

2026-01-23_Gasco: Materials Management

Meeting Title:	Gasco: Materials Management
Date/Time:	January 23, 2026 / 10:30 am - 12:00 pm
Attendees:	AQ: Halah Voges, Steve Brown, Ryan Barth EE: Rob Ede DEQ: Wes Thomas, Audrey O'Brien, Jeremy Flemming
Location:	MS Teams

Meeting Notes:

- Introductions
- Project overview
 - EE provides a summary of the IRAM scope of work and describes how the IRAM technologies, specifically ISS, works. EE defines the term "swell." There is general discussion about the ISS additives and how those are selected and refined through treatability studies.
 - EE provides a summary of the types of contamination at the site.
 - EE provides an overview of the in-water remedy.
 - EE states that the objective of today's meeting is to discuss options for managing ISS-swell on-site. EE would like to keep the discussion conceptual without getting into the nuance of swell generated during in-water work versus upland work.
 - EE indicates that there is about 80,000 cubic yards of capacity for swell placement within two former above ground storage tank basins. Tank basins are currently 12 to 15 feet below grade, and the ISS swell would help bring them up to the surrounding grade.
- DEQ states that our goal is to understand the project and the questions that EE/AQ may have. We do not plan to make decisions today.
- EE discusses potential parallels with Arkema project. Arkema has recently submitted a CMMP that provides for managing materials on-site during an ISS cleanup action. EE also explains that on-site materials management provides a lot of benefits, including reducing costs, reducing implementation risks associated with off-site transport of wastes, and preserves landfill space. It also reduces needing to import clean materials.
 - DEQ clarifies the similarities between Arkema's materials management approach and what NW Natural is proposing. Arkema will remove cleaner (no DNAPL) overburden soils and manage those soils based on their characteristics. Most of the soil does not exceed occupational RBCs. DNAPL or hot spot impacted materials will remain in-place and will be treated via ISS. ISS swell will remain within the excavation and will not be transferred or transported to another portion of their site.
 - EE acknowledges the specific differences between the approaches. EE notes that they anticipate creating an AOC that would allow moving materials around the site without "generating" the materials as waste streams. That approach is similar to what Arkema is doing.
- EE notes that ISS will be a large component of the upland remedy and NW Natural would like to develop a way to manage the ISS swell in a safe and protective manner. EE poses the following questions for discussion:
 - What would DEQ see as necessary for characterizing the ISS swell?
 - What testing requirements would be necessary before placing the ISS swell in a basin?
 - If the ISS swell is placed in a basin, what are the requirements for engineering controls?
- DEQ notes that it depends on the approach we take for materials management. The approach would be different for a permitted landfill. If we are placing material in a landfill, it would need to be lined, and we would need characterization data.
 - EE does not believe they would like to pursue a permitted landfill.
- DEQ makes a few additional clarifying remarks:
 - DEQ calls out that the requirements for the basins, including whether they are permitted as a

- landfill versus a more flexible approach, depends on where the swell is generated. While we recognize the desire to avoid those details at this point and focus on concepts, the source of the swell affects the requirements, even at a conceptual level. For in-water ISS swell, the basins would need to be permitted as a landfill. If we are only discussing upland ISS swell, then DEQ can use a more flexible approach that incorporates substantive requirements from the materials management regulations.
- DEQ has some guidance for permitted landfills that would remain relevant to the discussion. DEQ would want to understand if we are siting the landfill on top of a contaminated area and whether there would be risks that these materials could be released in the future.
- EE understands DEQ's clarification about the differences between in-water and upland ISS swell. For the purpose of this discussion, let's assume all of the swell is from upland ISS work.
 - For the upland ISS swell, DEQ's focus will be on substantive requirements. These substantive requirements include characterization of swell material, determining the design requirements for a liner, capping requirements, monitoring requirements, and would there be a need to manage leachate. DEQ cleanup would work with solid waste to evaluate NW Natural's proposed approach.
 - EE asks if NW Natural designates the entire Gasco OU as an AOC, would there be a restriction on the type of contamination that can be placed? For example ISS swell with F002 constituents or special waste (benzene hazardous characteristic). Or would those ISS-swell materials need to go off-site?
 - EE asks if the placement of a liner in the basins would affect DEQ's decision making with regard to accepting ISS swell?
 - EE asks what other decision criteria DEQ would want to consider, for example, Non-haz vs haz, chemical concentration thresholds?
 - DEQ will need to consider these questions further.
 - ARARs are largely going to be engineering controls and institutional controls. Some of those are already a given for the site. For example, based on the information in the draft FS, DEQ understands that a cap will be placed over the whole site. We also know that monitoring will occur. From DEQ cleanup's perspective, the objective is to place these materials in a safe and protective way. Our decisions regarding ISS swell placement in these basins should flow from how certain we are that the engineering controls will accomplish that end goal. We also want to ensure that the ISS swell management approach is compatible with other upland cleanup. For example, we know these basins are in an area where we believe we can restore groundwater beneficial use for the aquatic life receptor. We would not want the decision to place ISS swell affect that outcome. We also understand that the 100-foot trench is currently located in one of the basins and would need to be relocated or adjusted, and the IRAM design should address that. Finally, part of the ongoing work is treatability testing, which should provide information about contaminant leachability after ISS treatment. Those data are likely relevant to our discussion. Our decisions about ISS swell management engineering controls and acceptance criteria is related to treatability study results and coordination/compatibility with cleanup work.
 - EE notes that the BODR proposes an example testing frequency for ISS swell material before it is placed. EE asks if there may be an opportunity to reduce testing frequency during construction based on those factors DEQ mentioned?
 - AQ believes that testing frequency may come down to whether a liner is included and the treatability study results.
 - DEQ also wants to consider future use of the site. We do not want this decision to lead to reopening of the cleanup site in the future.
 - EE understands that the ISS swell management approach needs to jive with the upland remedy. To that end, NW Natural is working on the revised FS and should be able understand the long-term cleanup needs in this area soon. Those needs can be incorporated into the IRAM planning. EE also notes that the revised IRAM BODR includes a work plan to characterize the nature/extent of contamination below the above ground storage tanks, which will provide a lot of information about cleanup needs within the basins.
 - EE notes that characterizing the ISS swell during construction adds complexity and the potential need to double-handle material. EE asks what can be done to right-size the sampling approach during construction to keep things moving forward.
 - DEQ understands the concern. DEQ suggests a conservative approach. The more that NW

Natural incorporates engineering controls and robust upfront sampling and testing, the easier it will be for DEQ to weigh-in on what is needed during construction

- DEQ clarifies beneficial use terminology.