

# Value Management

## FESS Engineering Group

### Per DOE Order 413.3:

The value management methodology (also known as value analysis, value engineering, value planning, etc.) is a consideration in all capital asset acquisition process phases. **Value Management is defined as an organized effort directed at analyzing the functions of systems, equipment, facilities, services, and supplies for the purpose of achieving the essential functions at the lowest life-cycle cost consistent with required performance, quality, reliability and safety.**

**All projects shall include a value management assessment. The assessment shall be conducted as part of the conceptual design process to include making a determination of whether a formal value engineering study is required. Any decision to not perform a formal value engineering study shall be documented in the Project Execution Plan.**

# **Value Management**

## **FESS Engineering Group**

**For civil construction**, elements of Value Engineering include:

- **System design, material and equipment selection, and physical layout, all with eye toward;**
  - **Constructability;**
  - **Scheduling;**
  - **Energy Conservation;**
  - **Sustainability;**
  - **Best Value: Initial vs. Life Cycle Cost**

# **Value Management**

## **FESS Engineering Group**

### **Methodology**

**One or more of the following:**

- **Integrated Value Engineering**
- **Distinct Value Engineering Study**
- **Formal Value Engineering Study**

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## **FESS Engineering Group**

### **Integrated Value Engineering**

- **Ongoing throughout the design/construction process from pre-conceptual through final acceptance**
- **Built into design meetings, review process, watercooler discussions, construction meetings**
- **Feedback from customers & project management immediate – do we still meet requirements?**

# **Value Management**

## **FESS Engineering Group**

### **Distinct Value Engineering Study**

- **Focused effort**
- **Led by independent project engineer**
- **Internal reviewers**
- **Formal report**
- **Project Management involvement for buy-in**

# **Value Management**

## **FESS Engineering Group**

### **Formal Value Engineering Study**

- **During Title I**
- **Focused effort**
- **Certified leader**
- **Independent reviewers**
- **Formal report**
- **Project Management involvement for buy-in**

# **Value Management**

## **FESS Engineering Group**

### **Suggested Value Engineering for NovA**

#### **For Civil Construction:**

- **Integrated Value Engineering**
- **Distinct Value Engineering Study**
  - **Led by Tom Lackowski**
  - **Participation by various Fermilab engineers and project management**
  - **Formal report**

#### **For Other Work Packages:**

- **Value Management assessments to determine appropriate methodologies.**