
STANDATA variance 23-PSV-001

Private Sewage

Effluent tanks

Date Issued: April 2023

Page 1 of 2

Purpose

This variance provides an alternative solution for effluent tanks used for timed dosing as prescribed in Article 6.1.1.2. of the Private Sewage Standard of Practice (SOP) 2021.

This alternate solution allows for time to revisit the new requirement article to ensure it accurately reflects system design requirements.

Issue

The change to Article 6.1.1.2. in the SOP 2021 requires an effluent tank to be sized at two times the average daily flow. This has been challenged, deeming the change unsubstantiated.

There is also a concern that a conflict exists between Clause 6.1.1.2. and Clause 2.2.2.5. of the SOP 2021.

Discussion

The following points and SOP references were taken into consideration while preparing the variance.

- The SOP 2015 required effluent tanks to have a capacity to manage the wastewater flow as required by design of the downstream component.
- Issues have not been identified with systems designed to Clause 6.1.1.2.1 of the SOP 2015.
- Clause 2.2.2.5. of the SOP 2015 and the SOP 2021 both speak to flow equalization and specifies a tank for that purpose to be 1.5 times average daily flow.
- Flow-equalization and time-dosing are both system design considerations and can be considered the same activity. They are not defined terms in the SOP.

Unless stated otherwise, all Code references in this STANDATA are to the Private Sewage Standard of Practice

Issued by the Provincial Private Sewage Administrator

[Original Signed]

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Code References

Private Sewage Standard of Practice 2021

6.1.1.2. Tank Capacity

- 1) Effluent tanks using timed dosing shall have a capacity of 2 times the average daily flow at maximum occupancy plus the allowance for any other high-volume fixtures.
- 2) Effluent tanks using demand dosing shall have the capacity required by the downstream component.
- 3) All effluent tanks shall include a volume for emergency storage after alarm conditions.

Private Sewage Standard of Practice 2021

2.2.2.5. Flow Equalization

- 1) In systems that require flow equalization¹
 - a) the capacity of the tank providing flow equalization shall be not less than the peak daily flow or 1.5 times the average daily flow volume, and
 - b) a pump control system shall be provided that will spread small doses of the daily wastewater volume over a 24-hour period.

Private Sewage Standard of Practice 2015

6.1.1.2. Tank Capacity

- 1) Effluent tanks shall have a capacity to manage the wastewater flow as required by design of the downstream component.

Application

This variance applies to the use of independent or integral effluent tanks for time dosing in a sewage treatment system design.

Variance

- The Alberta Private Sewage Systems Standard of Practice 2021, Article 6.1.1.2., is varied to recognize Article 6.1.1.2. of the SOP 2015.
- This variance applies until withdrawn by the Private Sewage Administrator.
- This variance provides approximately equivalent or greater safety performance with respect to persons and property as that provided for by the *Safety Codes Act*.

This VARIANCE is applicable throughout the Province of Alberta.

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