



Department of Energy  
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MEMORANDUM FOR DISTRIBUTION

FROM: J. E. SURASH *J. E. Surash*  
HEAD OF CONTRACTING ACTIVITY  
OFFICE OF ENVIRONMENTAL MANAGEMENT

SUBJECT: Section H Clause, "Cost Reporting for the Environmental Cost Analysis System" and Section J Clause, "Data Requirements for Environmental Cost Analysis System"

The Office of Environmental Management (EM) has experienced challenges in its ability to complete projects on time and within budget. Through a root cause analysis, EM determined that an insufficient cost estimating capability as one of the top five reasons that EM was unable to complete projects within costs and on schedule. It was clear that high-quality cost estimates for construction and environmental cleanup projects was needed. A system was needed that would provide an historical cost database, that could be used to develop credible, well-documented, accurate and comprehensive cost estimates.

The Environmental Cost Analysis System (ECAS) provides an integrated system for accumulation, integration, analysis and corporate access to actual costs and other relevant historical information from historical completed projects in an accessible format. Individuals may retrieve ECAS information for use in a variety of EM-authorized purposes. These purposes may include development of independent cost estimates and reviews, analysis of projects, development of parametric factors or estimating relationship, development of benchmarks, and like-for-like project analysis.

In order to achieve the goal of creating a historical cost database that could be used to develop credible, well-documented, accurate and comprehensive cost estimates, the attached H clause and corresponding section J document shall be included in all current and new procurements for capital asset projects and operations activities that include Environmental Restoration Services; Facility Deactivation, Decommissioning, Decontamination, and Demolition and Removal Services; and Waste Management Services.

The draft of these clauses and provisions represent a collaborative effort among field and headquarters personnel. They were coordinated with site Procurement Directors, Mission Unit Office Directors, and the Department of Energy Office of Acquisition and Project Management. We appreciate the advice and comments that resulted in this final product.

The point of contact for this action is Melissa Rider, Acting Director, Office of Procurement Planning, (202) 586-5821.

Attachments:

1. Section H Clause
2. Section J Clause

Distribution

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## **H.XX Cost Reporting for the Environmental Cost Analysis System (ECAS)**

### **A. Applicability and Purpose**

The Environmental Cost Analysis System (ECAS) provides an integrated system for accumulation, integration, analysis, and corporate access to actual costs and other relevant historical information from completed projects in an accessible format. ECAS is an "internet-accessible" database that contains descriptive project information, actual cost data, and both primary and secondary project or operational parameters. ECAS does not include proprietary or business sensitive data. ECAS has been developed with the flexibility to include costs for both Capital Asset Projects and Operating Activities with defined key performance parameters for specific EM Line item and Cleanup contracts.

The Contractor shall report project data for ECAS as stated herein. The report shall consist of a digital file readable by, or converted to, files in either Microsoft Excel® or Microsoft Access®. Project narrative information shall be submitted as a Microsoft Word® document. Contractor's key performance parameters (KPPs) are achieved and reports shall be submitted within 30-days of achieving the KPP. Capital Asset Projects are required to have a closeout report at CD-4 per DOE O 413.3B. Contractor should provide a copy of the closeout report as a "pdf" file to EM-53, EM-53 will provide the file to the EMCBC for inclusion in ECAS.

### **B. The Environmental Cost Analysis System (ECAS)**

ECAS is a SQL® database with eighty five discrete data fields designed to facilitate capture of project identification and descriptive information, product-oriented work breakdown structure (WBS) elements, work activities using a common EM corporate structure, cost data segregated by element of cost, primary project parameters based on the project type, and secondary project information designed to facilitate further project characterization and overall database reporting. The WBS, work activities per planning and work packages, and associated actual cost information is typically available directly from the contractor accounting system. Project identification and primary parameter information are often available from other project reporting information (e.g., key performance parameters (KPPs) and DOE Project Assessment and Reporting System (PARS II)). Project narratives, project parameters and secondary project characteristics are developed by personnel familiar with the work covered by the project.

Section B.1 through B.5 of this clause defines the information and format that the contractor is required to report for ECAS. Compliance with these provisions will be verified as part of the Performance Measurement Baseline (PMB) Validation associated with the each contract.

