

## Level 2 Dictionary

This section presents the definitions for the major elements of work established at the second level of the cost structure. Each element presented below includes the phase number and applicable definition, followed by a list of subordinate elements, and finally supplemental notes where required.

### **.01 PROGRAM MANAGEMENT, SUPPORT, AND INFRASTRUCTURE**

**Phase 8:** This optional element is only used with phase 8 (Program Management). Program management includes government personnel and contract activities associated with the development of plans and programs for environmental restoration, compliance, conservation waste management, pollution prevention, and other environmental management activities. Program Support includes services rendered by offices and agencies in support of program planning such as legal, community relations, procurement, contracting, etc. Contracting for major task order procurements when the individual projects are unknown would be included in this element. Program infrastructure includes overhead elements such as insurance, interest, fees, rent, warehousing, building maintenance, equipment maintenance, etc. required to implement environmental programs. This level 2 element is optional because a government agency or contractor may choose to capture its program management activities in this cost element or may choose to capture such activities within individual burden or overhead projects in the cost structure. Please note that some costs can be reported in this element even though some overhead charges are included in the project. Caution should be used to prevent double counting.

### **.02 PROJECT MANAGEMENT AND SUPPORT**

**Phases 1 through 6:** The Project Management and Support element includes the development of project engineering, engineering support, and other management activities specific to individual projects. Unlike Program Management, this element is not considered optional. While the definition for this element does not change from phase to phase, the magnitude of the effort may. For example, project support for community relations may be far greater during phase 2 (Studies). This element includes the project engineering tasks to develop project plans and reports such as cost estimates, schedules, implementation plans, project control plans and reports, procurement plans, and other project related tasks.

**Phase 8:** Some project management and support elements are performed across numerous phases of the same projects or sites or numerous projects within the program. An example of this type of activity is “institution controls” that takes place at the site-wide level and where costs cannot be clearly allocated to a distinct project. If such costs are included under phase 8, do not include the same cost in the Project Management and Support element.

### **.03 PREPARATION OF PLANS**

**Phases 1 through 6:** This element consists of developing all plans necessary to conduct environmental remediation, waste management, or facility D&D and SLTM projects. When using phases 1 through 6, the plans are being prepared for specific projects. Activities include plan development from the beginning or planning stages to the end or closure of a site or project. The element Work Plan is intended to include all work plans (e.g., RD or RA work plans) needed for all projects. This task includes only the effort required to develop the plans. Work such as data acquisition (e.g., sample collection and analysis) is not part of this element.

**Phase 8:** Phase 8 applies to preparation of plans that are or can be prepared at the site and program level. For example, site wide health and safety plan, management plans, technical goals and objectives, and other plans which are prepared for more than one project. If these types of cost are included under Program Management, Support, and Infrastructure, do not include them in the Project Management and Support element.

### **.04 STUDIES/DESIGN AND DOCUMENTATION**

**Phase 1:** During phase 1, the studies for this element are far more limited. The only study of significance in phase 1 is the Hazard Ranking System (HRS).

**Phase 2:** The Studies/Design and Documentation element includes the development of all studies necessary to conduct environmental restoration, waste management, or facility D&D projects.

**Phase 3:** All of the design elements address the preliminary, intermediate, pre-final, and final design. The design includes project design for environmental restoration projects and for D&D projects, as well as for the design of treatment, storage, and disposal facilities. This element addresses only design work and should not be confused with the entire design phase. Phase 3 -- Design includes all elements of work during this life-cycle phase (e.g., Program Management, Project Management, Preparation of Plans).

**Phases 4 through 6:** Includes all design necessary during construction, operations, and during the actual SLTM phases.

## **.05 SITE WORK**

**Phase 1 through 6 and 8:** This element includes the activities to establish the physical infrastructure necessary to accomplish the project. The site work activities are for non-contaminated areas or for “clean-work.” The element includes activities such as access road, clear and grub, excavation and earthwork, lighting, and other elements needed for site preparation, site improvement, and site utilities.

It should also be noted that Technology Setup costs sometimes known as freight on board or technology specific mobilization and demobilization costs are fourth level costs included in the technologies.

