# MISSOURI
PST INSURANCE FUND

HOW DO I CALCULATE THE VOLUME OF MY CONTAINMENT DIKE?

SITUATION 1:

One tank in the diked area

*Note that the length, width and height of the dike must be measured on the inside, not the outside of the dike.

1)   Measure the length of the dike wall   _____ (in feet) = "a" in the formula
2)   Measure the width of the dike wall   _____ (in feet) = "b" in the formula
3)   Measure the height of the dike wall   _____ (in feet) = "c" in the formula
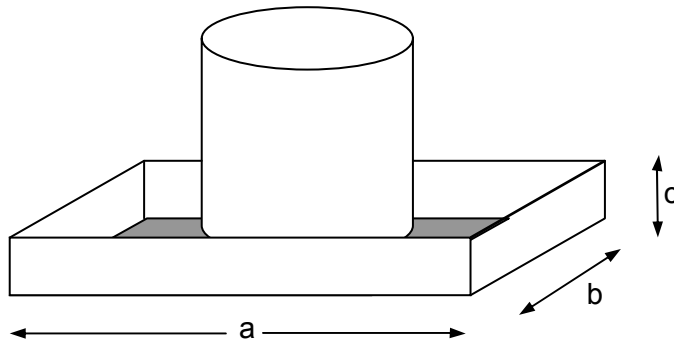
Step 1:   Multiply the size of your tank (in gallons) by the number indicated to calculate the minimum amount that your dike is required to hold in gallons:

   (size in gallons) _____ x 1.1 = _____

Step 2:   Multiply "a" times "b" times "c" to determine the volume of the dike in cubic feet:

   (a)_____ x _(b)_____ x _(c)_____ = _____cubic feet

Step 3:   Divide the answer from step 2 by the conversion factor below to convert the size of the dike in cubic feet to gallons:

   _____ / 0.1337 = _____gallons
   (answer from step 2)
   / 5.61458 = _____ barrels (oil)

Step 4:   Compare the answers in Step 1 and Step 3 to determine if the dike will hold 110% of the volume of the tank. **The answer in Step 3 must be equal to or greater than the answer in Step 1.**
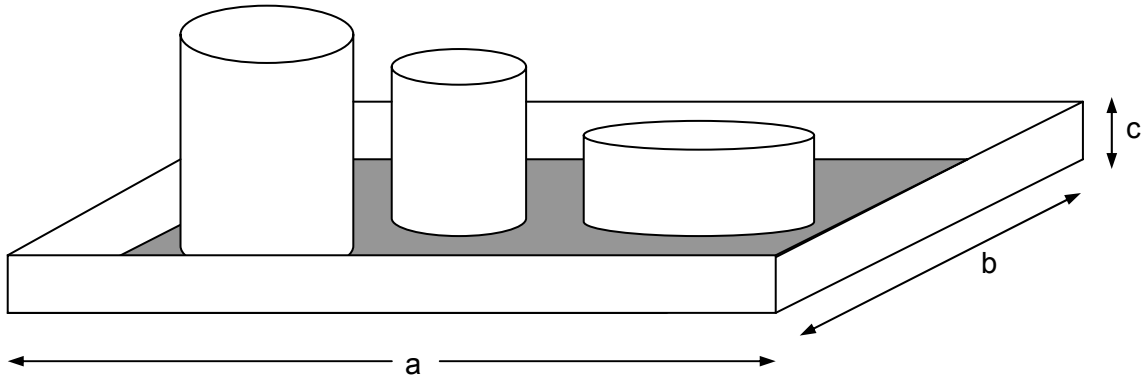
over

SITUATION 2:

More than one tank within the diked area

*Note that the length, width and height of the dike must be measured on the inside, not the outside of the dike.

1) Measure the length of the dike wall   _____ (in feet) = "a" in the formula
2) Measure the width of the dike wall   _____ (in feet) = "b" in the formula
3) Measure the height of the dike wall   _____ (in feet) = "c" in the formula

Step 1: Multiply the size of your largest tank (in gallons) by the number indicated to obtain the minimum amount that your dike is required to hold in gallons: (Please note that if you have 2 or more tanks siphoned together, you must use the total gallons of all tanks siphoned together.)

_____ x 1.1 = _____

Step 2: Multiply "a" times "b" times "c" to determine the containment volume of the dike in cubic feet:

  (a)_____ x (b)_____ x (c)_____ = (f)_____ cubic feet

Step 3: Determine the displacement of other tanks within the diked area by multiplying the height of the dike wall "c" x (½ the diameter of each additional tank within the dike)^2 x 3.14. This calculation must be repeated for each additional tank within the diked area.

  (c)_____ x ___(1/2 diameter of tank)^2___ x __3.14__ = _____

  (c)_____ x _____ x __3.14__ = _____

  (c)_____ x _____ x __3.14__ = _____

                                            Total = (h)_____

Step 4: Subtract the results from step 3 from the results in step 2 to determine the total available volume of the diked area in cubic feet.

  (f)_____ - (h)_____ = (i)_____
  (Step 2)   (Sum of Step 3)

Step 5: Divide the answer from step 4 by the conversion factor below to convert the size of the dike in cubic feet to gallons:

  (i)_____ / 0.1337 = _____ (gallons)
  (answer from step 4)   / 5.61458 = _____ barrels (oil)

Step 6: Compare the answers in Step 1 and Step 5 to determine if the dike will hold 110% of the volume of the tank. **The answer in Step 5 must be equal to or greater than the answer in Step 1.**

9/01