



Department of Energy
Washington, DC 20585

November 16, 2015

MEMORANDUM FOR DISTRIBUTION

FROM:

CARMELO MELENDEZ
DIRECTOR, OFFICE OF PROPERTY MANAGEMENT
AND SENIOR REAL PROPERTY OFFICER / MA-50

A handwritten signature in black ink, appearing to read "Carmelo Melendez", is written over the typed name and title.

SUBJECT:

FY 2016 Real Property Data Related to Operations and Maintenance
Guidance

REFERENCE:

DOE Order 430.1B: Real Property Asset Management

Pursuant to section 5.d.12 of the referenced Order, this memorandum provides implementing guidance for collecting and reporting FY 2016 operations and maintenance data, including required, annual actual, and deferred maintenance.

This memorandum is effective on October 1, 2015, will remain current until replaced by the FY 2017 memorandum and cancels the FY 2015 Real Property Data Related to Operations and Maintenance Guidance. Please distribute it to the appropriate elements of your organization.

The attached *Implementation Procedures to Report Data Related to Operations and Maintenance on Real Property* applies only to real property (buildings, real property trailers and other structures and facilities (OSFs)) and not personal property. The Senior Real Property Officer submits data reported in response to this memorandum to the Federal Real Property Profile, the Office of Management and Budget, Congress, and the Department's Chief Financial Officer for inclusion in the annual Agency Financial Report.

Questions on this guidance may be addressed to Cindy Hunt at (202) 586-4539. Questions related to populating the Department's Facilities Information Management System may be addressed to Adam Pugh at (202) 587-1397.

Attachment

Distribution:

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Ingrid Kolb, Office of Management, Director

Location of Changes

Implementation Procedures to Report Data Related to Operations and Maintenance of Real Property

FY2015	Changed from	FY2016	Changed to
1.c	Quarterly Maintenance	1.c	Quarterly Maintenance Report
1.d.i	Buildings, real property trailers, and structures owned or leased by the Department; owned or leased by the General Services Administration on behalf of the Department; leased by contractors on behalf of the Department; or permitted to the Department.	1.d	Revised from narrative to table format; included requirements for DOE Licensed, Contractor Owned, Contractor Licensed assets.
2.a.ii.1	Commentary: Programs with separate funding specifically for reducing deferred maintenance have a better understanding of their maintenance spending and the effectiveness of their efforts to reduce their deferred maintenance.	2.a.ii.1	Removed commentary.
		2.a.11.2.d	Added: Cost of direct supervision by work foreman, planning and scheduling; storage and staging of materials; supplies required for maintenance activities, including the costs of any sustainable products used to address deteriorated conditions in asset component systems. Removed commentary
2.a.ii.3	Omit betterment costs.	2.a.ii.4	Omit betterment and alteration costs.
		2.a.ii.5	Omit facility disposal costs.
2.a.iii.3	Omit betterment costs.	2.a.iii.3	Omit betterment and alteration costs.
		2.a.iii.4	Omit facility disposal costs.
2.b.ii	Omit betterment costs or payments to providers of information technology, communications, security, or parking fee collections management services.	2.b.ii and 2.b.iii	Separated one paragraph into two.

FY2015	Changed from	FY2016	Changed to
2.b.ii	Commentary: Include costs for information technology that solely supports facilities management, like computerized maintenance management systems, under Annual Actual Maintenance.		Removed commentary.
2.b.iv	Commentary: Sites cognizant of asset-level maintenance and operations costs can make more informed facility investment decisions and may recognize efficiency improvement opportunities more easily.	2.b.vi	Removed commentary.
		2.c	Section subparagraphs re-ordered
2.c.iii	When conducting multiple CAS on a single asset: 1. Complete surveys for all component systems within a single fiscal year. 2. Note each survey date.	2.c.i.5	When multiple inspections covering all of an asset's components systems have occurred within a single fiscal year, record the date of the final inspection.
2.c.iv	3. The estimated cost to correct identified deficiencies, i.e., failures in the asset's component systems but not its inadequacies, and, Commentary: Some sites will additionally note utility consumption, conservation opportunities, and potential betterments during their CAS.	2.c.ii	3. The estimated cost to correct identified deficiencies Revised format from commentary to Footnote 4.
2.c.vii	3. Asset age based on acquisition year or time in operation.	2.c.vii	3. Asset/system/component age based on acquisition/installation year or time in operation.
2.c.ix		2.c.ix	Updated table and added footnote 5.
2.c.x	Select person(s) to determine an asset's optimum period who: 1. Have not participated in its CAS. 2. Support real property oversight at the site. Commentary: The definition of maintenance and repairs appearing in SFFAS 42, item 8,	1.e	Determine the minimum acceptable level of condition for each real property asset as well as the times in the life cycle of the asset when maintenance actions should be accomplished on its systems and components to preserve and maximize the useful life of the asset.