## **.06 SURVEILLANCE AND MAINTENANCE (S&M)**

**Phases 1 through 6:** This element includes activities to ensure acceptable risk to the environment and human health and safety posed by radiological hazards, chemical munitions, or other hazardous materials inventory of active/inactive waste sites and facilities.

The third-level element, Facility Transition, addresses the activities involved to inventory and coordinate the facility transition from production operations to S&M status. The definition for the Outdoor/Indoor S&M elements is consistent across the first four phases (1 through 4). These elements are required during the first four phases of the project’s life-cycle for those projects that pose an immediate or potential catastrophic threat, to human health or the environment, prior to or during remedial action D&D. It is recommended that pre-remedial costs be captured using phase 1.

After a removal action, D&D, or final disposition, this element will be used for the long-term surveillance and maintenance or monitoring necessary to ensure the stability of the remediation, D&D, or disposal (phase 6). An example would be the S&M of barrier caps over waste sites. Long-term groundwater monitoring activities are covered under elements X.07 to X.09. During the waste site/facility operations phase, S&M activities will be considered to be part of the operations activities (phase 5).

**Phase 8:** Consists of surveillance and maintenance activities conducted across the program. For example, this will include S&M activities associated with cumulative impacts for the whole site such as an entire military base or entire DOE facility.

## **.07 INVESTIGATIONS AND MONITORING/SAMPLE COLLECTION**

**Phases 1 through 3:** This element includes the initial site reconnaissance and other generally available site characteristics such as meteorological monitoring. It also includes the other site investigations including contaminant surveys, groundwater/surface water geological and soil investigations, and other geophysical investigations. The sample collections for all media are also included.

**Phase 4:** This element includes other site investigations including contaminant surveys, groundwater/surface water geological and soil investigations, and other geophysical investigation. The sample collections for all media are also included.

**Phases 5 to 6:** This element includes all of the field work necessary to conduct on-site investigations of the site's physical (e.g., geological) characteristics and sample collection during O&M or SLTM.

## **.08 SAMPLE ANALYSIS**

**Phases 1 through 6** This element addresses the analysis of samples in a laboratory, analysis in mobile facilities, and real-time analyses of the samples. The analyses for these items are in accordance with the Certified Laboratory Procedures (CLP) when they are conducted in fully equipped on-site laboratory facilities or off-site laboratory facilities. The mobile analyses (often performed in a trailer) are less extensive. The real time analyses are conducted on location often with instruments that provide an immediate reading.

The user of this structure must exercise caution to determine if costs included for the on-site CLP analyses are burdened or unburdened. If they are unburdened then it should be noted whether the overhead type costs are included in the element .01 -- Program Management, Support, and Infrastructure.

## **.09 SAMPLE MANAGEMENT/DATA VALIDATION/DATA EVALUATION**

**Phases 1 through 6:** This element provides the chain-of-custody for the sample, the quality assurance, usability, and data analysis. The entire procedure for sample collection through final analysis is addressed. Sample disposal or derived waste disposal and modeling is also included in this element.

## **.10 TREATABILITY/RESEARCH & DEVELOPMENT**

**Phases 2 and 3:** This element includes the technology development testing and evaluation necessary to ensure successful cleanup implementation. All types of technologies (e.g., in situ biological, ex situ thermal, decontamination) regardless of whether they deployed for environmental restoration, waste management, or D&D are included in this element.

## **.11 TREATMENT PLANT/FACILITY**

**Phase 4:** This element includes construction of environmental management plant and facilities. These facilities can be used for housing technologies for environmental clean up, waste treatment, treatment or destruction of ordinance and explosives, destruction of decontaminated materials, or other purposes. These subordinate elements follow typical construction procedures. The Construction Standard Institute (CSI) codes and UNIFORMAT II classification use are recommended for each facility type at the fourth level of the cost structure.

**Phase 5:** The operation of treatment plants/facilities includes the operations labor, material, and consumables. The maintenance for these facilities includes the maintenance labor, equipment, replacements, material, and consumables. When multiple technologies are located in one treatment facility, a user may use either this element for all O&M costs or may include the O&M costs under the individual technology elements (cost elements X.21 - X.30 and X.34) when it is desirable to separate them. The actual facility design (phase 3) is conducted under cost element X.04.12 -- Facility Design and the treatability and research and development is included in element X.10.