[http://www.erncbc.doe.gov/Content/Office/ECASUsers\\_Manual\\_Rev0\\_3-15-10.pdf](http://www.erncbc.doe.gov/Content/Office/ECASUsers_Manual_Rev0_3-15-10.pdf)

#### **B.1 Project Identification**

EM has implemented a corporate work breakdown structure (CWBS) which is captured in ECAS. The CWBS standardizes the structure used to categorize like scopes of work, facilitate

Analytical Building Blocks (ABB(s)) and comparative analyses and simplify budget preparation. The CWBS follows the EIA-748-C, *Earned Value Management Systems*, Section 3, for organization and definition of work, and allows EM to interface with site-specific work breakdown structures, maintain historical costs by Program Baseline Summary (PBS), and analyze the program using multiple attributes.

Capital Asset Projects as defined in DOE O 413.3B, will be reported for entry in ECAS using the PARS II information at the project level. If lower level WBS items are included in PARS II reports, or, a site specific WBS is used than the PARS II or site information will be cross walked to apply the ECES structure for information below the project level for entry into ECAS.

## **B.2 Site Work Break Structure (WBS)**

The site WBS structure will interface with the EM CWBS in ECAS starting at "Site WBS Level 5". This information captures data below the Project level in the WBS structure.

## **B.3 Work Activity**

The work activity is the lowest level at which costs are typically collected (e.g., the control account, cost account, planning package, work package, etc.). The activity is normally accompanied with a descriptor and is a standard component of accounting systems. The requirement of this section is that the contractor assigns Environmental Cost Element Structure (ECES) codes to each work activity for which costs are collected. The ECES is a comprehensive hierarchical list of elements (tasks, items, or products) required to accomplish an environmental management project. ECES levels will be applied for all activities at or below the project level or at ECAS Level "\_6\_Comp\_T\_A\_Elmnt".

The American Society for Testing and Materials (ASTM) E2150, "Standard Classification for Life-Cycle Environmental Work Elements, Environmental Cost Element Structure (ECES)", establishes the first two levels of the cost structure. The DOE Adjunct provides more detailed elements and definitions of the ECES at Levels 3, 4, and 5 that are needed to support DOE EM projects.

## **B.4 Cost Data**

Cost data is entered into ECAS at the "\_6\_Comp\_T\_A\_Elmnt" Level. Data should be provided at the lowest level identified in B.3. FAR Subpart 15.4 prescribes the cost and price negotiation policies and procedures for pricing negotiated prime contracts (including subcontracts) and contract modifications, including modifications to contracts awarded by sealed bidding. FAR Subpart 15.408, Table 15-2, "*Instructions for Submitting Cost/Price Proposals When Certified Cost or Pricing Data Are Required*" includes instructions applicable to data reported for ECAS. Direct cost data does not include general and administrative, or fee values.

### **B.4.1 Direct Cost**

- *Labor* - Typical EM projects have a large percentage of costs attributable to labor. ECAS stores summary data as either "professional" or "craft" labor. Professional labor

means all Fair Labor Standards Act (FLSA) "exempt" labor categories (i.e., Project Management, Scientist, Engineers, Project Controls, Scheduler, Miscellaneous technical Professionals, etc.). Craft labor means FLSA non-exempt labor categories (carpenters, electricians, plumbers, pipe fitters, laborer, equipment operators, etc.). Direct labor cost includes salaries and wages, payroll taxes and insurance, fringe benefit (paid time off, health care, etc.), and other site specific labor fringe markups, Total hours and total direct cost for professional and craft labor need to be reported for ECAS.

