c. The phrase “non-waste containing” for the backfill of the top 4-feet can be either unaffected soils or soils which after treatment contain concentrations of chloride of less than 600 mg/kg, a TPH concentration of no more than 100 mg/kg, a total BTEX concentration of no more than 50 mg/kg, and a benzene concentration of no more than 10 mg/kg, as stated above.
- d. Soils which have been treated, remediated, or landfarmed are acceptable for closure, but the simple blending or mixing of contaminated soils with cleaner soils for purposes of reducing the chloride and/or hydrocarbon concentrations is not acceptable.

### **III. PURPOSE OF RECLAMATION:**

- a. 19.15.29.13(D) NMAC states *“The responsible party shall reclaim all areas disturbed by the remediation and closure.”*

- b. The primary purpose here is to re-establish vegetative growth. The root zone for most native plants is in the uppermost four feet. If an area was impacted by a release but the concentration in the uppermost four feet of soil with chloride is less than 600 mg/kg., TPH less than 100 mg/kg, total BTEX less than 50 mg/kg, and benzene less than 10 mg/kg the OCD does not require those soils to be remediated.
- c. The surface owner (BLM, SLO, or private) may impose more stringent requirements, but those conditions are theirs to enforce.
- d. If the responsible party can demonstrate that a natural background level of chloride exists which is greater than 600 mg/kg, then that concentration will be the OCD's remediation standard for that area affected by the release. Again, there is no natural background level for TPH, BTEX, or benzene.

#### **IV. RECLAMATION AND TABLE I:**

- a. Imagine a spill occurs in an area where the depth to groundwater is 75 feet and the soil data indicates the highest observed chloride concentration is 9,000 mg/kg. The chloride closure criteria in Table I is 10,000 mg/kg. You might think that no further action is required. However, the reclamation requirement in 19.15.29.13(D)(1) NMAC for chloride is less than 600 mg/kg and uncontaminated soils showing TPH less than 100 mg/kg, total BTEX less than 50 mg/kg, and benzene less than 10 mg/kg in the top four feet. So, the upper layers of soil still need to be cleaned up. For areas deferred under 19.15.29.12(C)(2) this reclamation may happen at a later date, but it is still required when the area is no longer in use.

#### **V. LINERS REQUIRE A VARIANCE:**

- a. If after characterization of a release, the responsible party proposes in its remediation plan (19.15.29.11(B) and 19.15.29.12(C) NMAC) to leave contamination in place with concentrations greater than those specified in Table I, such a plan is a clear variance request to the rule.  
Example: After removal of contaminated soils from the uppermost four feet in an area where the depth to groundwater is between 51 and 100 feet the responsible party wishes to install a synthetic liner atop soils with a chloride concentration greater than 10,000 mg/kg and then backfill.
- b. Under 19.15.29.14(A) NMAC each variance request must include "a detailed statement *explaining the need for a variance*" along with "a detailed written demonstration that the variance will provide equal or better protection of fresh water, public health and the environment." A possible way of making such a demonstration for the example above is to provide soil concentration data showing adequate separation from the bottom of vadose zone contamination and groundwater.
- c. Variance requests are to be submitted to the appropriate district office, not to Santa Fe. However, OCD district staff should consider consulting the Environmental Bureau in Santa Fe regarding approval or denial of any variance as we strive toward consistency across the state. If a responsible party does not agree with the denial of a variance request, the party can file for a hearing in accordance with 19.15.29.14(D) NMAC.

#### **VI. ON-SITE vs. OFF-SITE REMEDIATION:**

- a. The remediation requirements in Table 1 19.15.29.12 NMAC are the same for all releases, whether they occur on an active production site or not (19.15.29.12(C)(2) and (3) NMAC). Remediation on an active site can be deferred in areas immediately under or around production equipment such as production tanks, wellheads, and pipelines where remediation could cause a major facility deconstruction. A major facility deconstruction is determined by the OCD on a case by case basis. The remediation, restoration, and reclamation may be deferred with OCD's written

approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first. For the deferral request the contamination must be fully delineated. In addition, the contamination must not pose an imminent risk to human health, the environment, or groundwater. Deferrals are not forever and remediation must be completed in a timely fashion once the equipment is out of use for oil and gas operations.

- b. Cleanup of off-site impacts cannot be deferred as they would not meet the deferral requirements of 19.15.29.12(C)(2) NMAC.
- c. The difference between on- and off-site releases is when the reclamation and restoration must occur. Off-site releases must be reclaimed and restored immediately. On-site reclamation and restoration can wait until operations have ceased, but still must be done.

**VII. CLOSURE SAMPLING PLANS:**

If a responsible party wishes to remediate a spill within 90 days of its discovery without submitting a remediation plan, the closure samples must reflect the gathering of composites representative of no more than 200 square feet per composite sample per 19.15.29.12(D)(1)(c) NMAC. Alternative sampling plans will only be allowed with written permission from the OCD. In accordance with 19.15.29.12(D)(1)(b) NMAC, there are no listed standards as to what a responsible party can base an alternative sampling plan upon. Therefore, the OCD may request justifications or methods used in constructing the plan such that an appropriate decision can be made. OCD staff can provide verbal approval, but it must be followed up in writing such as an email.

