

PENTAGON ENGINEERING LTD.

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Date: January 6, 2017

City of Penticton AWWTP
459 Waterloo Ave
Penticton, BC

Via email: randy.craig@penticton.ca

Attention: **Randy Craig**

RE: Penticton AWWTP – Alternate Measures of Control (AMC), Primary Clarifiers (3)

Dear Mr. Craig,

The Armtec gates inlet and outlet are of adequate engineering, construction and maintenance to hold back the head applied to it for the time required to be in the confined space. The analysis of the gate as a control measure assumes that all gates leak. However, there is no expectation that a properly installed and maintained valve will fail catastrophically if no work is being performed on it which these gates are. It is recognized that systems will often permit some leakage; a means of pumping out the fluid should be undertaken. The upstream and downstream water should be continuously monitored and if the level rises too high that space should be evacuated.

Given these facts it is our opinion that the proposed AMC for entering the Primary Clarifiers (3) confined space is adequate. This AMC is adequate for two years and after that time it should be revisited to ensure its adequacy.

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Per:



Rob Linder, P.Eng.
Director