

# **CHAPTER 15.3** **PRODUCTION COST ACCOUNTING**

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## **I. Introduction**

### **I.A. Purpose**

This chapter outlines the Department of Energy's (DOE or Department) policy for determining the cost of items produced by DOE, for purposes of pricing and accounting, when the production activity is not a final cost objective.

When production constitutes a separate final cost objective under a DOE contract, production cost will be the total cost of the relevant final cost objective.

### **I.B. Applicability**

DOE Management and Operating contracts and other contracts with the DOE Acquisition Regulation (DEAR) Clause 970.5232-3, *Accounts, Records, and Inspection*, or any successor clause(s). Departmental Elements may determine the applicability of this policy to other site/facility management contractors.

This chapter does not apply to products produced by DOE Federal entities. Federal entities should follow the guidance in Statement of Federal Financial Accounting Standard (SFFAS) 4, *Managerial Cost Accounting Concepts and Standards for the Federal Government*, to calculate product cost.

DOE contractors are required to follow the Cost Accounting Standards (CAS) codified in 48 CFR Part 9904. Specific implementation guidance for the application of CAS by DOE contractors is contained in Chapter 15.1 of the *DOE Financial Management Handbook*.

The National Nuclear Security Administration's (NNSA) *Stockpile Weapons, Components, and Nuclear Material Financial Accounting Guide* addresses stockpile and nuclear material activities and should be used in conjunction with the guidance in this chapter as appropriate.

## **II. Production Cost Accounting Guidance**

### **II.A. Elements of Product Cost**

#### **II.A.1. Direct Material**

The cost of all materials and stores received in a production area for fabrication or assembly into final products or components. This includes raw materials, transportation costs and other costs incurred in moving the materials to the production facility, feed materials transferred to a production process, process materials, and any other materials or stores received in a production area for fabrication or assembly into a final product or component.

#### **II.A.2. Direct Labor**

The cost of labor employed in the operation of a production process, or in the fabrication or assembly of weapons, weapon components or other products. For labor cost to be classified as direct, it must be possible to measure the cost applicable to a product or job.

#### **II.A.3. Other Direct Costs**

Elements of cost such as travel directly related to the product, specialized training, subcontract costs, and service charges such as utilities if directly metered.

#### **II.A.4. Indirect Costs**

Indirect Production Costs

The cost of all production support and superintendence. A proper allocation of the contractor's indirect costs typically allocated to all cost objectives at a particular site, such as General and Administrative expenses, should be included in the product cost.

#### **II.A.5. Costs Categorized as Direct or Indirect Costs**

Certain costs may be categorized as either direct or as indirect costs depending upon the specific circumstances. An example would be special tooling, the cost for tooling to fabricate or assemble unique weapons or weapons components. If specific to one component or weapons system then the cost should be treated as direct, but if fabricated for a production process including multiple weapons systems or components, the cost should be treated as an indirect cost with appropriate allocations.

### **II.B. Exclusions from Product Cost**

#### **II.B.1. Research and Development**

The cost of basic research and development activities performed under the operating activities of DOE, and the cost of engineering and design of weapons components and production processes for weapons and components. It includes preproduction, pilot production, and process/product engineering costs. The research and development process ends with the first production unit (prototype), and production begins with the first delivery unit. For that reason, first delivery unit costs are included in product cost.

#### **II.B.2. Standby Costs**

The costs incurred in conditioning production facilities for placement in standby status and maintaining these facilities in a shutdown mode for possible future use. Costs include such items as guard force activities, fire protection, electricity, heating, and general maintenance as well as a proper share of the contractor's General and Administrative expenses. Standby costs<sup>i</sup> are distinct

from excess capacity<sup>ii</sup> costs where production is occurring but at a capacity less than normal or other level of capacity.

#### **II.B.3. Excess Capacity Costs**

All costs that can be identified to the maintenance of an excess capacity at the production facility should be excluded from the product cost when a specific program has been designated to maintain and fund the excess capacity.

