DATA ITEM DESCRIPTION

Preparing Activity: (D)OSD/PA&E/CAIG

Applicable Forms: DD Form 1921-3 (OMB Control No. 0704-0188); 30 hours

Use/Relationship: For background and detailed requirements related to Contractor Cost Data Reporting (CCDR), refer to DoD 5000.04-M-1, "Cost and Software Data Reporting (CSDR) Manual."

DD Form 1921-3, "Contractor Business Data Report," is used by contractors to submit: (1) direct and indirect actual cost data on Government contracts and (2) proposed direct and indirect cost data in response to Government solicitations.

This Data Item Description (DID) summarizes the format for DD Form 1921-3 and provides preparation instructions to support the specific data and frequency requirements specified in the contract. DD Form 1921-3 is related to the other CCDR forms, including DD Form 1921 "Cost Data Summary Report" (DI-FNCL-81565, current edition), DD Form 1921-1, "Functional Cost-Hour Report" (DI-FNCL-81566, current edition), and DD Form 1921-2, "Progress Curve Report" (DI-FNCL-81567, current edition). All forms are available for inclusion on any contract that meets the criteria specified in DoD Instruction 5000.02 or under other conditions specified for a particular contractual effort.

Requirements:

- 1. Reference documents.
 - a. DoD Instruction 5000.02, "Operation of the Defense Acquisition System," 8 December 2008. This instruction contains mandatory CCDR requirements.
 - b. DoD 5000.4-M, "Cost Analysis Guidance and Procedures," December 1992.
 - c. DoD 5000.04-M-1, "Cost and Software Data Reporting (CSDR) Manual," [most current].
 - d. DD Form 2794, "Contract and Software Data Reporting Plan." Commonly referred to the CSDR Plan, a completed DD Form 2794 must be approved by the Office of the Secretary of Defense (OSD) Cost Analysis Improvement Group (CAIG) Chair.
- 2. Format. Use DD Form 1921-3 and the detailed preparation instructions below. Templates are available from the Defense Cost and Resource Center (DCARC) Web site (http://dcarc.pae.osd.mil). DD Form 1921-3 must be submitted as a stand-alone Excelcompatible file or as a DCARC approved Extensible Markup Language (XML) file by report upload to the DCARC's secure Web site. Uploading requires the use of an ECA Certificate or other PKI system certified by DoD for encryption and digital signature. See the DCARC Web site for instructions.

3. *Implementation*. The DD Form 1921-3 requirement applies to both prime contractors and subcontractors that have other CCDR requirements.

Preparation Instructions:

- 1. General Instructions.
 - a. The Contractor Business Data Report is to be prepared by and for the business entity (e.g., plant, site, or business unit) responsible for submitting the Forward Pricing Rate Proposal (FPRP) representing the basis for Forward Pricing Rate Agreement (FPRA) negotiations with the government. This business entity is referred to as the "FPR unit" in the Contractor Business Data Report and in the remainder of this DID. In the absence of a FPR requirement, the term "FPR unit" should be interpreted for reporting purposes as "business unit" as defined in the FAR.
 - b. Reports are to be submitted annually, within 60 days subsequent to the end of the contractor's fiscal year.
 - c. The data requested in Sections A and B must be provided for the Prior Year, for the Current Year, and for Future Years. "Current Year" refers to the company's most recently completed fiscal year. "Prior Year" is the year preceding the Current Year, and "Future Year" is any year subsequent to the Current Year. For purposes of this report, submit actual costs for the Current Year and the Prior Year. Submit estimated costs for all Future Years. The number of Future Years must reflect the number of years contained in the most current FPRP or FPRA document. In the absence of these documents or if the FPRP or FPRA contains less than three future years, estimates must be provided for three future years. Complete a separate copy of the first page (i.e., Sections A and B, with accompanying metadata) for each fiscal year. Note: Page 2 (sections C through F, and Remarks) of the DD Form 1921-3 need be provided only once for the entire submission.
 - d. Mark the security classification of the report as "Unclassified" in the space provided on the upper left and lower right of the form. However, if the report is classified, contact the DCARC for special processing instructions.
 - e. Common data elements (i.e., metadata, quantities, dollars, and hours) used across the DD 1921 series of reports for a specific contract must agree as appropriate. Report all currency throughout this form in U.S. Dollars in thousands, rounded to the nearest tenth. Report all hours throughout this form in thousands, rounded to the nearest tenth.
- 2. Specific Instructions: Metadata.
 - a. <u>Item 1. Contractor Name/Address</u>. Enter the name, division (if applicable), and address (including ZIP code) of the reporting contractor.