## **.12 STORAGE FACILITY**

**Phase 4:** This element includes the construction of waste management storage Facilities. The subordinate elements follow typical construction procedures. The UNIFORMAT II and CSI classifications can be used for each facility type at the fourth level of the cost structure.

**Phase 5:** The phase 5 definition is waste management storage facility O&M. The operation for these facilities includes the operations labor, material, utilities and consumables. The maintenance for these facilities includes the maintenance labor, equipment replacements, material, and consumables.

**Phase 6:** Phase 6 for this element is on-site storage facility surveillance and long term monitoring. The surveillance for these facilities applies to storage facilities no longer in operation (e.g., accepting/processing waste).

## **.13 DISPOSAL FACILITY**

**Phase 4:** This element includes the construction of waste disposal facilities for sanitary, radioactive, hazardous, or toxic waste. These facilities can be used for disposal of ordinance and explosives, radioactive waste, hazardous waste, or other waste as required for compliance. The subordinate element follows typical construction procedures. The UNIFORMAT and CSI classifications can be used for each facility type at the fourth level of the cost structure.

**Phase 5:** Waste Disposal Facility O&M is included in this element. The operation of these facilities includes the operations labor, material, and consumables. The maintenance for these facilities includes the maintenance labor, equipment, replacements, material, and consumables.

**Phase 6:** Phase 6 for this element is disposal facility SLTM. The surveillance for these facilities applies to disposal facilities no longer in operation (e.g., accepting/processing waste) and is performed to ensure that facility integrity is maintained.

## **.14 ORDNANCE & EXPLOSIVES REMOVAL & DESTRUCTION**

**Phase 4:** This element includes the location, removal, and destruction of all ordnance—conventional or chemical, fused or defused, related scrap, propellants, and delivery vehicles during remedial action. It provides for subsurface data to delineate the extent of the contamination. It also includes the construction of temporary explosive storage bunkers.

The handling and treatment of chemical warfare materials (CWM) after removal is not included in this element. Waste treatment is included in element X.11, Treatment Plant/Facility/Process.

#### **.15 DRUMS/TANKS/STRUCTURES/MISCELLANEOUS DEMOLITION & REMOVAL**

**Phases 4 and 6:** These include the demolition and removal of HTRW contaminated drums, tanks, contaminated paint removal, and other structures by excavation and downsizing. This element can be used for interim removal actions, remedial action and facility shutdown/material removals.

This element does not include filling portable hazardous waste containers or transport of wastes to treatment or disposal facilities. See cost elements X.19 -- Solids Collection and Containment, and X.32 -- Material Handling/Transportation.

#### **.16 AIR POLLUTION/GAS COLLECTION & CONTROL**

**Phase 4:** This element includes the construction of trench systems, well systems, and other systems needed to capture fugitive dust, vapor, and gas.

**Phase 5:** This element includes the operation of trench systems, well systems, and other systems needed to capture fugitive dust, vapor, and gas. O&M also covers repairing and replacing components, cleaning areas and equipment, operation of the equipment, utilities, inspection of sites, and other miscellaneous activities.

**Phase 6:** This element includes all costs associated with long-term surveillance, maintenance, and monitoring activities needed to ensure compliance with various requirements. Examples of tasks include inspection of site and making repairs.

#### **.17 SURFACE WATER/SEDIMENTS CONTAINMENT, COLLECTION, OR CONTROL**

**Phases 4:** This element provides for the containment, collection, or control of contaminated surface water through the construction of storm drainage piping and structures, erosion control measures, and civil engineering structures such as berms, dikes, and levees.

**Phase 5 and 6:** This element provides for the O&M of storm drainage piping and structures, erosion control measures, and civil engineering structures such as berms, dikes, and levees. The effluent piping to treatment facility is included this element. Examples of

activities include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, utilities, and other miscellaneous costs.

## **.18 GROUNDWATER CONTAINMENT, COLLECTION, OR CONTROL**

**Phase 4:** This element provides for the containment, collection or control of contaminated groundwater through the construction of piping, wells, trenches, slurry walls, sheet piling, and other physical barriers.

**Phase 5:** This element provides for the O&M of piping, wells, trenches, slurry walls, sheet piling and other physical barriers. The effluent piping to treatment facility is also included this element. Examples of cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, utilities, and other miscellaneous costs.

