



COGCC OPERATOR GUIDANCE

RULE 905.A.(3) - E&P WASTE MANAGEMENT PLANS FOR REUSE & RECYCLING

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Rule Citation: 905.a.(3) - Reuse & Recycling

(1) Reuse and Recycling. To encourage and promote waste minimization, Operators may propose plans for managing E&P Waste through beneficial use, reuse, and recycling by submitting a written management plan to the Director for approval on a Form 4, Form 15, or Form 28, Centralized E&P Waste Management Facility Permit. Such plans will describe, at a minimum:

- A. The type(s) of waste;
- B. The proposed volume and use of the waste;
- C. The method of waste treatment and storage;
- D. Recycled materials quality assurance;
- E. Final disposition of the waste;
- F. A copy of any certification or authorization that may be required by other laws and regulations;
- G. A proposed timeline for reuse and recycling;
- H. Beneficial use criteria;
- I. Anticipated method of transporting waste;and
- J. Any additional information requested by the Director.

Purpose of Rule

Rule 905.a.(3) provides Operators the opportunity to develop specific plans for reuse and recycling E&P waste in a protective manner that minimizes waste. Waste Management Plans (“WMPs”) for reuse and recycling can be submitted within the overall plan that is required by Rule 905.a.(4) or it can be submitted as a stand alone plan for a specific project. Stand alone plans are suggested for larger more complex treatment plans of E&P waste for reuse/recycling.

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WMPs for reuse and recycling developed under this rule are generally intended to result in the treatment of certain Exploration and Production Wastes (“E&P Wastes”) to be reused in the oil and gas fields where they were generated. A common example is the treatment of flowback and/or produced water for reuse in the field for drilling fluids, workover fluids, or frac fluids. However, these plans are not only for the reuse and recycling of produced water. Operators may develop plans for other E&P Wastes that will be able to be recycled or reused to minimize wastes. Plans will also be accepted for use of E&P Waste outside of oil & gas fields with the understanding that the Operator will need to seek and coordinate approval from other agencies and local governments as needed where COGCC jurisdiction does not apply.

Ultimately these reuse and recycling plans allow an Operator to take advantage of technology or treatment methods that can reduce the upfront need for natural resources such as fresh water for hydraulic fracturing and provide benefits such as reduced volume of waste streams, safer handling of certain wastes, reduced transportation, cost savings, and an overall reduction in risk to the environment from E&P Waste.

E&P Wastes are defined as those wastes associated with operations to locate or remove oil or gas from the ground or to remove impurities from such substances and which are uniquely associated with and intrinsic to oil and gas exploration, development, or production operations that are exempt from regulation under Subtitle C of the Resource Conservation and Recovery Act (“RCRA”), 42 USC Sections 6921, et seq. For natural gas, primary field operations include those production-related activities at or near the wellhead and at the gas plant (regardless of whether or not the gas plant is at or near the wellhead), but prior to transport of the natural gas from the gas plant to market. In addition, uniquely associated wastes derived from the production stream along the gas plant feeder pipelines are considered E&P Wastes, even if a change of custody in the natural gas has occurred between the wellhead and the gas plant. In addition, wastes uniquely associated with the operations to recover natural gas from underground storage fields are considered to be E&P Waste.

Additional information can be found in the following COGCC Guidance documents:

304.c.(11)/905.a.(4) - Waste Management Plan

615.e.1 - Model Sampling and Analysis Plan

913.b.(5)B i-v - Remediation Standards

915 - Concentrations and Sampling for Soil and Groundwater

915.e.(2) - Soil Sampling and Analysis

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Operator, as generator, will ensure that E&P Waste is properly characterized, stored, handled, transported, and managed pursuant to Rule 905 and all other applicable federal, state, and local regulations to protect public health, safety, welfare, and prevent threatened or actual adverse environmental impacts to air, water, soil, or biological resources.

The COGCC encourages beneficial use, reuse, and recycling of E&P Wastes as long as the Operator ensures compliance with the concentration levels in Table 915-1, and WQCC Regulation 41 for numeric and narrative Groundwater quality standards and classifications as incorporated by reference in Rule 901.b for E&P Wastes to remain on location or proposed for beneficial use, reuse, or recycling. Management of E&P Waste involving beneficial use, reuse, and/or recycling requires prior COGCC approval.

Operator will submit the WMP for the beneficial use, reuse, or recycling of E&P Waste on a Form 4, Sundry Notice (Form 4), Form 15, Pit Permit/Report (Form 15), or a Form 28, Centralized E&P Waste Management Facility Permit (Form 28), as appropriate. Reuse and recycling can also be included within an overall WMP required by Rule 905.a.(4) submitted with a Form 2A, Oil and Gas Location Assessment (Form 2A) as required by Rule 304.c.(11).