- b. <u>Item 2. FPR Unit</u>. Enter the FPR unit reflected in the report (see General Instruction 1.a. above).
- c. <u>Item 3. Implementing Contract Number</u>. Enter the number of the contract containing the DD 1921-3 reporting requirement.
- d. <u>Item 4. Data Period</u>. Check the appropriate box for the fiscal year reported on the page (see General Instruction 1.c. above).
- e. <u>Item 5. Fiscal Year</u>. Enter the company's year designation (e.g., 2008) for the fiscal year reported on the page. (See Item 4 above.)
- f. <u>Item 6. Dates in Fiscal Year</u>. Enter the start date and end date of the fiscal year reported on the page. Use the appropriate numeric format. For example, December 31, 2008, would be shown as 20081231.
- g. <u>Items 7 through 11</u>. Enter the following information for the person to contact for answers to any questions about entries on the DD Form 1921-3: Last Name, First Name, and Middle Initial (Item 7); Department (Item 8); Telephone Number, including Area Code (Item 9); Email Address (Item 10); and Date Prepared (Item 11). For Item 11, enter the date the report was prepared, using the appropriate numeric format. For example, December 31, 2008, would be shown as 20081231.
- 3. Specific Instructions: Reported Data.
 - a. <u>Section A</u>. Direct Costs by Program
 - i. Column a. Program Name. For prime contractors, enter the name given to the Major Defense Acquisition Program (MDAP) as specified on the DoD MDAP list the Under Secretary of Defense (Acquisition, Technology and Logistics) annually publishes (e.g., "AESA–Active Electronically Scanned Array Program"). For subcontractors, enter the type of the product being developed or procured (e.g., radar), and include the official military designation for the end item (e.g., "AN/APG-81 Radar"), if known.
 - (1) Lines 1 10. Program / Project. List all major DoD programs/projects for the fiscal year being reported. For purposes of this report, a major DoD program is one that constitutes at least 10 percent of the overall DoD business in the reporting FPR unit for the fiscal year. If no DoD program exceeds the 10 percent threshold, list the top 10 DoD programs. Indicate (using a single letter in parentheses) whether the program/project is for firm business on an established contract (F) or for anticipated follow-on work (e.g., new business) (A) in the "A/F" column. If a given program/project is split between firm and anticipated, show the estimated percentage for the firm portion (e.g., 60% F).
 - (2) <u>Lines 11-13</u>. Line 11 (Other DoD Effort) is for all remaining DoD effort and projected new DoD business that is not associated with

the major DoD programs/projects listed in lines 1-10. Line 12 (Other Government Effort) is for work for government agencies other than the DoD that is being performed in the same FPR unit. Line 13 (Commercial Effort) is for commercial work that affects the calculation of DoD overhead rates in the FPR unit. Using the reporting instructions identified for lines 1-10, indicate whether these aggregate programs/projects are for firm business on established contracts or for anticipated follow-on work (e.g., new business).

