

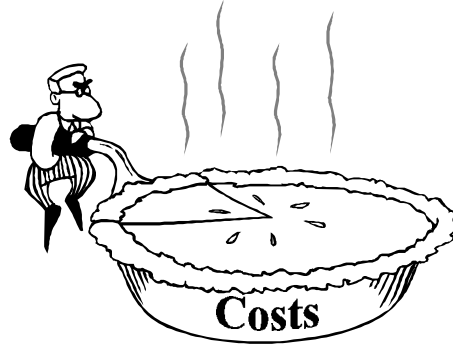
Section 1.7: Types of Costs/Lessons Learned



Section 1.7



Types of Costs/Lessons Learned





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This section will discuss the types of costs included in an estimate.

Notes / Discussion Points / Lessons Learned: _____

Section 1.7: Types of Costs/Lessons Learned



Types of Costs

- **Direct costs**
- **Indirect costs**
- **Escalation costs**
- **Contingency**
- **Net present value**

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Cost estimates are typically considered to comprise the following types of costs:

- Direct costs
- Indirect costs
- Escalation costs
- Contingency
- Net present value

Each of these types is discussed in detail on the following pages. All Field Offices treat these differently. Please follow the guidance provided at your site.

Notes / Discussion Points / Lessons Learned: _____

Section 1.7: Types of Costs/Lessons Learned



Direct Costs



Direct Costs Typically Include

- Labor
- Material
- Equipment
- Subcontracts



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- Direct costs are any costs that can be identified specifically with a particular project or activity, including salaries, travel, equipment, and supplies directly benefiting the project or activity.
- The Association for the Advancement of Cost Engineers, International (AACE) defines direct cost as "...costs of installed equipment, material, and labor directly involved in the physical construction of the permanent facility."

Notes / Discussion Points / Lessons Learned: _____

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Indirect Costs



Indirect Costs Typically Include

- Indirect labor
- Nonlabor overhead costs
- General and administrative costs
- Facilities
- Taxes
- Utilities
- Profit

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- DOE defines indirect costs as costs incurred by an organization for common or joint objectives and that cannot be identified specifically with a particular activity or project.
- AACE defines indirect costs as "...all costs which do not become a final part of the installation, but which are required for its orderly completion. It includes (but is not limited to): field administration, direct supervision, capital tools, some start-up costs, contractor's fees, insurance, taxes, etc."

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Escalation



- **Provision is made for increases in the cost as a result of continuing price changes over time.**
- **Cost estimates are usually done in “current” dollars and then escalated to the time the work will be accomplished.**

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Discussion Leader/Facilitator Notes: Escalation will be discussed in detail, including an example problem, in Section 1.8, Cost-Estimate Process (Detailed Estimate).

- Escalation is the provision in a cost estimate for increases in the cost of equipment, material, labor, etc., as a result of continuing price changes over time.
- Escalation is used to estimate the future cost of a project or to bring historical costs to the present.
- Most cost estimating is done in “current” dollars and then escalated to the time when the project will be accomplished.

Notes / Discussion Points / Lessons Learned: _____

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Contingency



- **Contingency is an integral part of the total estimated cost of a project.**



- **Project and operation estimates will always contain contingency.**

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Discussion Leader/Facilitator Notes: *Contingency will be discussed in detail, with examples, in Section 1.8, Cost-Estimate Process (Detailed Estimate).*

- Contingency is an integral part of the total estimated cost of a project. It has been defined as:
 - “[a] specific provision for unforeseeable elements of cost within the defined project scope. [Contingency is] particularly important where previous experience relating estimates and actual costs has shown that unforeseeable events which will increase costs are likely to occur.”
- This definition has been adopted by AACE. DOE has elected to narrow the scope of this definition and defines contingency as follows:
 - “Covers costs that may result from incomplete design, unforeseen and unpredictable conditions, or uncertainties within the defined project scope.”
 - “The amount of the contingency will depend on the status of design, procurement, and construction; and the complexity and uncertainties of the component parts of the project. Contingency is not to be used to avoid making an accurate assessment of expected cost.”

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- It is not DOE practice to set aside contingency for major schedule changes or unknown design factors, unexpected regulatory standards or changes, incomplete or additions to project scope definition, or Congressional budget cuts.
- Project and operations estimates will always contain contingency.
- Estimators should be aware that contingency is an integral part of the estimate.

