

# 1RF - 450

Quail Ranch Air Gap  
Above-Ground Storage Tank  
Recycling Containment  
Response to OCD Request  
for Additional Information

Solaris Midstream LLC  
April 24, 2020

**From:** [r@rthicksconsult.com](mailto:r@rthicksconsult.com)  
**To:** [LucasKamat, Susan, EMNRD](mailto:LucasKamat.Susan.EMNRD)  
**Subject:** [EXT] FW: OCD Request for Air Gap Info - URGENT  
**Date:** Friday, April 24, 2020 3:47:01 PM

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Here are the responses directly from Solaris, as you can see.

I trust this will be what you need, given the PE variance for 1-2 years, etc.

Thanks for this!!

Have a good weekend.

Randall Hicks, PG  
505-238-9515 (cell)  
505-266-5004  
901 Rio Grande Blvd. NW  
Suite F-142  
Albuquerque, NM 87104

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**From:** Michael Incerto <Michael.Incerto@solarismidstream.com>  
**Sent:** Friday, April 24, 2020 3:42 PM  
**To:** Todd Carpenter <todd.carpenter@solarismidstream.com>; Jon Ricker <jon.ricker@solarismidstream.com>; Randall Hicks <r@rthicksconsult.com>; Tyler Travis <tyler.travis@solarismidstream.com>  
**Subject:** RE: OCD Request for Air Gap Info - URGENT

Randy please see my answers in red below

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**From:** Michael Incerto  
**Sent:** Friday, April 24, 2020 2:48 PM  
**To:** Todd Carpenter <[todd.carpenter@solarismidstream.com](mailto:todd.carpenter@solarismidstream.com)>; Jon Ricker <[jon.ricker@solarismidstream.com](mailto:jon.ricker@solarismidstream.com)>; Randall Hicks <[r@rthicksconsult.com](mailto:r@rthicksconsult.com)>; Tyler Travis <[tyler.travis@solarismidstream.com](mailto:tyler.travis@solarismidstream.com)>  
**Subject:** OCD Request for Air Gap Info - URGENT

Tyler and Jon,

The OCD has urgently asked the we provide answers to the following questions today. Happy to give you more context over the phone, if you'd like, but could you please share your thoughts on these as soon as possible? Part of our justification to the OCD for granting us permission to store PW so quickly was that this was an emergency because it allowed Solaris to relieve current and impending pipeline pressures, hence the questions from them below.....



1. Please provide a detailed analysis of why the pipeline pressure conditions are considered an emergency. What are the design specifications of the current Solaris pipeline system that will be stressed? What are the recent and current pipeline operational conditions?

One of our major customers (and one of New Mexico's largest E&P operators) will begin flowing back a series of wells next week. If we do not have this air gap in place, we will not be able to transfer all of this customer's produced water, causing the customer to shut-in some of its wells.

2. Please provide calculations and documentation to support that the proposed designed containment is of adequate volume to mitigate the emergency.

The AST's purpose is to handle instantaneous rate surges of 80k barrels per day, while we expect to transfer approximately 60k barrels per day, on average. We cannot transfer this incremental 20k barrels per day beyond this point in our system. So, we utilize the AST as a buffer to reset our transfer rate. At ~20k barrels in capacity, we have approximately 8 hours or so before we fill up the AST – this was close to the minimum amount of time we wanted to be comfortable from an operational perspective.

3. Please provide operational details describing how fluids are introduced into the containment. Are they introduced manually or via an automated system?

We transfer the produced water into the facility via pipeline with a shutdown valve. The facility will be manned 24 hours per day, and the tank is outfitted with level alarms.

