

Tech Note: Achieving capacity



A major advantage of Contain Enviro's Secondary Containment system is its ability to conform to a wide array of configurations to suit most every containment volume requirement.

One of several requirements of Alberta Energy Regulators (AER) Directive 55 states that all secondary containment systems provide sufficient containment capacity so that in the event of a tank leakage there is enough volume within the secondary containment system to prevent any hazardous liquids from leaving the site. AER Directive 55 reads;

A dike must be sized to have a volumetric capacity of not less than 110 per cent of the capacity of the tank when the diked area contains one tank. When the diked area contains more than one tank, not less than the sum of; a) the capacity of the largest tank located in the diked area, and b) 10 per cent of the greater of the capacity specified in (a), or the aggregate capacity of all other tanks located in the diked area;

Simply put, if there is only one tank inside a containment, 110% of the capacity of the tank volume must be provided by the secondary containment system. If there is more than one tank within a containment its either one of these two options (whichever is greatest); A) 100% of the largest tank, plus 10% of every additional tank inside that containment, or B) 110% of the largest tank. So for example if there was one very large tank inside a containment along with several smaller tanks, it may be that 110% of the large tank is actually a greater volume than 100% of the tank plus 10% of the smaller tanks. In this situation we would use 110% of the volume of the large tank to determine our secondary containment volume requirements.



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Contain Enviro Services' secondary containment system has several techniques to achieve any desired containment volume requirement. Contain Enviro's corrugated steel containment system is a modular system composed of three main components; a metal pad that engages the subgrade, a vertical exterior metal brace to provide support, and the corrugated metal wall sections to provide the actual containment. A geomembrane liner is then installed inside to complete the secondary containment system.

Panels simply need to be installed to achieve the length and width requirements of the containment. To meet the height requirements, Contain Enviro Services Ltd. stocks the corrugated steel wall panels in four standard wall heights; 22", 33", 44"and 57". The addition of every panel adds 9.4 feet of effective length to the perimeter of the containment system. This modular design also allows existing secondary containment systems to be easily added to, reduced or even moved.



By utilizing either straight or radius wall sections, available in 4 standard wall heights, most any configuration or containment volume can be achieved to meet the requirements on even the most congested sites.

Contact one of Contain Enviro Services four Alberta locations to discuss your secondary or primary containment project. We will suggest the most cost effective options to meet the requirements of your project.

Contain Enviro Services Ltd. is the leader in the supply and installation of corrugated steel containment systems for use as primary or secondary containment in a wide variety of challenging applications, and can provide you with the design support to deal with your most demanding application.

For More Information, Please Visit Our Website www.contain.ca