An example is where the deliberate sizing of the production facility is based upon projected levels of production over the short term in addition to maintaining capability for increased production should the need arise in the short or long terms. The costs incurred as a result of such deliberate plant/production facility sizing are costs that are more appropriately accounted for as period costs rather than production costs. Additionally, costs incurred that can be attributed to the existence of plant capacity, inherent to the original construction of the facility, that is excess to the current production requirements should also be excluded from the product costs.

Excess capacity costs must be supported by either historical cost data from a period of operation at full or normal capacity or an engineering determination of practical capacity. Excess capacity costs should be treated as period costs and should not be included in the cost of the product.

#### **II.B.4. DOE Federal Operation Costs**

The cost of DOE program management and support, such as program direction<sup>iii</sup> costs, is excluded from product cost.

#### **II.B.5. Startup Costs**

All operation costs associated with testing, training staff, and similar expenses involved in preparations for production at new facilities or reactivated standby facilities, is excluded from product cost.

#### **II.B.6. Transportation and Security Shipment Costs Applicable to Stockpile Transactions**

Costs of transporting weapons parts, components, and assemblies to and from stockpile, such as freight charges, salaries, and travel expenses of guards, etc., are excluded from product costs and are charged to the appropriate DOE program. The cost of preparing completed items for shipment to stockpile by a contractor is charged to product cost.

#### **II.B.7. Inventory Adjustments and Revaluations**

Inventory adjustments or revaluations not of a recurring nature which have been specifically authorized by the DOE CFO are excluded from product costs.

#### **II.B.8. Costs Related to Waste Materials**

This includes costs associated with the processing, conversion, segregation, and filtering of waste materials and the packaging, transportation, decontamination, and storage costs related to waste management recycling activities. Costs related to waste materials are excluded from product cost.

#### **II.B.9. Dismantlement and Disassembly**

Costs associated with the dismantlement and disassembly, including dismantlement and disassembly of weapons, weapon components, and weapon systems, are excluded from product cost.

#### **II.B.10. Depreciation and Imputed Interest**

Depreciation and imputed interest are excluded from product cost consistent with the definition of full cost contained in 42 USC 7259a, *Activities of Department of Energy facilities*. These costs are captured in the Federal Administrative Charge<sup>iv</sup>.

### **II.C. Transfer Prices for Work-in-Process**

Inventory/work-in-process moved within the production process as part of a production schedule is to be transferred at a value that includes all costs incurred to date in the process, direct costs, and indirect costs allocated to the product/component, including any capitalized costs. This transfer price, in addition to being the carrying value for the DOE inventory, will be picked up as the value of the direct material at the next DOE site in the production process. That site within the process will apply additional direct material, direct labor, and indirect allocations to the cost of the product or component. This process will occur within each step in the production complex.

### **II.D. Use of Standard Costing for Production**

#### **II.D.1. Use of Standard Costing**

Use of Standard Costing should be compliant with 48 CFR 9904.407, *Use of Standard Costs for Direct Material and Direct Labor*. This policy provides additional application guidance for DOE facilities.

For those production facilities that use standard costing, establishing the standard cost factors requires the development by the contractor of engineered standards in terms of material, labor, and predetermined overhead for all sub-parts, sub-assemblies, and assemblies. Details for the development of engineered standards are site specific and therefore are not prescribed in this policy.

#### **II.D.2. General Guidelines**

The standard cost should include the normal amount of material at its inventory valuation (purchased material or the standard of the

items in production), the required labor time and anticipated wage rates for each different operation, and a prorated amount of overhead/indirect costs.

#### **II.D.3. Reviewing Standard Costs**

An analysis of standard cost variances should be performed and used in establishing standard costs for the subsequent year. CAS 407(b)<sup>v</sup> specifies “standard costs and related variances are appropriately accounted for at the level of the production unit.”

Standard costs should normally be adjusted only at the beginning of the fiscal year; however, contractors may adjust the standards on a more frequent basis depending on the changes being made and the materiality of the changes.