- ii. <u>Column b. Contract Number</u>. Enter the Contract number for each major DoD program. For programs with multiple contracts, enter "Multiple" in column b and submit an attachment to the Contractor Business Data Report (1921-3) that lists all contract numbers with clear reference to the corresponding program name and Section A line number.
- iii. Column c. Equivalent Units. Enter the number of equivalent units produced over the fiscal year for the programs listed in column (a). Equivalent units are the number of units of that item that could have been produced with the reported material, workers, hours, and dollars. Express the number as a decimal to the nearest tenth (e.g. 4.3 units). The method used to calculate equivalent units must be analytically based, consistently applied over time, and can be shown to produce a reasonably accurate and reliable calculation for estimating purposes. Explain your methodology in the "Remarks" section on Page 2 of the Contractor Business Data Report (1921-3).
- *iv.* Column d. Buyer. Enter the procuring department (e.g., Army, Navy, Air Force, NASA) for each program listed in (a).
- v. Columns e-n. Direct: Cost / Hours / Manpower. Enter in the appropriate columns the Workers, Dollars, and Hours used as a base in computing overhead rates. In columns e, h, l, enter the average number of direct employees for the year reporting. Average is defined here as the sum of the numbers of employees on the program at the end of each month divided by the number of months being reported. If the contractor has an additional functional category not covered by Engineering, Manufacturing Operations, or Materials, then "Other" (Columns l, m, and n) must be utilized and the other functional categories identified in "Remarks."
- vi. <u>Line 14. Total Direct Cost and Hours Base</u>. Enter the total Dollars/Hours for the FPR unit under the appropriate Category (Engineering, Manufacturing Operations, Materials, or Other).
- vii. <u>Line 14a. Total Direct Workers</u>. Enter the average number of direct employees in the FPR unit for the year reporting. Average is defined here as the sum of the numbers of employees at the end of each month divided by the number of months being reported. Note: this line includes all direct workers in the FPR unit and may not equal the sum of the rows.

b. <u>Section B</u>. Indirect Cost Categories

- i. Columns o-z. Indirect: Cost / Hours / Manpower. Indirect workers/dollars/hours for Engineering, Manufacturing Operations, Materials, Other, and G&A are to be reported in accordance with the contractor's accounting system as documented in the Cost Accounting Standards (CAS) Disclosure Statement. Columns o, r, and v are average numbers of workers, to be calculated as described in subsection 3.a.vii. above.
- ii. <u>Lines 15 26</u>. Enter costs in each Indirect Cost Category, allocating costs according to the definitions listed below under "Indirect Cost definitions." For each cost category, costs are reported at the summary level as labeled in lines 15 through 26. If overtime premiums, shift premiums, or employee benefits for direct labor are recorded in indirect costs, report these amounts separately in the Remarks section of Page 2.
- *Line* 27. Total Indirect Cost and Hours. Enter the totals of lines 15 through 26 in each Column p, q, s, t, u, w, and x.
- *iv.* Line 28. Total G&A Cost and Hours. Enter total of lines 15-26, Columns y and z.
- v. <u>Line 29. Indirect / Direct Cost Rate</u>. For Column p, calculate by dividing Column p, line 27 by Column f, line 14; for Column s, calculate by dividing Column s, line 27 by Column i, line 14; for Column u, calculate by dividing Column u, line 27 by Column k, line 14; for Column w, calculate by dividing Column w, line 27 by Column m, line 14. If another basis is used to calculate overhead, provide the method and calculation under "Remarks" section located on page 2 of the Contractor Business Data Report.
- vi. <u>Line 30. G&A Rate / (Direct + Indirect)</u>. For Column y, calculate by dividing G&A costs on Line 28 by the total of all direct (line 14 columns f, i, k, and m) and indirect costs (line 27 columns p, s, u, and w) for the year. If another basis is used to calculate G&A, provide the method and calculation under "Remarks" section located on page 2 of the Contractor Business Data Report.

c. Section C. Facility-wide Specifics

- *i.* <u>FPR Unit % of Full Production Capacity</u>. Full production capacity represents the maximum output that the FPR unit is capable of producing during the current fiscal year. Divide actual output from the current fiscal year reporting period by the maximum output to calculate % of Full Production Capacity.
- *ii.* Number of Shifts. Enter the average number of shifts operating in the FPR unit for the current fiscal year. Average is defined here as the sum of the numbers of shifts at the end of each month divided by the number of months being reported. If shift scheduling is not uniform within the FPR unit, provide additional explanation in the Remarks section.

iii. Method of Calculating "FPR unit % of Full Production Capacity." Use this area to define the method used in calculating "FPR unit % of Full Production Capacity." Percentage is to be calculated based on the current utilization/configuration of the plants in the FPR unit.