Thanks,

**Michael Incerto**

Vice President | Water Resources

**Solaris Water Midstream, LLC**

M: [512.970.6666](tel:512.970.6666) | O: [832.803.0350](tel:832.803.0350)

[www.solarismidstream.com](http://www.solarismidstream.com)

**From:** [LucasKamat, Susan, EMNRD](#)  
**To:** ["Todd Carpenter"](#)  
**Cc:** ["Michael Incerto"](#); [Randall Hicks](#); [madison@rthicksconsult.com](mailto:madison@rthicksconsult.com); [Griswold, Jim, EMNRD](#); [Polak, Tiffany, EMNRD](#)  
**Subject:** RE: [EXT] Solaris Quail Ranch Air Gap AST  
**Date:** Thursday, April 23, 2020 5:08:00 PM

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Mr. Carpenter,

The Oil Conservation Division (OCD) is in receipt of Solaris Quail Ranch Air Gap AST C-147 recycling containment permit application Volume 1 submitted by R.T. Hicks Consultants (RT Hicks) on April 22 on behalf of Solaris Midstream LLC (Solaris). After reviewing the document, OCD has determined that the proposed facility does not meet the definition of an emergency pit, temporary pit, or permanent pit under 15.19.17 NMAC, and that the proposed facility should be permitted as a recycling containment under 19.15.34 NMAC.

The OCD needs the following information to further process this C-147 permit application.

1. The submittal did not include a list of variance requests and documents supporting the variance requests. The variance list should include, at a minimum, a request for a variance for the primary and secondary liners (19.15.34.12(A)4 NMAC), for the interior and exterior slope (19.15.34.12(A)2 NMAC), and for the anchor trench (19.15.34.12(A)2 and 3 NMAC). Please provide a variance list and supporting documentation for all variances required by the proposed design.
2. The submittal does not include the financial assurance amount, the closure cost estimate, or the supporting documentation on how the closure cost was estimated. Please provide information on the financial assurance document, the closure cost estimate, and the method used to calculate the closure cost estimate.
3. Please provide a detailed analysis of why the pipeline pressure conditions are considered an emergency. What are the design specifications of the current Solaris pipeline system that will be stressed? What are the recent and current pipeline operational conditions?
4. Please describe the actions Solaris has implemented, or will implement, to avoid both the magnitude and duration of this emergency.
5. Please provide a timeline, including duration, of this emergency, as well as a timeline to compliance.
6. Please provide calculations and documentation to support that the proposed designed containment is of adequate volume to mitigate the emergency.
7. Please provide engineering support that the containment will function safely until the emergency has passed.
8. Please provide details on the volume and type of fluid currently in the containment.
9. Please explain why an additional 30-mil primary was not installed before fluid was introduced into the containment.
10. Please provide operational details describing how fluids are introduced into the containment. Are they introduced manually or via an automated system?

Solaris cannot introduce produced water into the proposed facility without being out-of-compliance until the OCD has issued a permit for this operation and the required financial assurance has been approved and put into place.

Please do not hesitate to contact me if you have any questions.

Regards,  
Susan

**Susan A. Lucas Kamat**

*Environmental Scientist*

Oil Conservation Division

Energy, Minerals, and Natural Resources Department

5200 Oakland Avenue, Suite 100

Albuquerque, New Mexico 87113

(505) 670-8745

Susan.LucasKamat@state.nm.us

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**From:** Randall Hicks <r@rthicksconsult.com>

**Sent:** Wednesday, April 22, 2020 6:54 AM

**To:** LucasKamat, Susan, EMNRD <Susan.LucasKamat@state.nm.us>

**Cc:** madison@rthicksconsult.com; 'Michael Incerto' <Michael.Incerto@solarismidstream.com>;

'Todd Carpenter' <todd.carpenter@solarismidstream.com>

**Subject:** [EXT] Solaris Quail Ranch Air Gap AST

Ms. Lucas Kamat

Attached is the transmittal letter to a document that will be coming your way before noon today. It is this letter that I mentioned as part of the agenda for today's Earth Day telephone call regarding our list of project.

The need for the emergency action discussed in this letter happened suddenly such that we accelerated the production of this letter and the forthcoming document that provides significant detail regarding the action. This letter has not undergone review by Solaris – but the need to move this forward is greater than the need for review. I do not believe anything material will change after their review this morning.

The initial plan was to move forward with submission of a C-147 for this facility until the situation on the ground necessitated this change.

More coming to you later in this morning.

Randall T. Hicks PG

R.T.Hicks Consultants LTD

901 Rio Grande Blvd. NW F-142