Notes / Discussion Points / Lessons Learned: _____

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Net Present Value



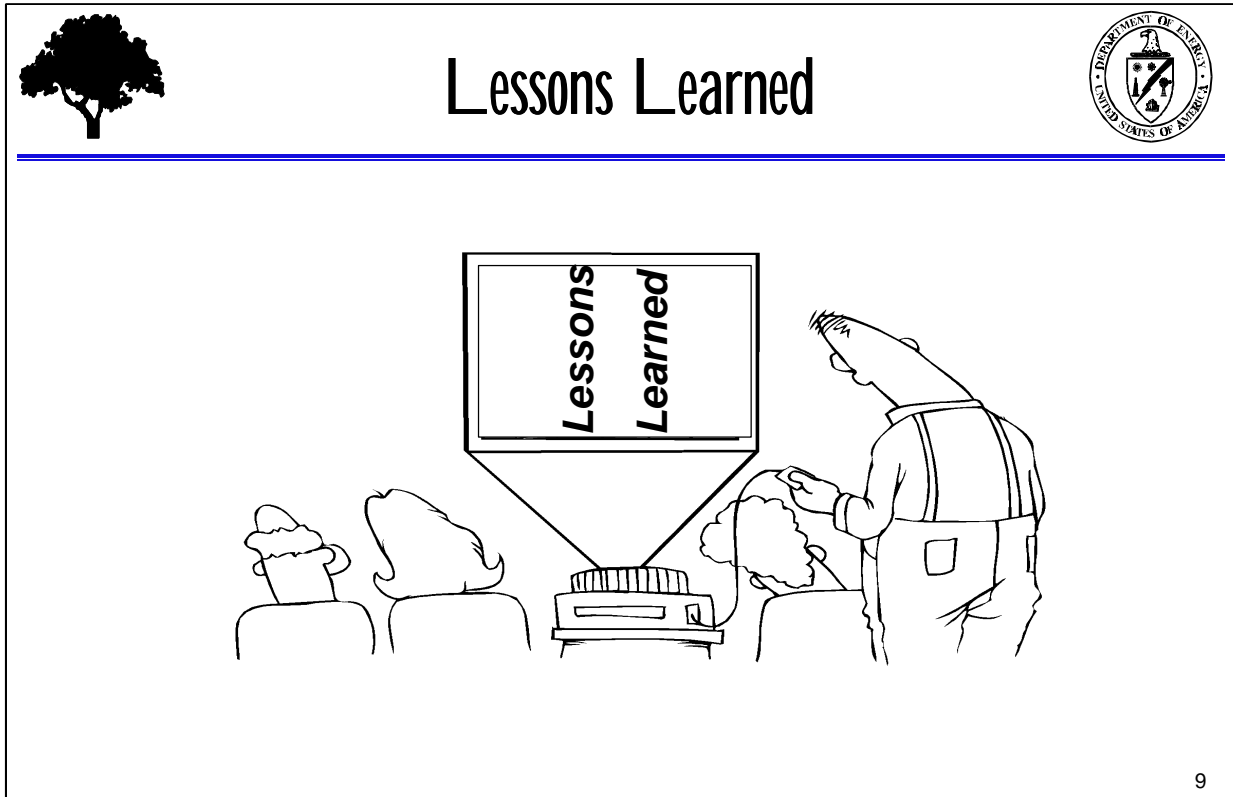
- **CERCLA requires the cost for Feasibility Study cleanup alternatives to be documented in “Net Present Value” dollars.**
- **“Net Present Value” dollars are basically the number of dollars you would have to put in an escrow account to have the sufficient funds to perform the cleanup action at the project’s future cleanup date.**
- **This is required as one of the nine criteria required by the Superfund Act to evaluate cleanup alternatives.**

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To arrive at net present value, the current dollar project costs are time-phased escalated and discounted to present. Escalation is based on DOE-ER escalation rates, and discounting is based on Superfund rates.

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1. Some estimators or managers have sought to **hide contingency estimates** to protect the project so that the final project does not go over budget because the contingency has been removed by outside sources. This practice is known as buried contingency. All internal and external estimators should refrain from burying extra contingency allowances within the estimate. A **culture of honesty** should be promoted so that it is unnecessary to bury contingency. In addition, estimators should be aware that estimate reviews will identify buried contingency. The estimate reviewer is obligated to remove buried contingency.

What have you experienced in this area and what can be done to prevent it?

2. How does your Field Office treat escalation and contingency?

Which is applied first?

What is management reserve?

Notes / Discussion Points / Lessons Learned: _____