**Phase 6:** This element includes costs of long-term surveillance, maintenance, and monitoring activities associated with abandoned wells, drains, slurry walls, and other elements to ensure there are no contaminant pathways or leakage of contaminants.

## **.19 SOLIDS/SOILS CONTAINMENT, COLLECTION, OR CONTROL (e.g., Capping)**

**Phase 4:** This element provides for the containment, collection or control of contaminated solids and soil through the construction of caps, construction of engineered barriers, excavation of contaminated materials, and other methods. Note that landfill construction is listed under Level 2, element X.13.

**Phase 5:** This element provides for the O&M of caps, barriers, containment structures and equipment, and other items. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, utilities, and other miscellaneous costs.

**Phase 6:** This element includes the SLTM of caps to ensure that the cap is functioning as designed.

## **.20 LIQUID WASTE/SLUDGE (e.g., UST/AST) CONTAINMENT, COLLECTION, OR CONTROL**

**Phase 4:** This element includes containment, collection, or control of hazardous, toxic and radioactivity contaminated liquids and sludges through dredging and vacuuming, and the furnishing and filling of portable containers. It includes the containment of liquids and sludges through the construction of lagoons, basins, tanks, dikes, and drain system.

**Phase 5:** This element includes O&M of vacuuming, lagoons, basins, tanks, dikes, and drain system. The effluent piping to the treatment facility is included this element. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, utilities, and other miscellaneous costs.

## **.21 IN SITU BIOLOGICAL TREATMENT**

**Phase 4:** This element includes procurement of treatment equipment (the equipment can be acquired for one specific project or can be used on multiple projects or subprojects and can be either portable or stationary), and installation of biological treatment systems. Biological treatment is the microbial transformation of organic compounds. Biological treatment processes can alter inorganic compounds such as ammonia and nitrate, and can change the state of oxidation of certain metal compounds. It includes in-situ biological treatment such as land farming and phyto-remediation.

**Phase 5:** This element includes the O&M of in situ bioremediation systems. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, utilities, and other miscellaneous costs. This element addresses the in situ application of these technologies, therefore, it is not part of a treatment train and does not require hazardous material handling or transportation.

## **.22 EX SITU BIOLOGICAL TREATMENT**

**Phase 4:** This element includes procurement of treatment equipment (the equipment can be acquired for one specific project or can be used on multiple projects or subprojects and can be either portable or stationary), and installation of biological treatment systems. Biological treatment is the microbial transformation of organic compounds. Biological treatment processes can alter inorganic compounds such as ammonia and nitrate, and can change the oxidation state of certain metal compounds. Examples of ex situ biological treatment include activated sludge, composting, trickling filters, anaerobic digestion, and aerobic digestion.

**Phase 5:** This element includes the O&M of these ex situ bioremediation systems. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, and utility costs. If this element is part of a treatment train or facility, then the overall operation of the facility will be included in cost element X.11 -- Treatment Plant/Facility. O&M cost of the individual technology can be included in this element if it can be clearly attributed to a technology.

## **.23 IN SITU CHEMICAL TREATMENT**

**Phase 4:** This element includes procurement of treatment equipment (the equipment can be acquired for one specific project or can be used on multiple projects or subprojects and can be either portable or stationary), and installation of chemical treatment systems. Chemical treatment is the process in which hazardous wastes are chemically changed to remove toxic contaminants from the environment. In situ treatment include chemical barriers, oxygen release compounds, and neutralization.

**Phase 5:** This element includes the O&M of these in situ chemical treatment systems. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, utilities, and other miscellaneous costs.

This element addresses the in situ application of these technologies; therefore, it is not part of a treatment train and does not require hazardous material handling or transportation.

## **.24 EX SITU CHEMICAL TREATMENT**

**Phase 4:** This element includes procurement of treatment equipment (the equipment can be acquired for one specific project or can be used on multiple projects or subprojects and can be either portable or stationary), and installation of chemical treatment systems. Chemical treatment is the process in which hazardous wastes are chemically changed to remove toxic contaminants from the environment. The types of ex situ treatment include oxidation/reduction, solvent extraction, chlorination, ozonation, ion exchange, neutralization, hydrolysis, photolysis, dechlorination, electrolysis reactions, and other technologies.