- *Material-* Provide a consolidated priced summary of individual material quantities included in the items being used in the project, including raw materials, parts, components, assemblies, and services to be produced or performed by others. Direct costs should include material, handling and/or delivery, and sales tax.
- *Equipment-* Provide a consolidated priced summary of individual equipment costs included in the items being used in the project (pumps, motors, cranes, control panels, transformers, engineered systems, etc.) including purchase and delivery cost, or rental cost as applicable, parts, components, assemblies, sales tax where applicable, and services to be produced or performed by others during equipment installation. Direct equipment costs that are allocated to a project should reflect hourly charges (cost of ownership or lease), FOGM, etc. Operating costs should be included in Labor cost.
- *Subcontract-* Subcontractor cost data must be accurate, complete and current as of the date of final price agreement given on the prime contractor's Certificate of Current Cost or Pricing Data. The prime contractor is responsible for updating a subcontractor's data. If a subcontractor meets the criteria as a "major" subcontractor as defined in each contract, then the subcontractor will be required to report costs to the same level of detail as the prime contractor.

#### ***B.4.2 Other Direct Cost Elements***

List all other costs not otherwise included in the categories described above (e.g., special tooling, travel, computer and consultant services, preservation, packaging and packing, spoilage and rework, and Federal excise tax on finished articles).

#### ***B.4.3 General & Administrative Expense***

"General and administrative (G&A) expense" means any management, financial, and other expense which is incurred by or allocated to a business unit and which is for the general management and administration of the business unit as a whole. G&A expense does not include those management expenses whose beneficial or causal relationship to cost objectives can be more directly measured by a base other than a cost input base representing the total activity of a business unit during a cost accounting period.

#### ***B.4.4 "Indirect" Cost Elements***

EM "project-type" work associated with specific, tangible efforts as captured in the ECAS projects is supported by numerous activities not directly associated with a given effort or project.. "Indirect cost" means any cost not directly identified with a single final cost objective,

but identified with two or more final cost objectives or with at least one intermediate cost objective. "Indirect cost rate" means the percentage or dollar factor that expresses the ratio of indirect expense incurred in a given period to direct labor cost, manufacturing cost, or another appropriate base for the same period (see also "final indirect cost rate").

#### **B. 5 Non- Cost Data**

Data collected in these fields is used to identify factors that may have an effect on costs. These can include type of facilities, contaminants, regulatory and stakeholder environments, technical issues, and other factors that may drive costs higher or lower. ECAS includes:

- Primary Parameters
- Waste Parameters
- Supplemental D&D Parameters
- Other Project Descriptors

Project narratives submitted with ECAS data should clearly explain how the reported direct and indirect costs are calculated and applied in the database.

## J.XX Data Requirements for the Environmental Cost Analysis System (ECAS)

The following requirements apply to ECAS reporting required by H.XX. The Contractor shall report project data for ECAS which shall consist of a digital file readable by, or that can be converted to, files in either Microsoft Excel® or Microsoft Access®. Project narrative information shall be submitted as a Microsoft Word® document. Contractors shall submit ECAS reports in accordance with the schedule in H.XX.

ECAS is a SQL® database with eighty five discrete data fields designed to facilitate capture of project identification and descriptive information, work breakdown structure (WBS) elements, work activities using a common structure, cost data segregated by element of cost, primary project parameters based on the project type, and secondary project information designed to facilitate further project characterization and overall database reporting. Reporting details for each ECAS data elements are detailed in the following table. The ECAS User Manual contains additional details regarding ECAS and is available at:

[http://www.emcbc.doe.gov/Content/Office/ECASUsers\\_Manual\\_Rev0\\_3-15-10.pdf](http://www.emcbc.doe.gov/Content/Office/ECASUsers_Manual_Rev0_3-15-10.pdf)

