



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

EPA - REGION 10  
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WATER DIVISION  
DRINKING WATER/CELL WATER

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Correctional  
Insert - Between  
pages 8 & 9  
IN Directive

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Calculating Avoided Costs in UST Penalty Guidance  
FROM: David W. Ziegele, Director *D. W. Ziegele*  
Office of Underground Storage Tanks  
TO: UST/LUST Regional Program Managers

This memorandum is in response to a question raised by Region II concerning the formula for calculating avoided costs for UST violations. OSWER Directive 9610.12 titled, "U.S. EPA Penalty Guidance for Violations of UST Regulations," shows the formula for calculating avoided costs two different ways in the document. Written below is the correct formula to use. This is the version that appears in the examples at the end of the Penalty Guidance; the formula on page 9 of the text is incomplete as it omits a set of brackets and should not be used.

$$\text{Avoided Costs} = \left( \text{Avoided Expenditures} + \frac{\text{Avoided Expenditures} \times \text{Interest} \times \text{Number of Days}}{365 \text{ Days}} \right) \times (1 - \text{Marginal Tax Rate})$$

In using this formula, you will consistently arrive at values less than the originally avoided expenditures. This calculation accounts for the real value of the money not expended on compliance. Because this avoided expenditure is subject to taxes, the expenditures plus any interest it has accrued must be reduced by the amount of taxes theoretically due against this value. For example: \$100 of avoided expenditures for one year (at 10% interest) has a value of \$110. But this value must be reduced by the marginal tax rate. For this example, 20%. The final amount of avoided costs would be \$88 (\$110 - 20% = \$88).

Thus those who fall in a higher tax bracket pay less in avoided costs. This is because a larger company ideally will pay more in taxes on this asset of avoided expenditure, and therefore its real value is less. This may appear unfair to small companies because their ability to pay may be less, but this approach is consistent with the Agency's Policy on Civil Penalties and the RCRA Civil Penalty Policy for calculating avoided costs.

If you have any additional questions, please call Greg Waldrip at (703) 308-8892.

cc: UST/LUST Regional Branch Chiefs  
OUST Management Team