**Phase 5:** This element includes the O&M of these ex situ chemical treatment systems. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, utilities, and other miscellaneous costs. If this element is part of a treatment train or facility, then the overall operation of the facility will be included in cost element X.11 -- Treatment Plant/Facility. O&M cost of the individual technology can be included in this element if it can be clearly attributed to a technology.

## **.25 IN SITU PHYSICAL TREATMENT**

**Phase 4:** This element includes procurement of treatment equipment (the equipment can be acquired for one specific project or can be used on multiple projects or subprojects and can be either portable or stationary), and installation of physical treatment systems. Physical treatment is the physical separation of contaminants from solid, liquid, or gaseous waste streams. Physical treatments generally do not result in total destruction or separation of the contaminants in the waste stream, consequently post-treatment is often required. In situ physical treatment include circulating wells/in-well air stripping, air sparging, soil flushing, vacuum blasting, and bioslurping.

**Phase 5:** This element includes the O&M of these in situ physical treatment systems. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, and utility costs. This element addresses the in situ application of these technologies, therefore, it is not part of a treatment train and does not require hazardous material handling or transportation.

**Phase 6:** With some in situ physical treatment methods such as coating, this element includes the regular application of paints, adhesive substances, or bonding substances on structures or equipment to contain the contaminants or to reduce exposure to contaminants as part of the operation and maintenance or long-term monitoring activity.

## **.26 EX SITU PHYSICAL TREATMENT**

**Phase 4:** This element includes procurement of treatment equipment (the equipment can be acquired for one specific project or can be used on multiple projects or subprojects and can be either portable or stationary), and installation of physical treatment systems. Physical treatments generally do not result in total destruction of the contaminants in the waste stream, consequently post-treatment is often required. Ex situ physical treatment include filtration, sedimentation, flocculation, precipitation, equalization, evaporation, stripping, soil washing, carbon adsorption, and several other treatments. Cost includes process equipment, labor, and material associated with the construction or installation of the treatment unit.

**Phase 5:** This element includes the O&M of these ex situ physical treatment systems. Such costs include chemicals required for treatment, replacement of parts, operation of the technology, preventive and corrective maintenance, and other miscellaneous costs. If this element is part of a treatment train or facility, then the overall operation of the facility will be included in cost element X.11 -- Treatment Plant/Facility. Operation cost of the individual technology can be included in this element if it can be traced to a specific technology.

## **.27 IN SITU THERMAL TREATMENT**

**Phase 4:** This element includes procurement of treatment equipment (the equipment can be acquired for one specific project or can be used on multiple projects or subprojects and can be either portable or stationary), and installation of thermal treatment systems. Thermal treatment is the destruction of wastes through exposure to high temperature and energy recovery devices. The types of in situ treatments include thermal blanket, six-phase extraction, and high-temperature thermal desorption. In situ vitrification is included under cost element X.29 - In situ Stabilization/Fixation/Encapsulation to encapsulate radionuclides.

**Phase 5:** This element includes the O&M of these in situ thermal treatment systems. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, utilities, and preventive and corrective maintenance. This element addresses the in situ application of these technologies; therefore, it is not part of a treatment train and does not require hazardous material handling or transportation.

## **.28 EX SITU THERMAL TREATMENT**

**Phase 4:** This element includes procurement of treatment equipment (the equipment can be acquired for one specific project or can be used on multiple projects or subprojects and can be either portable or stationary), and installation of thermal treatment systems. Thermal treatment is the destruction of wastes through exposure to high temperature in combustion chambers and energy recovery devices. Ex situ thermal treatments include several processes capable of incinerating a wide range of liquid and solid wastes include fluidized bed, rotary kiln, multiple hearth, infrared, circulating bed, liquid injection, pyrolysis, plasma torch, wet air oxidation, supercritical water oxidation, molten salt destruction, and solar detoxification.

**Phase 5:** This element includes the O&M of these ex situ thermal treatment systems. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, and utility costs. If this element is part of a treatment train or facility, then the overall operation of the facility will be included in cost element X.11 -- Treatment Plant/Facility. Operation cost of the individual technology can be included in this element if it can be traced to an individual technology.