**ECAS Data Fields**

ECAS TERM		Description
Project Identification	WBS LEVEL 1	This is currently a default to "EM"
	WBS LEVEL 2	This is the EM Site where work is performed (i.e., ANL (Argonne National Lab), BNL (Brookhaven National Lab), INL (Idaho National Lab), OR (Oak Ridge), SR (Savannah River); RL (Richland), etc., etc., in accordance with the EM CWBS Structure). This is provided by DOE.
	WBS LEVEL 3	This includes the Site and Program Baseline Summary (PBS) identifier and is provided to the contractor by DOE.
	WBS LEVEL 4	The Unique Project ID established by EM consistent with the CWBS. In accordance with the Implementing Guidance Memorandum from EM-2 dated August 26, 2010, DOE EM has implemented a corporate work breakdown structure (CWBS). The CWBS follows the American National Standards Institute (ANSI) Standard 748-A, Section 3. DOE will provide the appropriate CWBS information to be used by the contractor.
	PROJECT NAME	This is typically, but not necessarily, the EM defined project name associated with the CWBS at the ECAS Project Level. ECAS projects are typically reported in PARS II and may be part of a parent project. The project name is provided by DOE and is unique to each ECAS project.
	PROJECT DESCRIPTION	Brief single paragraph describing the project identified and work scope completed and reported. This is developed by the contractor and should capture the start and end state for work completed under the contract.
	PARAMETER PROJECT TYPE	Identify whether the project being reported is one of (4) project types: <ul style="list-style-type: none"> <li>• 1) "Building/ Structure D&amp;D";</li> <li>• 2) (ER) "Environmental Restoration";</li> <li>• 3) or Nuclear Material Operations (NMO), or;</li> </ul>

ECAS TERM		Description
		<ul style="list-style-type: none"> <li>4) (WMO) "Waste Management Operations" based on the work associated with the majority of costs for the particular project. This is identified by the contractor.</li> </ul>
	PROJECT_TYPE_DETAIL	For D&D and Waste Management Projects: Specific types of buildings or structures decommissioned, or waste management or nuclear operations performed, as prescribed in the ECAS User's Manual.
	ER_TYPE	In-situ, ex-situ, buried, soil and groundwater; characterization, long term management and S&M
	ER_TYPE_DETAIL	Specific technologies or process used to address ER_TYPE, as prescribed in the ECAS User's Manual.
Site WBS Information	WBS_LEVEL_5_THRU_8	These fields are used to store the site or contract specific WBS identifiers and represent drilling to three levels below the defined project level. These are unique to each site. The Work Activity resides at or below this level.
	WBS_DESCRIPTION	This corresponds to the narrative description for the lowest WBS level identified. This is only used at ECAS Level " 6 Comp T A Elmnt" and is established by the contractor.
	ECAS_LEVEL	This refers to the level of the data being reported. Projects may be grouped based on their complexity into "parent" projects. All "parent" projects are reported as ECAS Level " 4_T_A_Proj"; All projects are reported at ECAS Level " 5_T_A_Proj"; All data reported which is part of a project is reported at ECAS Level " 6 Comp T A Elmnt"
	SUM_OR_CE	This refers to how the numeric data is derived. All ECAS Level "4_T_A_Proj" and " 5_T_A_Proj" information is calculated based on a summation of lower level elements. ECAS Level " 6 Comp T A Elmnt" entries are direct contractor entries.
	SUBPROJECT_NAME	This field is optional and is used to identify subprojects typically represented as a phase, or other portion of an ECAS Level " 5_T_A_Proj" project and will depend on how these projects are executed.
	PHASE_START_DATE	This reflects the start date of the work being reported from the contract in the following format "mo/day/year" or "xx/xx/xxxx"
	PHASE_END_DATE	This reflects the end date of the work being reported from the contract in the following format "mo/day/year" or "xx/xx/xxxx"
Environmental Cost Element Structure (ECES)	ECES_LEVEL_1	<p>ECES level 1 represents the project life cycle (LC) phase per ASTM 2150. The ASTM 2150 LC definitions do not correlate directly to the Project Life Cycle Phases "CD-0 thru CD-4" that are spelled out in DOE O 413.3B. The ECES phase will vary depending on how the project is executed. If each phase is a discreet procurement action then:</p> <ul style="list-style-type: none"> <li>Phase "1"-Assessment Phase: This phase includes the assessment and inspection of the site, and preparation of site inspection report. Specific activities comprise of the following. <ul style="list-style-type: none"> <li>CERCLA Preliminary Investigation/Site Investigation (PA/SI)</li> <li>RCRA Facility Assessment (RFA)</li> <li>Preliminary Planning for waste and special material operations</li> <li>Pre-Decommissioning actions and planning</li> </ul> </li> </ul>