d. Section D

- *i.* <u>Direct Labor Rates (Functional Categories). Lines 1 2c.</u> Report average data by quarter for the contractor's current fiscal year, the prior year (as an average), and as projected for each of the next two future years.
 - (1) <u>Column a. Workers</u>. Direct workers are those whose time is properly chargeable to the labor categories in Lines 1 through 2c. Enter the average number of direct workers in the FPR unit that are included in the labor rates for engineering and manufacturing operations (tooling, quality control, and manufacturing) in the FPR unit. See subsection 3.a.vii. above for the definition of average.
 - (2) <u>Column b. Hours</u>. Enter the total direct labor hours in the FPR unit for direct workers in the labor categories. Include overtime hours in total direct labor hours.
 - (3) <u>Column c. Basic Rate Dollars</u>. Enter the basic average rate in the FPR unit for direct workers in the labor categories. To calculate this rate, divide the total direct labor dollars, exclusive of overtime premium and employee benefits, by the total direct labor hours.
 - (4) Column d. Effective Rate Dollars. Enter the effective average wage rate in the FPR unit for direct workers in the labor categories. Calculate this rate in the same manner as for Column c, above, except with overtime premium included in direct labor dollars. For this entry, any overtime premium for direct labor included in overhead is to be broken-out of overhead and combined with total direct labor dollars to provide the effective rate.

e. Section E

i. Total FPR Unit Revenue (Sales). Total sales in thousands of dollars for current and prior years.

f. Section F

- *i.* Organizational Changes. Use this area to report significant organizational changes to the FPR unit that have occurred and are projected to occur, for each year of the reporting period.
- *ii.* Accounting Changes. Use this area to report significant accounting changes to the FPR unit that have occurred and are projected to occur, for each year of the reporting period. Identify the specific effects on cost or data (i.e. hours,

workers) categories on the 1921-3 that were and will be impacted by the accounting change(s).

g. Remarks. Note any relevant information that could be useful in the interpretation of the data provided in this report, including any explanations specified in the items above. If applicable, also provide details on the composition of Line 11 ("Other DoD Effort"), Line 12 ("Other Government Effort"), or Line 13 ("Commercial Effort") if the line accounts for 15% or more in any of the dollar or hour totals in Line 14. Provide details on the composition of Line 25 ("Other Miscellaneous") if the line accounts for 15% or more in any of the dollar or hour totals in Lines 27 and 28.

Indirect Cost Definitions Indirect cost has been categorized and defined as follows:

- Indirect Labor. Includes all labor cost classified as indirect with the exception of labor
 cost related to building and equipment maintenance and future business. The average
 number of indirect employees in the FPR unit for each year is reported. Average is
 defined here as the total of the number of employees at the end of each month divided by
 the number of months being reported.
 - a. <u>Salaries/Wages</u>. Industrial engineering, production engineering, machine tool and die setting, inspection, contract liaison support, quality review, artists, instructors, draftsmen, scrap handlers, laboratory attendants, test technicians and planners, inventory takers, field service, metallurgical, traffic, dispatching, general service, requirements yardmen, timekeeping, idle time, other indirect wages.
 - b. <u>Supplemental Allowances</u>. Overtime premiums, shift premiums, management incentive compensation, cost of living allowance, test flight bonus.
 - c. <u>Apprentice and On-the-Job Training (OJT)</u>. Apprentice labor, training direct workers, trainee labor, employee training, instruction time, student labor, basic job training.
 - d. <u>Administration and Supervision</u>. General staff and clerical, factory clerical, clerical and secretarial, department administration, shop clerical, factory administration, foreman's clerk, finance department, purchasing, legal department, supervision, unit managers, shop supervision, officers, executives.
 - e. <u>Other</u>. Please specify additional categories associated with Indirect Labor not listed above Example: Commissions and bonuses, union business, committee bargaining time.
- 2. <u>Employee Benefits</u>. Includes cost of fringe benefits provided all employees, both direct and indirect.
 - a. <u>Paid Absences</u>. Vacation payments, payments for disability leaves, payments for military leaves, bereavement, election day and injury, sick leave, holiday pay.

