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**[External] RE: Department/ETC Meeting Follow-up Questions**

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**From** Garcia, Mario <mario.garcia@energytransfer.com>

**Date** Mon 4/13/2026 10:44 AM

**To** Brusceci, Alexis <abusceci@pa.gov>

**Cc** Garcia, Lisa M <Lisa.Garcia@energytransfer.com>; Frisco, Doug <Doug.Frisco@energytransfer.com>; Orris, Edward <eorris@pa.gov>

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Hi Alexis,

Please see our response below:

- Valves: No change.
- Pump seals: applied 75% control efficiency with the "difficult to monitor" provision in the Table V notes (Endnote #1) to the TCEQ guidance document.
- Other gas vapor: this is meant to represent relief valves, OEL's, Sampling connections. Applied 97% control due to being monitored at 500 ppm, 28 CNTQ factor was utilized as per Table VI in the TCEQ Guidance document.
- Other (refrigerant): applied 75% control efficiency with the "difficult to monitor" provision in the Table V notes (Endnote #1) to the TCEQ guidance document.
- Pump seals – light oil: assumed, conservatively, lower with the "difficult to monitor" provision in the Table V notes to the TCEQ Guidance document
- Flanges and Connectors: 97% control due to being monitored at 500 ppm, 28 CNTQ factor was utilized as per Table VI in the TCEQ Guidance document

If you have any further questions, please let me know.

Thanks,

Mario Garcia  
Sr. Engineer II- Environmental

E&C Environmental  
Energy Transfer  
O: 713.989.4603  
M: 713.887.4853

-----Original Message-----

From: Brusceci, Alexis <abrusceci@pa.gov>  
Sent: Thursday, April 9, 2026 8:50 AM  
To: Garcia, Mario <mario.garcia@energytransfer.com>  
Cc: Garcia, Lisa M <Lisa.Garcia@energytransfer.com>; Frisco, Doug <Doug.Frisco@energytransfer.com>;  
Orris, Edward <eorris@pa.gov>  
Subject: Department/ETC Meeting Follow-up Questions

Hi Mario,

Here is the Department's follow-up questions from this weeks call:

1.

Regarding TABLE 4. Fugitive Emissions from Component Leaks in the application. How did ETC arrive at the control efficiency numbers percentages in TABLE 4 for the various component types in various services? The table below summarizes the components/services in TABLE 4 and the control efficiencies for various the VHP and LAER programs in TCEQ - Control Efficiencies for TCEQ Leak Detection and Repair Programs" (2018). What is the basis/assumptions for each of the ETC LDAR control efficiencies highlighted in the table below?

| Component                     | ETC LDAR Control Efficiency | TCEQ 2018 VHP | TCEQ LAER |
|-------------------------------|-----------------------------|---------------|-----------|
| * Valves GV<br>97%            | 97%                         | 97%           |           |
| * Valves Light Oil<br>97%     | 97%                         | 97%           |           |
| * Pump Seals Gas              | 75%                         |               |           |
| * Pump Seals Light Oil<br>93% | 75%                         | 85%           |           |
| * Other GV                    | 97%                         |               |           |
| * Other GV - Refrigerant      | 75%                         |               |           |
| * Other Light Oil Condensate  | 75%                         |               |           |
| * Connectors Gas              | 97%                         | 30%           |           |
| *<br>Flanges GV<br>97%        | 97%                         | 30%           |           |
| * Flanges Light Oil<br>97%    | 97%                         | 30%           |           |

1.

What are the assumptions, LDAR requirements including monitoring frequency and method(s),