ECAS TERM	Description
	<ul style="list-style-type: none"> <li>• Phase "2" –Studies: This phase includes characterization, investigations, risk assessment, development and evaluation of treatment or remedial options, and treatability studies. For example, the CERCLA Remedial Investigation and Feasibility Studies (RI/FS), RCRA Facility Investigation/Corrective Measure Study (RFI/CMS), and Pre-conceptual Design/Research and Development are conducted in this phase.</li> <li>• Phase "3" -Design phases: This phase consists of engineering design and pre-construction activities of treatment or remediation alternatives. Examples of phase three activities include: CERCLA Remedial Design (RD), RCRA - Design portion of Corrective Measures, Waste Management facility design, and decommissioning and dismantlement design.</li> <li>• Phase "4" -Capital Construction: This phase includes construction of selected treatment or remediation alternatives. Phase 4 costs also include start-up and testing, but exclude all operations. Examples of items in this phase include: CERCLA Remedial Action (RA), RCRA Corrective Measure activities, Waste Management Facility construction, and D&amp;D construction.</li> <li>• Phase "5" -Operations and Maintenance: This phase includes all operations and maintenance activities for the selected treatment or remediation alternatives. Phase 5 ends when clean-up or waste treatment goals are met. Examples of tasks for this phase include: CERCLA technology or remediation operations and maintenance; RCRA facility O&amp;M; Waste Management facility O&amp;M, and D&amp;D O&amp;M.</li> <li>• Phase "6" -Long Term Surveillance and Maintenance: Phase 6 starts when operations have ceased or maintenance of a shut-down facility begins. Examples of phase 6 elements include: post closure surveillance and long term monitoring and on-site storage/disposal facility.</li> <li>• "8" is used for Cross Cutting for program management where costs cannot be segregated into discreet projects. Phase 8 is not an environmental life-cycle element. This Phase is meant to capture program wide or cross-cutting costs that cannot be readily separated into a specific project. This element is also used to indicate those cost that are expended over all the life-cycle phases of a project.</li> </ul> <p>For most EM Capital Asset projects, ECES Level 1 should equal "4" as the typical CD-2/3 Capital asset project includes study, design, construction, and start-up operation and maintenance for the first year. Contractor shall identify the appropriate ECES Level 1.</p> <p>Operations activities (i.e., ER treatment system operations or Waste Management operations) will use ECES Level 1 equal to 5. Surveillance and Maintenance or Long-term Management projects/programs will use ECES Level 1 equal to 6.</p>

ECAS TERM		Description
	ECES_LEVEL_2	<p>ECES level 2 represents a major work element under the LC Phase. These elements will usually correlate with a WBS element and typically include:</p> <ul style="list-style-type: none"> <li>• ".01" is used for Program Management Support and Infrastructure,</li> <li>• ".02" is used for "Project Management and Support",</li> <li>• ".03" is used for "Preparation of Plans and Specifications",</li> <li>• ".04" is used for "Project Studies and Design",</li> <li>• ".05" is used for "Site Work",</li> <li>• ".06" is used for "Surveillance and Maintenance"</li> <li>• ".07" is used for "Investigations and Monitoring/ Sample collection"</li> <li>• ".08" is used for "Sample Analysis"</li> <li>• ".09" is used for " Sample Management/Data Validation/Data Evaluation"</li> <li>• ".10" is used for "Treatability/Research And Development"</li> <li>• ".11" is used for "Treatment Plant/Facility/Process"</li> <li>• ".12" is used for "Storage Facility/Process"</li> <li>• ".13" is used for "Disposal Facility/Process"</li> <li>• ".14" is used for "Ordnance And Explosives (OE) Removal And Destruction"</li> <li>• ".15" is used for "Drums/ Tanks/ Structures/ Miscellaneous Removal/ Abatement"</li> <li>• ".16" is used for "Air Pollution/Gas Collection And Control"</li> <li>• ".17" is used for "Surface Water/ Sediments Containment, Collection, And Control"</li> <li>• ".18" is used for "Groundwater Containment, Collection, Or Control"</li> <li>• ".19" is used for "Solids/S Oils Containment (E.G., Capping/ Barrier) Collection Or Control"</li> <li>• ".20" is used for "Liquid Waste/ Sludge (E.G., UST/AST) Containment, Collection, Or Control"</li> <li>• ".21" is used for "IN-Situ Biological Treatment"</li> <li>• ".22" is used for "EX-Situ Biological Treatment"</li> <li>• ".23" is used for "IN-Situ Chemical Treatment"</li> <li>• ".24" is used for "EX-Situ Chemical Treatment"</li> <li>• ".25" is used for "IN-Situ Physical Treatment"</li> <li>• ".26" is used for "EX-Situ Physical Treatment"</li> <li>• ".27" is used for "IN-Situ Thermal Treatment"</li> <li>• ".28" is used for "EX-Situ Thermal Treatment"</li> <li>• ".29" is used for "IN-Situ Stabilization/Fixation/ Encapsulation"</li> <li>• ".30" is used for "EX-Situ Stabilization/Fixation/Encapsulation"</li> <li>• ".31" is used for "Facility Decommissioning And Dismantlement"</li> <li>• ".32" is used for "Material Handling/Transportation"</li> <li>• ".33" is used for "Disposal"</li> <li>• ".34" is used for "Air Emission and Off-Gas Treatment"</li> <li>• ".91, .92, .9x, etc." Is used for an element not otherwise identified in the ECES structure.</li> </ul>