- b. <u>Employee Insurance</u>. Employee group insurance, hospital and medical plan, dental plan, disability insurance, workers' compensation insurance, income security plan.
- c. <u>Savings Retirement Plans</u>. Employee investment savings plan, thrift plan, employee savings plan, retirement plan, contributions-savings-stock program, basic benefit plan, retirement income plan.
- d. <u>Education</u>. Educational program, tuition refund, educational scholarships, advanced scientific education, evening scholarships, supplemental educational expense.
- e. Other. Please specify additional Employee Benefits not included above Example: Welfare and recreation, employee purchase discounts, cafeteria, employee morale, unemployment benefit plan, income extension aid, extended layoff plan, separation allowance plan, severance pay.
- 3. <u>Payroll Taxes</u>. Includes payroll taxes on the earnings of all employees, both direct and indirect.
 - a. <u>Federal Insurance Contributions Act (FICA)</u>. Social Security taxes including Medicare.
 - b. <u>Federal and State Unemployment</u>. Federal unemployment compensation taxes, state unemployment compensation taxes, unemployment insurance taxes, unemployment excise taxes.
 - c. <u>Composite Payroll Taxes</u>. FICA and unemployment taxes, payroll taxes and insurance, payroll taxes.
 - d. <u>Other</u>. Please specify additional payroll taxes not listed above Example: State disability compensation tax.
- 4. <u>Employment</u>. Includes cost of recruiting new employees and transfer of present employees
 - a. Employee Advertising. Help wanted advertising, recruitment advertising.
 - b. Recruitment Travel. Pre-employment travel, recruitment travel.
 - c. <u>Employee Relocation</u>. Employee transfers, relocation allowance, employee relocation, pre-employment relocation.
 - d. Composite Employment. Recruitment expense, relocation and recruitment expense.
 - e. <u>Other</u>. Please specify additional categories not listed above Example: Prospective employee investigations, miscellaneous employment expense.
- 5. Communication/Travel. Includes costs associated with communications and travel.
 - a. <u>Telephone</u>. Telephone expense.

- b. <u>Postage</u>. Postage expense.
- c. <u>Travel</u>. Traveling expense, travel and living expenses, employee travel.
- d. <u>Corporate Aircraft</u>. Company airplane expense, company airplane operating expenses, repair and maintenance company aircraft, depreciation flying equipment.
- e. <u>Other</u>. Please specify additional categories not listed above Example: Company car expense, transportation supplies, transportation expense, miscellaneous transportation.
- 6. <u>Production Related</u>. Includes the costs of supplies and services which are closely related to the manufacturing process.
 - a. <u>Expendable Tools and Equipment</u>. Perishable tools, expendable tools, special tools, perishable equipment, expense tools, tool material, dies rework tooling, minor shop property.
 - b. <u>Freight</u>. Outbound transportation, freight express and demurrage, freight and handling, shipping expense, shipping supplies, packaging and crating.
 - c. <u>Material Handling</u>. Stockroom, material handlers, stock handling, receiving, storerooms, internal trucking.
 - d. <u>Manufacturing Supplies/Services</u>. Testing supplies, processing supplies, shop supplies, indirect material, general supplies, industrial supplies-services, purchased services, operating supplies, manufacturing services, service materials and expense, lubricants and cutting compounds, manufacturing engineering supplies, industrial gases, tool crib supplies.
 - e. <u>Product-Servicing</u>. Policy and warranty adjustments, service to customers, field service expense.
 - f. Tool Handling. Tool room, tool crib attendants, crib and materials, master crib.
 - g. <u>Medical Services</u>. Dispensary supplies, medical supplies and services, first aid supplies.
 - h. <u>Other</u>. Please specify additional categories not listed above Example: Zero defects promotion expense, manual and parts books, laboratory supplies, support operations, safety supplies, personnel clothing and equipment, flight operations.
- 7. <u>Facilities</u> Building/Land Includes all costs associated with the use of land and buildings which are part of the operation of the FPR unit.
 - a. <u>Depreciation and Amortization</u>. Depreciation of buildings, amortization of land improvements, normal depreciation, amortization of lease-hold improvements.

