

Landmark Structures

ELEVATED TANK LIFE CYCLE COST - COMPARATIVE ANALYSIS PROGRAM

The examples provided are output from a computer program that is used to compare the cost of future maintenance of different elevated tank styles or sizes. The program calculates the net present value (NPV) of future maintenance. These costs represent the investment required today (given certain assumptions regarding average interest and inflation rates, coatings cost, etc.) to provide for maintenance requirements over the evaluated period.

The computer disk containing the Life Cycle Analysis program is located in the miscellaneous section of the data book, as well as in this section of the website. The following input parameters are flexible and the program may be used to provide a tailored assessment in accordance with individual requirements and experience.

Program Input Parameters

1. Life Cycle Evaluation Period - number of consecutive years maintenance will be evaluated.
2. Interest Rate (%) - average annual cost of money.
3. Inflation Rate (%) - average annual increase in product/services cost.
4. Coatings Schedule - the program differentiates between "repairs" (clean and provide an anchor profile to the old coating prior to recoat) and "repaint" (removal of old coatings to bare metal prior to recoat). Input the expected number of repairs (if applicable) before a repaint is necessary. Exterior, interior wet and interior dry coating areas are isolated in order to address different coating systems, exposure, costs and expected life.
5. Elevated Tank Configuration - to identify the elevated tank, the style, capacity, height (to high water level) and operating range are input.
6. Coating Areas – steel surface area must be entered for exterior, interior dry (interior of steel pedestal) and interior wet (tank interior surfaces).

Information regarding coating areas provided by Landmark for the composite style can be substantiated with an itemized breakdown (roof, vertical wall, cone, etc.). Information provided by Landmark for other tank styles are approximate, and should be confirmed by the manufacturers of these tanks with a detailed breakdown.

7. Coating Costs - present day costs for repair (paint over) and repaint (remove and replace coating) are input for the individual systems and tank styles. Note that some tank styles, such as those with multiple leg supports, may have a higher cost per square foot due to access and irregularity of surface.
8. Tank Cost - budget or bid price.

Comparative Analysis

Present value costs of maintenance are tabulated on page 2 and summarized on page 1. These are added to tank cost to determine the net present cost of the elevated tank, as evaluated over the life cycle period.