ECAS TERM	Description	
	<p>The ECES has also identified lower elements in Level 3 through 6 which allow for drilling down to specific work activities under the major element identified in ECES Level 2. All projects entered into ECAS should have data at least to ECES Level 3 and contractor accounting systems should capture data to at least this level. Because of the ECES structure, D&amp;D (under .31 "Facility Decommissioning And Dismantlement") projects will require codification to at least Level 4. Waste Management projects/programs (under .11 "Treatment Plant/Facility/Process") will likewise require codification to at least ECES Level 4. The complete list of ECES codes in the DOE Adjunct to ASTM 2150 is available through the EMCBC Office of Cost Estimating &amp; Project Management Support, Applied Cost Engineering (ACE) Team site at:</p> <p>" <a href="http://www.emcbc.doe.gov/Office/ACETeam">http://www.emcbc.doe.gov/Office/ACETeam</a>"</p> <p>Users should go to the listed internet and select the "ECES Download" tab. Additional information is also available at this location regarding ECES levels and definitions, and the DOE Adjunct.</p> <p>Use the "Other" element ending with the value ".9x" under the application ECES code if a work activity does not have a direct corollary, and renumber the ".9x" to the next available unique number.</p>	
<b>ECES_DESCRIPTION</b>	This field is used to capture the ECES description of the lowest ECES level captured as stated in the "All Level" listing of ECES codes.	
<b>Labor Hours and Cost Data</b>	<b>BUDGET_HOURS</b>	This should represent the total budget labor hours per the approved Contract Performance Baseline (CPB) for the project.
	<b>BUDGET_COST</b>	This should represent the total estimated cost per the approved Contract Performance Baseline (CPB) for the work completed for the project under the contract.
	<b>PROF_LABOR_HOURS</b>	These are the actual total hours for "non-craft" labor used during performance of the contract. These will include hours for both FLSA "exempt" and "non-exempt" employees and can also include employees covered under collective bargaining agreements. Hours for all employees not otherwise designated as "craft" labor should be included here.
	<b>PROF_LABOR_COST</b>	This is the total "fully burdened" cost for all "PROF_LABOR_HOURS" reported. This generally excludes profit or fee, and indirect costs applied to labor that are captured in other fields.
	<b>CRAFT_LABOR_HOURS</b>	These are the actual total hours for "craft" labor used during performance of the contract. Craft labor typically falls under Davis-Bacon Act requirements, is typically FLSA "non-exempt", and at most EM sites are also affected by collective bargaining agreements. Hours for all employees not otherwise designated as "professional" labor should be included here.
	<b>CRAFT_LABOR_COST</b>	This is the total "fully burdened" cost for all "CRAFT_LABOR_HOURS" reported. This generally excludes profit or fee, and indirect costs applied to labor that are captured in other fields.