#### **II.D.4. Disclosing Practices for Standard Costs**

Consistent with the requirements of CAS 407-40(c),<sup>vi</sup> contractors must disclose<sup>vii</sup> and consistently follow practices with respect to the setting and revising of standards, use of standard costs, and disposition of variances.

### **III. REFERENCES**

- III.A. 42 USC 7259a, *Activities of Department of Energy Facilities*
- III.B. 48 CFR Part 9904, *Cost Accounting Standards*
- III.C. 48 CFR 9904.407, *Use of Standard Costs for Direct Material and Direct Labor*
- III.D. Department of Energy Acquisition Regulation (DEAR) clause 970.5232-3, *Accounts, Records, and Inspection*
- III.E. Statement of Federal Financial Accounting Standard (SFFAS) 4, *Managerial Cost Accounting Concepts and Standards for the Federal Government*
- III.F. DOE Financial Management Handbook, Chapter 15.1 *DOE Application of Cost Accounting Standards*
- III.G. National Nuclear Security Administration’s (NNSA) *Stockpile Weapons, Components, and Nuclear Material Financial Accounting Guide*

## IV. ACRONYMS

CAS	Cost Accounting Standards
CFO	Chief Financial Officer
CFR	Code of Federal Regulations
DEAR	DOE Acquisition Regulation
DOE	Department of Energy
NNSA	National Nuclear Security Administration
SFFAS	Statement of Federal Financial Accounting Standards
USC	United States Code

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<sup>i</sup> Standby costs are the costs of maintaining the safety and stability of a production facility pending a restart of work.

<sup>ii</sup> FAR 31.205-17 -- Idle Facilities and Idle Capacity Costs (a) "Costs of idle facilities or idle capacity means costs such as maintenance, repair, housing, rent, and other related costs, e.g., property taxes, insurance, and depreciation. Facilities means plant or any portion thereof (including land integral to the operation), equipment, individually or collectively, or any other tangible capital asset, wherever located, and whether owned or leased by the contractor. Idle capacity means the unused capacity of partially used facilities. It is the difference between that which a facility could achieve under 100 percent operating time on a one-shift basis, less operating interruptions resulting from time lost for repairs, setups, unsatisfactory materials, and other normal delays, and the extent to which the facility was actually used to meet demands during the accounting period. A multiple-shift basis may be used in the calculation instead of a one-shift basis if it can be shown that this amount of usage could normally be expected for the type of facility involved. Idle facilities means completely unused facilities that are excess to the contractor's current needs. (b) The costs of idle facilities are unallowable unless the facilities (1) Are necessary to meet fluctuations in workload; or (2) Were necessary when acquired and are now idle because of changes in requirements, production economics, reorganization, termination, or other causes which could not have been reasonably foreseen. (Costs of idle facilities are allowable for a reasonable period, ordinarily not to exceed 1 year, depending upon the initiative taken to use, lease, or dispose of the idle facilities (but see 31.205-42)). (c) Costs of idle capacity are costs of doing business and are a factor in the normal fluctuations of usage or overhead rates from period to period. Such costs are allowable provided the capacity is necessary or was originally reasonable and is not subject to reduction or elimination by subletting, renting, or sale, in accordance with sound business, economics, or security practices. Widespread idle capacity throughout an entire plant or among a group of assets having substantially the same function may be idle facilities. (d) Any costs to be paid directly by the Government for idle facilities or idle capacity reserved for defense mobilization production shall be the subject of a separate agreement.

<sup>iii</sup> Program direction costs covers the salaries, benefits, contractual services, and travel of federal employees.

<sup>iv</sup> The federal administrative charge is a legally mandated fee typically three percent of a reimbursable work agreement. DOE policy regarding collection of the federal administrative charge is contained in DOE Order 522.1A, Pricing of Departmental Materials and Services

<sup>v</sup> 48 CFR 9904.407

<sup>vi</sup> 48 CFR 9904.407(c)

<sup>vii</sup> Relevant section of the CAS Disclosure Statement includes lines 2.4 and 2.6 of Form CASB DS-1. Other necessary disclosures should be added as needed to adequately describe the contractor's practices regarding the use of standard costs.