Operator will provide the following information on a WMP for Reuse and Recycling submitted for Director review:

- A. The type(s) of waste: State the specific type of waste and what physical and chemical hazards the waste stream may pose. Operator will identify if field testing and/or environmental laboratory analyses are needed to further characterize or profile the waste, as appropriate. Operator may provide results of laboratory analysis if available at the time of WMP submittal. Operator will also identify waste streams generated during the treatment process that cannot be reused or recycled and must be disposed. For example, Operator may identify that concentrated brine generated during the treatment of produced water cannot be reused or further recycled.
- B. The proposed volume and use of the waste: Operator will specify the waste process as well as the amount, frequency, and duration of waste generation.
- C. The method of waste treatment and storage: Operator will provide information on the technology and equipment to be used for waste treatment that ensures compliance with Table 915-1. Information will be specific to the E&P Waste being treated, but may include flow charts, process diagrams, and vendor

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literature. It should be noted that COGCC cannot endorse certain types of treatment methods or technology, but requires enough information to determine that the methods proposed will be effective and protective of public health, safety, and the environment. Operators should also provide information about the planned waste handling, storage, and containment in this section of their plan.

When a Form 27, Site Investigation and Remediation Workplan (Form 27) is required for the remediation of E&P Waste, the Operator can propose site specific reuse of treated waste under those individual plans. For example, if Oily Waste was remediated on site under an approved Form 27 and sufficient documentation was provided to verify that the waste complied with all contaminants of concern on Table 915-1, the Operator could propose use of the treated waste for backfill, berm construction, or another use if the material was of sufficient quality for those purposes. If that reuse was approved on a Form 27 for a specific Remediation project at an individual site, a new stand alone WMP for Reuse & Recycling would not generally be required. In these instances the Operator should consult with the area Environmental Protection Specialist on the need for a specific reuse and recycling plan, or updates to existing WMPs required by Rule 905.a.(4).

If the method of treatment and/or storage of waste on an existing Oil & Gas Location will result in the need to expand the Location or cause significant change to the design and operation of the Location, the Operator will be required to submit and obtain approval of a Form 2A to amend the location prior to implementing the plan as required by Rule 304.a.

- D. Recycled materials quality assurance: Operator will provide a plan for any pretreatment testing that may be required to profile waste and to verify adequate treatment prior to recycling or reuse. In some cases, in larger and more complex WMPs, COGCC may require a specific Sampling and Analysis Plan to address quality assurance.
- E. Final disposition of the waste: Operator will provide the details for the final disposition of E&P Waste which ensures that the waste is recycled or reused in a manner that is protective of and minimizes adverse impacts to public health, safety, welfare, the environment, and wildlife resources. Operator will also identify the final disposition of waste generated during the treatment process that cannot be reused or recycled and must be disposed. If the waste treatment results in multiple waste streams, Operator shall describe the final disposition of each individual waste stream.

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- F. A copy of any certification or authorization that may be required by other laws and regulations: Operator will provide certifications or authorizations required by all applicable federal, state, and local laws and regulations, as well as Surface Owner and lease agreement conditions.
- G. A proposed timeline for reuse and recycling: Approval of a reuse and recycling plan must have a proposed timeline. COGCC will require submittal of a Form 28 for a Centralized E&P Waste Management Facility if waste treatment is performed on the same Location for a period of three years. Operators should plan to start with a Form 28 if they have long term treatment plans on the same Location that will exceed three years. The reuse and recycling plans can be very effective approaches for performing temporary pilot scale treatment projects before moving to larger scale permanent centralized facilities. This approach is also effective for temporary waste treatment on different locations as development proceeds across an active field.
- H. Beneficial use criteria: Each plan will include a description of any specific types of beneficial use planned for a waste and what criteria establishes the beneficial use. For example, if drill cuttings and associated water based bentonitic drilling fluids that comply with Table 915-1 standards are planned to be applied to an agricultural field as a beneficial soil amendment, explain the specific benefits to the soil that will result from the Land Application at that location.
- I. Anticipated method of transporting waste: Provide the waste transportation method such as trucking, pipeline, conveyor, etc. In some cases, COGCC may request planned haul routes if reuse and recycling on a Location will result in large numbers of truck trips to and from a site. Please note, Operators must comply with Rule 905.b E&P Waste Transportation for all waste transported off site. This rule has specific waste generator requirements and record keeping requirements. The plan will include a discussion of waste transportation and record keeping required by Rule 905.b if waste will be transported off location.
- J. Any additional information requested by the Director: COGCC Staff will conduct a site-specific review, and may request additional information. This may include but is not limited to: engineered stormwater plans, grading plans, traffic control plans, wildlife and wetland surveys and/or Best Management Practices (“BMPs”), map(s) showing the site and surrounding cultural, topographic, and hydrologic features, soil surveys, emissions controls, Groundwater protection plans, site security plans, and any other measures necessary to minimize adverse impacts.

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