ECAS TERM		Description
Non-Labor Elements of Cost	<b>MATERIALS_ SUPPLIES_ COST</b>	Prime Contractors and Major subcontractors are required to report their hours charged to the project per the contract by element of cost. This field reflects all costs charged for materials and supplies consumed during the completion of work under the contract.
	<b>EQUIPMENT_ RENTAL_ COST</b>	Prime Contractors and Major subcontractors are required to report their hours charged to the project per the contract by element of cost. This field reflects all costs charged for equipment rental during the completion of work under the contract.
	<b>PROF_ SERVICES_ HOURS</b>	Major subcontractors are required to report their hours charged to the project per the contract. This field reflects all hours charged for professional services by major subcontractors.
	<b>PROF_ SERVICES_ COST</b>	This field reflects all labor and non-labor costs completed by a subcontractor providing professional services that are charged to the project.
	<b>CONST_ SUBCONT_ HOURS</b>	Major subcontractors are required to report their hours charged to the project per the contract. This field reflects all hours charged for worked performed by major subcontractors.
	<b>CONST_ SUBCONT_ COST</b>	This field reflects all labor and non-labor costs completed by a subcontractor, or completed work other than professional services that are charged to the project.
	<b>FUEL_ UTILITIES_ COST</b>	Prime Contractors and Major subcontractors are required to report their hours charged to the project per the contract by element of cost. This field reflects all costs charged for fuel and utility costs incurred during the completion of work under the contract.
	<b>OTHER DIRECT COSTS</b>	Prime Contractors and Major subcontractors are required to report their hours charged to the project per the contract by element of cost. This field reflects all costs charged for other direct costs not otherwise captured during the completion of work under the contract.
	<b>GENERAL_ ADMIN</b>	"General and administrative (G&A) expense" means any management, financial, and other expense which is incurred by or allocated to a business unit and which is for the general management and administration of the business unit as a whole.
	<b>PROFIT_ OVERHEAD_ COST</b>	This field reflects the profit or fee paid to the contractor attributable to completion of the work required under the contract. This cost should be the portion allocated to each reportable project.
	<b>CALC_OR_ ACTUAL</b>	Actual reported costs is required, and the contractor should identify whether or not the "GRAND_TOTAL_COST" is calculated from summing lower level costs reported, or is based on actual reported costs.
	<b>COST_ PEDIGREE</b>	The best sources of data are original documents and databases, such as cost accounting databases that were used to develop the actual costs reported to DOE. The validity of such data is considered to be at the highest level. Even so, it should be confirmed against contractual documents to ensure that it represents the correct scope of work. This should be identified as "high, medium, or low" based majority of costs meeting these criteria
<b>Indirect Costs</b>	<b>INDIRECT_ DISTRIBUTED_</b>	ECAS "Distributed" costs consist of management or support costs that the site has collected that is applicable to a specific