## **.29 IN SITU STABILIZATION/FIXATION/ENCAPSULATION**

**Phase 4:** This element includes procurement of treatment equipment (the equipment can be acquired for one specific project or can be used on multiple projects or subprojects and can be either portable or stationary), and installation of stabilization/fixation/encapsulation treatment systems. Stabilization/fixation/encapsulation processes attempt to improve the handling and physical characteristics of the wastes, decrease the surface area, limit the solubility of any pollutants and detoxify contained pollutants. The types of in situ treatments include inorganic/asphalt-base encapsulation, in situ vitrification, and pozzolan process. In situ vitrification is included in this element to encapsulate radionuclides and mobile contaminants.

**Phase 5:** This element includes the O&M of these in situ stabilization/fixation/encapsulation treatment systems. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, utilities, and other miscellaneous costs. This element addresses the in situ application of these technologies, therefore, it is not part of a treatment train and does not require hazardous material handling or transportation.

## **.30 EX SITU STABILIZATION/FIXATION/ENCAPSULATION**

**Phase 4:** This element includes procurement of treatment equipment (the equipment can be acquired for one specific project or can be used on multiple projects or subprojects and can be either portable or stationary), and installation of stabilization/fixation/encapsulation treatment systems. Stabilization/fixation/encapsulation processes attempt to improve the handling and physical characteristics of the wastes, decrease the surface area, limit the solubility of any pollutants and detoxify contained pollutants. The types of ex situ treatments include inorganic/asphalt-based encapsulation, sludge stabilization, and vitrification.

**Phase 5:** This element includes the O&M of these ex situ stabilization/fixation/encapsulation treatment systems. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, and utility costs. If this element is part of a treatment train or facility, then the overall operation of the facility will be included in cost element X.11 -- Treatment Plant/Facility.

## **.31 FACILITY DECOMMISSIONING AND DISMANTLEMENT**

**Phase 4:** This element includes specific equipment procurement, installation of dismantlement systems. Decommissioning and dismantlement includes all activities associated with shutdown, dismantlement, and final cleanup of a nuclear, CWM, or other facility.

**Phase 5:** This element includes the O&M of these dismantlement systems. Some of the removal actions (e.g., asbestos abatement, piping & pipeline removal) are included in cost element X.15 -- Drums/Tanks/Structures/Miscellaneous Demolition and Removal).

### **.32 MATERIAL HANDLING/TRANSPORTATION**

**Phases 1 through 5:** This element includes all costs associated with packaging, handling and transportation of waste to various facilities and sites. The shipment or freight on board of treatment technologies and equipment (i.e., X.21 to X.31 and X.34) are included in the cost of the specific technology and not under X.32.

### **.33 DISPOSAL**

**Phases 1 through 6:** This element provides for the final placement of HTRW at an on-site and off-site government or third party commercial facilities that charge a fee to accept waste depending on a variety of waste acceptance criteria. Fees are assessed based on different waste categories, methods of handling, and characterization. Disposal may be accomplished through the use of secure landfills, surface impoundment, deep well injection, or incineration.

### **.34 AIR-EMISSION AND OFF-GAS TREATMENT**

**Phase 4:** This element includes procurement of treatment equipment (the equipment can be acquired for one specific project or can be used on multiple projects or subprojects and can be either portable or stationary), and installation of air-emission and off-gas treatment systems. Air-emission and off-gas treatment systems treat air and off-gas to decrease particulate material or to remove volatile organic compounds.

**Phase 5:** This element includes the O&M of these air-emission and off-gas treatment systems. Examples of O&M cost include inspections, replacement of parts, operation of the equipment, preventive and corrective maintenance, utilities, and other miscellaneous costs. If this element is part of a treatment train or facility, then the overall operation of the facility will be included in cost element .11 -- Treatment Plant/Facility.

### **.9X OTHER (Use Numbers 90-99)**

**Phases 1 through 6 and 8:** The element is provided to allow the user to include an element for items or activities that are not addressed in X.01 - X.34. The phase-based approach has attempted to include all applicable elements to the extent practical. To allow the structure to remain consistent and useful, users are discouraged from using the "Other" elements except for those for activities that are unique or for special tasks that cannot be

described closely by available elements. The .9X categories will be reviewed periodically to determine if new elements should be added to the structure.

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