

Interoffice
Communication

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TGG: JEL: ERT: ~~MH~~: AJO: RF

FROM: T. G. Grumbles
DATE: September 14, 1990

XF: 1000

VISTA

SUBJ: ENVIRONMENTAL ENGINEERING GUIDELINES

Below are responses to your two questions on the subject guideline:

1. What's new in the guideline?

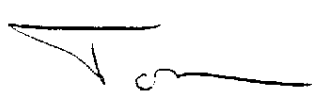
It should be noted, that while several recent construction projects have included many of the guideline elements, this guideline will document and provide consistency in design basis and elements for equipment covered by it's scope. Currently there are no written guidelines and no consistent principles for decision making on levels of protection needed in non-regulated areas. This guideline will be used as guidance and a learning tool for new engineers, just as all of the other engineering guidelines are used.

2. What's the cost impact of changes from today's practice?

Based on discussions with Houston engineering and our experience with the LAB stormwater tank project, the guideline would result in an 8-10% increase in cost over standard tank construction techniques.

It's harder to estimate the differential for piping and sump items but it is expected that items specific to those elements, although a smaller part of overall project costs, would be proportionally higher than 8-10%. A pipe-in-pipe construction could be double the cost of a standard single pipe run. I'll try to get a better estimate of these items.

The above is an attempt to answer your questions. Please let me know if you would like to further discuss the guidelines.



T. G. Grumbles

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