FY2015	Changed from	FY2016	Changed to
	includes a footnote (4) that reads in part “Management shall determine what level of condition is acceptable.”		<p>Select person(s) to make these determinations who:</p> <ul style="list-style-type: none"> i. Have not participated in the asset’s Condition Assessment Survey (CAS). ii. Have responsibility for real property management or oversight at the site. <p>Added Footnote 1.</p>
2.c.x	Commentary: The definition of maintenance and repairs appearing in SFFAS 42, item 8, includes a footnote (4) that reads in part “Management shall determine what level of condition is acceptable.”		Revised format from commentary to Footnote 6.
2.c.xi	<p>Repair needs will always equal or exceed deferred maintenance; the difference between the two depends on each noted deficiency’s optimum period and acceptability to management.</p> <ul style="list-style-type: none"> 1. An asset’s FY 2015 repair needs equals the cost to correct all identified deficiencies. 2. An asset’s FY 2015 deferred maintenance equals the cost to correct all identified deficiencies past optimum period and deemed unacceptable to management in FY 2014 or before. 	2.c.xiv	<p>An asset’s FY 2016 deferred maintenance equals the cost to correct all identified deficiencies past optimum period and deemed unacceptable to management in FY 2015 or before.</p> <p>Removed commentary.</p>
		2.c.xv	<p>An asset’s FY 2016 repair needs equals the cost to correct all identified deficiencies.</p> <ul style="list-style-type: none"> 1. Repair needs will always equal or exceed deferred maintenance; the difference between the two depends on the established optimum period and each noted deficiency’s acceptability to management.
2.c.xii	The Department publishes in its annual financial report the	2.c.x thru 2.v.xiii	Replaced table format with narrative format.

FY2015	Changed from	FY2016	Changed to
	deferred maintenance of certain assets (see Appendix B). Management of deferred maintenance differs accordingly:		Removed commentary.
		2.d	Added Laboratory Operations Board (LOB) Infrastructure Assessment
3.b.i	Submit quarterly in a spreadsheet maintenance information that includes both direct and indirect funded maintenance costs incurred in each quarter of FY 2015 by program and by site.	3.b.i	Submit quarterly the Quarterly Maintenance Report, spreadsheet that includes both direct and indirect funded maintenance costs incurred for each quarter of FY 2016 by program and by site.
3.b.i.1	Report the quarterly planned maintenance expenditure targets in the second quarter submission.	3.b.i.1	Confirm the quarterly planned maintenance expenditure amounts in the second quarter submission.
3.b.i.3	Do not adjust previously submitted targets or expenditures.	3.b.i.3	Do not adjust previously submitted planned or actual amounts.
3.d	Data submission deadlines	3.d	<p>Revised dates for FY2016 cycle.</p> <p>Added the following due dates:</p> <p>1/15/2016 – OA and anticipated acquisition information update needed to support Real Property Efficiency Plan (RPEP) due in March 2016</p> <p>9/30/2016 – Disposition Method needed to support RPEP update</p> <p>10/18/2016 – replaces 3.f</p> <p>11/7/2016 – required activity added to schedule</p> <p>Deleted the following due dates:</p> <p>5/29/2015 - Information no longer required by MA-50(RE) during this timeframe.</p>
3.f	Provide an explanation when a program’s deferred maintenance growth or reduction between the most recent and previous fiscal years equals or exceeds ten percent.		Moved to the table in 3.d
		3.f	The Office of Government-wide Policy, General Services Administration (GSA/OGP), will

FY2015	Changed from	FY2016	Changed to
			automatically calculate the Condition Index for each real property asset as outlined in Appendix C of this guidance.
4		4	Added definitions: <ul style="list-style-type: none"> - Alterations - Deficiency - Deferred Maintenance Reduction - Disposal
5		5	Updated contact information.
		Appendix C	Added <i>Federal Real Property Council Data Aggregation Procedures</i>

Attachment

Implementation Procedures to Report Data Related to Operations and Maintenance of Real Property