**VIII. VOLUME CALCULATIONS:**

- a. Responsible parties have asked why the new form C-141 requires volume calculations and why there is a question on the release notification form regarding the concentration of chloride in the produced water. Under 19.15.29.11(A)(5)(c) NMAC, the vertical extent of chloride contamination must be delineated to less than 600 mg/kg even when the depth to groundwater is between 50 and 100 feet if any produced water released contains more than 10,000 mg/kg of chloride and the volume released is either unknown or more than 200 barrels of unrecovered water. The volume released can be accomplished in any number of ways, but it must be reasonable. Otherwise, the OCD will consider the volume as unknown and the responsible party must delineate accordingly.
- b. It is important to note that this does not affect the remediation requirements under Table I, only the characterization limits which may impact the cleanup.

**IX. DETERMINING DEPTH TO GROUNDWATER:**

- a. The remediation levels provided in Table I are largely dependent upon depth to groundwater. As such, the OCD focuses upon depth to water estimation. 19.15.11(A)(2) NMAC allows for various means of determining depth to groundwater. If nearby wells are used, it is preferable if they are situated within ½-mile of the release, the water level information is no more than 25 years old, and well construction information is provided. If the water level information does not meet these criteria, the OCD may require boring to a limited depth for verification. If the operator has applicable information which does not meet the above preference, we will review it on a case by case basis to determine if it is acceptable.
- b. If the water well information is representative of a confined aquifer (often described as “artesian”), the depth to water in the well will be considered the depth to the bottom of the upper confining layer, not the observed water level in the well.

- c. It is important to note that wells installed for water supply purposes may not be screened across shallower, less-productive zones. Those less-productive zones might contain protectable water.

**X. 2-DAY NOTICE REQUIREMENT DURING SITE ASSESSMENT AND CHARACTERIZATION:**

- a. The requirement of the responsible party to give two business days prior notice pursuant to 19.15.29.11(5)(a)(ii) is limited to liner inspections of contained releases and for closure sampling.
- b. If a responsible party determines the release site may meet closure standards and the characterization samples may be used as closure samples, they may want to give the OCD notice of the sampling and inform the OCD it may be used for closure. This may reduce the chances the site would have to be resampled for closure.

**XI. CLOSURE WHEN RE-CONTOURING COMPLETED:**

With respect to the revegetation requirements under 19.15.29.13(D)(3) NMAC, OCD will typically “close” a release case within its database once the area has been recontoured. If it is later determined that a uniform vegetative cover has not been established within a reasonable time, OCD will enforce the requirements of the rule accordingly.

**XII. OBTAINING BACKGROUND DATA:**

The rule speaks of “background” chloride concentrations in three places: 19.15.29.11(A)(5)(c) NMAC regarding unknown or large volume releases, as a footnote to Table I, and in 19.15.29.13(D)(1) NMAC regarding reclamation. How would a responsible party obtain information to determine background? A grab, not composite, sample(s) should be gathered in areas undisturbed by oil and gas activities, nominally uphill from the release area, and no closer than 50 feet but no farther than 100 feet from the lateral and horizontal extents of a release’s impact. The background sampling should be representative of the entire horizontal and vertical extent of the release. Other means may be acceptable to OCD, but only after review and a written determination.

**XIII. PHOTOS:**

Unless the OCD specifically determines in writing and with an explanation on a case-by-case basis that photo documentation is needed to understand the character and impact of a release, photos are only required for remediated sites prior to backfilling as part of a closure report. The entire remediated area must be accurately represented by the photos provided for closure. Date, time, and geo-referencing of photos is strongly encouraged, but it is not required under the rule.

**XIV. 60 DAY EXPIRATION OF REMEDIATION OR CLOSURE SUBMITTAL:**

19.15.29.12(C)(5) and (E)(2) NMAC state that if a remediation plan or closure report is submitted and 60 days later the OCD has not responded, then the report is deemed denied. If this occurs, the responsible party can resubmit the closure report, noting the lack of action by the OCD, or file for hearing.

**XV. IF WATER IMPACTED THEN RULE 30:**

- a. The regulatory oversight of all spills is initially covered under 19.15.29 NMAC. However, once a determination is made that groundwater or surface water has been impacted, corrective action is carried out under the provisions of 19.15.30 NMAC requiring the development of Stage 1 (investigation) and Stage 2 (remediation) abatement plans. There are also requirements for public notice.

- b. Furthermore, 19.15.30 NMAC does not have numeric cleanup levels for contaminated soils. Instead it says:

*“The responsible person shall abate the vadose zone so that water contaminants in the vadose zone will not with reasonable probability contaminate groundwater or surface water in excess of the standards in Subsections B and C of 19.15.30.9 NMAC, through leaching, percolating or other transport mechanisms, or as the water table elevation fluctuates.”* (19.15.30.9(A) NMAC).

- c. 19.15.30.9(B) and (C) NMAC refer to standards found in the Water Quality Control Commission regulations; 20.6.2 and 20.6.4 NMAC.

**XVI. FEES:**

The new fees legislation took effect July 1, 2019 and requires a \$150 filing fee to accompany each C-141 submission. This includes any submittal on a C-141, including but not limited to, initial C-141s, characterization reports with remediation plans, and closure reports. Requests and notifications made separate from the C-141 do not require a fee, this includes but is not limited to; separate alternative sampling plans and verbal notifications.