- b. <u>Rentals</u>. Government facilities, rent-real estate, rent-buildings and land, rent-real property, building rental.
- c. <u>Maintenance</u>. Cleaners and janitors, cleaning services, cleaning supplies, building maintenance, land improvements maintenance, ground and outside facilities, maintenance materials, grounds-outside services, grounds and roads.
- d. <u>Insurance</u>. Building insurance, insurance fire and liability, property insurance, building and equipment insurance, general insurance.
- e. <u>Utilities</u>. Electric light, electric power, heat, water, sewage, gas, steam, plant fuel, power plant, air conditioning, sundry utilities
- f. <u>Property Taxes</u>. State and local property taxes, real estate taxes, real and personal property taxes, county real estate taxes.
- g. <u>Plant Rearrangement</u>. Rearrangements and new installations, rearranging, plant rearrangement expense, plant layout, rearrangement material, plant rearrangement labor.
- h. <u>Security</u>. Security services, plant protection supplies, plant defense, security personnel, employee badges, security guards.
- i. Other. Please specify additional facility building and land costs not included in the above categories Example: plant fire protection.
- 8. <u>Facilities Furniture/Equipment</u>. Includes cost associated with the use of furniture and equipment.
 - a. <u>Depreciation and Amortization</u>. Depreciation furniture and office equipment, depreciation machines and equipment, depreciation of furniture and fixtures, portable tools depreciation.
 - b. <u>Rentals</u>. Equipment rent, master equipment leases, rent machinery and equipment.
 - c. <u>Maintenance</u>. Machinery and equipment maintenance, tool maintenance, furniture and equipment maintenance, test equipment, laboratory equipment, production tooling, maintenance equipment outside services, maintenance labor machinery and equipment.
 - d. <u>Information Technology Services</u>. Programming, system development, rent EDP equipment, data processing, data processing supplies, data supplies rental.
 - e. <u>Other.</u> Please specify additional costs associated with facility furniture and equipment costs not included in the above categories Example: low value furniture and equipment, minor property office.
- 9. <u>Administration</u>. Includes cost of supplies and purchased services associated with general administration.

- a. <u>Office Supplies</u>. Stationary, printing and office supplies, personnel supplies, administrative supplies.
- b. <u>Reproduction/Engineering Supplies</u>. Drafting and engineering supplies, inside printing and reproduction, blueprint and photo, blueprinting, printing, printing and office expense.
- c. <u>Professional Services</u>. Consulting and other professional services and fees, purchased drafting and engineering services, legal fees, outside professional services.
- d. Contributions. Donations, contributions.
- e. <u>Other taxes</u>. Sales and use taxes, state and local income taxes, state franchise taxes, miscellaneous taxes, other licenses and fees.
- f. <u>Dues, Memberships and Subscriptions</u>. Membership dues, organization memberships, dues and subscriptions, books and periodicals, library expense, publications.
- g. <u>Conventions and Meetings</u>. Business conferences, technical conferences, meetings, conventions.
- h. <u>Office Services</u>. Outside office expense, office services, office services temporary.
- i. Other. Please specify additional administrative costs not included in the above categories Example: product liability insurance, surety bond insurance, bank fees, employee communications media, company newspaper.
- 10. <u>Future Business</u>. Including costs of maintaining and increasing company's share of the market and enhancing its corporate image.
 - a. <u>Bid and Proposal</u>. Proposal and bidding expense, contract bidding expense, specifications, proposals and reports.
 - b. <u>Independent Research and Development</u>. Product development, experimental work, independent development, research expense.
 - c. <u>Advertising</u>. Consumer influence media, space advertising, advertising magazines, product advertising.
 - d. Other Promotions. Please specify additional costs associated with marketing not included in the above categories Example: Sales promotion, presentations, public relations, demonstrations, exhibitions expense, entertainment, demonstration and indoctrination expenses, exhibit models.
- 11. Other Miscellaneous. Includes all costs which do not relate to any other major cost mode.
 - a. <u>Facilities Capital Cost of Money</u>. Represents the imputed cost determined by applying a cost-of-money rate to facilities capital employed in contract performance

- according to Cost Accounting Standard 414, "Cost of Money as an Element of the Cost of Facilities Capital."
- b. <u>Assessments and Transfers</u>. Division assessments, inter-division expense transfer, services charged by other divisions.
- c. <u>Employee Awards</u>. Employee suggestion awards plan, employee suggestions, awards to employees.
- d. <u>Corporate Allocations</u>. General company allocations, central office expenses, corporate office expense, director's fees, corporate office overhead, corporate management allocation.
- e. <u>Patents and Royalties</u>. Patent expense, royalty expenses, royalty and license expense.
- f. Other. Please specify additional miscellaneous costs not included in the above categories Example: bad debts, miscellaneous expense, interest, motor vehicle license, sundry service expense, unclaimed checks written off.
- 12. Credits. Includes allowances of cash, goods, or services.
 - a. <u>Transfers</u>. Inter-division expense transfer, services performed for other divisions.
 - b. Cash Discounts. Discounts received for early payment.
 - Other Credits. Please specify additional credits not included in the above categories –
 Example: allocations out, year-end accounting adjustments inapplicable to other
 categories.