1. PURPOSE AND APPLICABILITY

- a. These implementation procedures for Fiscal Year (FY) 2016 will assist sites and their field and site offices to consistently and accurately collect and report financial data related to the operation and maintenance of real property assets owned or leased by the United States Department of Energy (DOE or the Department).
- b. Programs and support offices with real property holdings, or Programs, may implement alternate procedures in consultation with the Senior Real Property Officer or his designee (SRPO) that ensure the Department continues to meet its reporting commitments.
- c. These implementation procedures specifically address the Department’s obligations to report:

<i>Cost or Estimate</i>	<i>Source of Requirement</i>	<i>Reporting Medium</i>
Annual Required Maintenance	<ul style="list-style-type: none"> • Required at the discretion of the program (LPSO or CSO) 	<ul style="list-style-type: none"> • Not reported externally
Annual Actual Maintenance	<ul style="list-style-type: none"> • Guidance for Real Property Inventory Reporting referenced in 41 CFR § 102–84 • DOE Order 430.1B 	<ul style="list-style-type: none"> • Federal Real Property Profile
Quarterly Maintenance Report	<ul style="list-style-type: none"> • H.R. Conference Report 108-10 accompanying Public Law 108-7 	<ul style="list-style-type: none"> • President’s Budget Request
Annual Operations	<ul style="list-style-type: none"> • Guidance for Real Property Inventory Reporting referenced in 41 CFR § 102–84 • DOE Order 430.1B 	<ul style="list-style-type: none"> • Federal Real Property Profile
Deferred Maintenance	<ul style="list-style-type: none"> • Statement of Federal Financial Accounting Standards (SFFAS) 6, Accounting for Property, Plant, and Equipment • SFFAS 42, Deferred Maintenance and Repairs • DOE Order 430.1B 	<ul style="list-style-type: none"> • Annual performance and financial reports
Repair Needs	<ul style="list-style-type: none"> • Guidance for Real Property Inventory Reporting referenced in 41 CFR § 102–84 	<ul style="list-style-type: none"> • Federal Real Property Profile

- d. Collect and report the actual and estimated costs listed above for the following types of real property assets (buildings, real property trailers, structures, and land) in which the Department has the following kinds of interest:

		<i>Cost or Estimate</i>					
	Ownership	Annual Required Maintenance	Annual Actual Maintenance	Quarterly Maintenance	Annual Operations ¹	Deferred Maintenance	Repair Needs
Buildings, Real Property Trailers, and Structures	DOE Owned	at the discretion of the program	X	X	X	X	X
	DOE Leased or Licensed		X		X		X
	GSA Owned or Leased		X		X		X
	Contractor Owned, Leased, or License		X		X		X
	Permit		X ²	X	X		X
Land	All Types				X		

¹ Required at the site level for all sites. Provide asset-level costs or estimates exist when available. See Facilities Information Management System User's Guide.

² Required for buildings and structures.

- e. Determine the minimum acceptable level of condition for each real property asset as well as the times in the life cycle of the asset when maintenance actions should be accomplished on its systems and components to preserve and maximize the useful life of the asset¹. Select person(s) to make these determinations who:
- i. Have not participated in the asset's Condition Assessment Survey (CAS).
 - ii. Have responsibility for real property management or oversight at the site.

2. DATA GATHERING METHODS

a. Maintenance

i. Annual Required Maintenance Costs

1. Collect these asset-level cost estimates as directed by the Lead Program Secretarial Office (LPSO) or Cognizant Secretarial Office (CSO).
2. Include estimated, fully-burdened costs for predictive, preventive, and corrective maintenance or surveillance and maintenance for which FY 2016 is the optimum period of accomplishment as determined by:
 - a. Condition assessment surveys,
 - b. The site Maintenance Management Plan,
 - c. Vendor maintenance schedules, or,
 - d. Lifecycle or condition modeling.

¹ The determination is based on engineering/maintenance analysis and is independent of funding availability or other resource implications.