ECAS TERM		Description
	<b>COST_L5</b>	ECAS Project or subproject. These costs may also be distributed across elements of the project.
	<b>INDIRECT_DISTRIBUTED_COST_L4</b>	These "Distributed" costs consist of management or support costs that the site has collected at a level above the ECAS Project or subproject (i.e., it is "distributed" over several projects). These costs are most easily addressed as costs that may be pro-rated against direct costs in ECAS Projects or subprojects.
	<b>INDIRECT_DISTRIBUTED_COST_SITE</b>	"Indirect cost" means any cost not directly identified with a single final cost objective, but identified with two or more final cost objectives or with at least one intermediate cost objective. "Indirect cost rate" means the percentage or dollar factor that expresses the ratio of indirect expense incurred in a given period to direct labor cost, manufacturing cost, or another appropriate base for the same period (see also "final indirect cost rate").
	<b>INDIRECT_DISTRIBUTED_COST_WASTE</b>	"Waste costs" consist of the costs of on-site waste management, on-site treatment/ transportation, and disposal costs for those wastes generated by an ECAS Project. In most multi-project DOE sites a central materials disposition or waste management organization handles the waste generated by an EM project. The purpose is to treat the waste disposition cost as a project cost allocated appropriately to the correct ECAS project
<b>Primary Parameters</b>	<b>PARAMETER_UOM</b>	This field captures the primary parameter unit of measure and is reported at ECAS level "_5_T_A_Proj". Facility D&D projects will have a primary parameter of square feet (SF) for the gross square feet of the facility. Waste type projects will have volumetric parameter (cubic feet (CF), cubic meter (m <sup>3</sup> ), cubic yards (yd <sup>3</sup> ), etc.). Environmental Restoration type projects will have a volumetric parameter, or a flow rate, etc.
	<b>PARAMETER_VALUE</b>	Quantity or numeric value of primary parameter
	<b>PRINCIPAL_CONTAMINANT</b>	Acids/Caustics, Asbestos, Fuels, Herbicides, Metals, Multi-contaminant, perchlorate, pesticides, Poly Chlorinated Biphenyls (PCBs), Radiation (High, Low, Transuranic(TRU)), Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Other
<b>Waste Parameters</b>	<b>PARAMETER_UOM</b>	As above
	<b>WASTE_OR_MATERIAL_TYPE</b>	Mixed, Contact handled (CH), Remote handled (RH), Transuranic (TRU), Low Level Waste (LLW), High Level Waste (HLW), Hazardous (HAZ), Sanitary Waste, Spent Nuclear Material (SNM), Spent Nuclear Fuel (SNF), PCBs, Non-Hazardous (Non-Haz), etc.
	<b>PCKG_TYPE</b>	"Bulk; Containerized-general, small-medium-large box; Cask (HLW); Liquid-Tank, HIC; Drum; B25; Overpack; Other
	<b>DISP_TRTMT</b>	No Treatment, Treatment at Origin, Treatment at Disposal facility
	<b>DISP_FAC_REG</b>	None; Treatment at Origin; Treatment at Disposal Facility
<b>Supplemental D&amp;D Parameters</b>	<b>BUILDING_TYPE</b>	<b>B_Typ_1-</b> (SF) Transite, non-rad, contaminated, coal/oil/steam plant; office building; non-contaminated equipment; other. <b>B_Typ_2</b> -(SF) Pu Storage; Small Reactor; LLW Tanks w/ and w/o sludge; Low level lab; Generic rad facility (GRF); GRF plus loose contamination; solid waste packaging; contaminated

ECAS TERM	Description
	<p>equipment; water storage (pkg. waste); other.  <b>B_Type-3</b> – (SF) Reactor (Weapons/commercial; Spent Nuclear Fuel (SNF)-reprocessing; Plutonium/ Enriched Uranium Processing; Remote/Semi-remote waste treatment; HLW Tanks w/ and w/o sludge; Other</p>
<b>CONSTRUCTION_TYPE</b>	Number of stories-below grade surface, above grade surface, high bay facility, multi-story no levels, Other
<b>STRUCTURE_TYPE</b>	Masonry exterior walls; brick & glass; Metal; prefabricated/modular; reinforced concrete; steel frame-siding; wood frame-siding
<b>FSA_TYPE</b>	Specific types of Functional Space Area related to a D&D subproject, as prescribed in the ECAS User's Manual.
<b>FSA_CMLX</b>	Complexity (high, Medium, low)
<b>Project Descriptors</b>	<b>MGMT_CMLX</b> Management Complexity (High, Medium, low)
	<b>TECH_CMLX</b> Technical Complexity (High, Medium, low)
	<b>REG_CMLX</b> Regulatory Complexity (High, Medium, low)
	<b>PUB_CMLX</b> Public or Stakeholder Complexity (High, Medium, low)
	<b>PL_ALL</b> Protection (PPE) Level: A-E; Graded, based on OSHA standards
	<b>ER_CMLX</b> Environmental Restoration Complexity (High, Medium, low)
	<b>GW_CMLX</b> Groundwater Complexity (High, Medium, low)
	<b>SW_CMLX</b> Surface Water Complexity (High, Medium, low)
	<b>SOIL_CMLX</b> Soil Complexity (High, Medium, low)
	<b>ECO_CMLX</b> Ecological Complexity (High, Medium, low)
	<b>WET_WILD</b> Wetlands/ Wildlife Complexity (High, Medium, low)
	<b>HIST</b> Historical/ Archaeological Complexity (High, Medium, low)
	<b>MEDIA_ST</b> Media Interest Complexity (high, Medium, low)