Functional Category Definitions:

- 1. Engineering. A functional category that includes the effort and costs expended in the scientific exploration, study, analysis, design, development, evaluation, and redesign of a specific task or WBS element. Engineering also includes preparation of specifications, drawings, parts lists, and wiring diagrams; technical coordination between engineering and manufacturing; coordination of suppliers; planning for and scheduling of tests; analysis of test results; reduction of data; and preparation of reports. It also includes the determination and specification of requirements for reliability, maintainability, and quality control, as well as logistics and training engineering efforts such as training system and manual development, support equipment design and development, logistics support analysis and other support engineering efforts.
- 2. <u>Manufacturing Operations</u>. A functional category that includes the effort and costs expended in converting raw materials into finished items and such other elements as tooling and quality control efforts and costs.
 - a. <u>Manufacturing</u>. A cost element of the Manufacturing Operations functional category. Manufacturing includes the effort and costs expended in the fabrication, assembly, integration, and functional testing of a product or end item. It involves all the processes necessary to convert raw materials into finished items. For consistency across programs, manufacturing excludes manufacturing engineering effort and costs expended in preproduction planning, production engineering, and production planning, these costs should be included under tooling.
 - b. Quality Control. A cost element of the Manufacturing Operations functional category that includes the nonrecurring effort and costs to design and implement necessary quality controls for the manufactured item or product to meet prescribed standards, and recurring effort and costs expended in checking, physically inspecting, measuring, testing, or otherwise verifying that products and services conform to established technical requirements and that satisfactory performance is achieved.
 - c. <u>Tooling</u>. A labor cost element of the Manufacturing Operations functional category that includes the effort and costs expended to design, acquire, manufacture, maintain, or replace original equipment and manufacturing aids. Where applicable, tooling includes manufacturing engineering and planning effort and costs expended in preproduction planning, production engineering, and production planning.
 - d. Tooling Material & Equipment. A material cost element of the Manufacturing Operations functional category that includes the cost associated with materials and equipment used in the manufacture of dies, jigs, fixtures, molds, gauges, handling equipment, work platforms, and test equipment for the fabrication and testing of the specific WBS Reporting Element. It also includes the cost of tools the reporting contractor normally purchases that require negligible in-house effort to assemble into the final tool configuration,

such as special welding heads, X-ray heads, attaching fixtures, control panels, and consoles.

- 3. <u>Materials</u>. A functional cost category that includes the basic elements, constituents, or substances of which something is composed. These elements are incorporated into the finished product or end-item or are consumed in the course of producing the finished product or end-item. Materials includes direct costs for raw materials, purchased parts, purchased equipment, and direct-reporting subcontracts, as well as indirect costs for material handling/overhead.
 - a. <u>Material Handling/Overhead</u>. A cost element of the Materials functional category. It comprises the portion of indirect costs attributable to procured or subcontracted products, including the cost of purchasing, expediting, and storing materials, parts, equipment, and assemblies.
 - b. <u>Purchased Parts</u>. A cost element of the Materials functional category that includes items that are discrete components used in an upper-level assembly. Purchased parts are distinguished from purchased equipment by their relatively lower cost and complexity. Examples of purchased parts include fasteners, clips, clamps, nuts, bolts, washers, nails, screws, valves, and plumbing and electrical fittings and fixtures.
 - c. <u>Purchased Equipment</u>. A cost element of the Materials functional category that includes assembled items and subassemblies designed to be incorporated with other components into a finished product. Purchased equipment is distinguished from purchased parts by its relatively higher cost and complexity. Examples of purchased equipment for large weapon systems are electronics, multipurpose hydraulic and pneumatic pumps, motors, generators, air-conditioning equipment, batteries, landing gear, instruments, and pedestals.
 - d. <u>Raw Materials</u>. A cost element of the Materials functional category that includes items that are crude, semi-fabricated, or partially processed materials or components that have not yet been made into a definite functional item or configuration.

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