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June 21, 2017

Mr. Tim Duggan  
Vermont Department of Public Service  
112 State Street  
Montpelier, VT

RE: VGS Depth of Cover in VELCO Right of Way – Opinion

Dear Mr. Duggan:

This letter is in response and sets forth my opinion regarding VGS's June 2, 2017 request for Board approval for a non-substantial change determination regarding depth of cover in the VELCO right of way.

The final order approving the pipeline required that VGS have a minimum of 4' of cover in the VELCO right of way. The minimum federal and state pipeline safety standards note that at least 3' of depth of cover be present at all locations along a gas transmission pipeline. VGS and VELCO had a separate MOU/MOA requiring 4' of cover in the VELCO right of way (ROW) to meet a specified loading standard. VGS has reported that they did not meet the 4' of cover in an area of the VELCO ROW as memorialized in the MOA/MOU, which was included in the Certificate of Public Good (CPG) granted by the Board.

I have reviewed data supplied by VGS that was generated by Mott McDonald for a generic soil type, but not the actual soil per se, that VGS says is consistent with the swampy area where the depth of cover was not met (see memorandum from Debra Bouffard to Tim Duggan dated June 21, 2017). Based on that data, the loading on the pipeline by heavy equipment does not impair the integrity of the pipeline.

Nevertheless, the Department did require that VGS have several additional safety requirements in place in those areas in the VELCO ROW that have less than 4' of cover:

1. VGS will install and maintain additional pipeline markers every 50' in this area;
2. VGS will mark and maintain these areas on their as built drawings;
3. VGS will verify that it is safe to cross the pipeline with heavy equipment prior to moving such equipment over the pipeline (see Debra Bouffard to Tim Duggan dated June 21, 2017); and
4. VGS will perform a depth of cover survey at least once approximately 2 years after the pipeline's commissioning in the affected area and report the results to the Department.

VGS must also perform quarterly patrolling per the VGS Operations and Maintenance Manual.

Incorporation of these additional requirements will provide a sufficient level of safety similar to having 4' of cover over the pipeline in my opinion.

Yours,



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