3. Incorporate in estimated costs:
 - a. Materials, equipment, and services planned for acquisition through a purchase order, contract or agreement,
 - b. Prevailing wage and cost burden rates, and,
 - c. Ancillary services or work necessary to resolve the deficiency.
4. For projects with a mixed scope of betterments and maintenance that would provide similar maintenance benefits to multiple assets at a single cost:
 - a. First deduct any estimated project costs for betterments,
 - b. Then allocate the remaining estimated costs to the impacted assets based on size².
5. Omit maintenance the site does not plan to accomplish in FY 2016, whether funded but not accomplished in FY 2014 or before, or has been deferred to FY 2016 or later.

ii. Annual Actual Maintenance Costs

1. Collect these asset-level, fully-burdened actual costs for predictive, preventive, and corrective maintenance or surveillance and maintenance incurred in FY 2016.
2. Incorporate in costs:
 - a. Expenditures for materials, equipment, and services paid under a purchase order, contract or agreement,
 - b. Prevailing wage and cost burden rates,
 - c. Ancillary services or work necessary to resolve the deficiency including any payments made under an alternative financing arrangement for maintenance services.
 - d. Cost of direct supervision by work foreman, planning and scheduling; storage and staging of materials; supplies required for maintenance activities, including the costs of any sustainable products used to address deteriorated conditions in asset component systems.
3. Do not allocate corrective maintenance costs. Use maintenance and financial management systems to minimize a site's reliance on allocation of predictive and preventive maintenance and surveillance and maintenance costs.
4. Omit betterment and alteration costs.
5. Omit real property asset disposal costs.

iii. Quarterly Maintenance Costs

1. Collect these site-level, fully-burdened actual costs for predictive, preventive, and corrective maintenance or surveillance and maintenance incurred in each quarter of FY2016 from a site's

² Area (e.g., square feet or acres) for buildings, trailers, and land; primary or secondary units for structures

maintenance and financial management systems, distinguishing between:

- a. Direct funded maintenance, and
 - b. Indirect funded maintenance
2. Include costs paid under a purchase order, contract or agreement, prevailing wage and cost burden rates, ancillary services or work necessary to resolve the deficiency, and, sustainable products installed.
 3. Omit betterment and alteration costs.
 4. Omit real property asset disposal costs.

b. Operations

- i. Collect the fully-burdened costs for electricity, water/sewer, pest control, central heating, central cooling, snow removal, gas, refuse, recycling, grounds, janitorial, and rent incurred in FY 2016 by (1) sites and (2) assets such that the sum of all asset-level costs for a site equals the site level total costs.
- ii. Omit betterment costs.
- iii. Omit payments to providers of information technology, communications, security, or parking fee collections management services.
- iv. Include payments made under an energy savings performance contract (ESPC), another third-party financed agreement, and in lieu of payments made to a utility service provider under the respective utility-related operations cost.
- v. Appendix A provides an alternative compliance approach for sites that do not know one or more of an asset's operations costs.

c. Deferred Maintenance and Repair Needs

- i. Complete a condition assessment survey (CAS) for each asset no later than 1,826 days (five years) following its acquisition, its previous CAS, or sooner when mandated by: Federal, state, or local codes; the Program; site management based on mission dependency, maintenance requirements, or the results of lifecycle or condition modeling.
- ii. Use and document the application of industry standard methods^{3, 4} commensurate with the asset's status, usage, or ownership, or more thorough procedures when mandated by Federal, state, or local codes or the Program, to determine for each real property asset:
 1. The current condition of each in place component system,

³ For more information on conducting a CAS, review the *CAS Quick Reference Guide* at <http://1.usa.gov/14qEMLP>

⁴ Some sites will additionally note utility consumption, conservation opportunities, and potential betterments during their CAS.

2. Each component system's estimated time to failure,
 3. The estimated cost to correct identified deficiencies and,
 4. Whether or not component system deficiencies have exceeded their optimum period as of the end of the fiscal year.
- iii. Prioritize inspection methods as follows:
1. Visual (non-invasive) is the preferred method
 2. Non-destructive testing
 3. Function measurement
 4. Sample testing (e.g., tribology)
 5. Destructive testing
- iv. Record observations made during, and the estimates produced by, each CAS in a database, such as the Department's Condition Assessment Information System (CAIS) queryable on any of the following levels:
1. Component system
 2. Asset
 3. Site
 4. Program
- v. Estimate costs to resolve deficiencies, fully-burdened, for FY 2016 at a component system level, tallied to an asset level, based on CAS.
- vi. When multiple inspections covering all of an asset's components systems have occurred within a single fiscal year, record the date of the final inspection.
- vii. Use the following sources only to support or corroborate CAS results:
1. Unexecuted corrective maintenance work orders,
 2. Special studies or inspection reports (e.g., elevator or roof inspections),and,
 3. Asset/system/component age based on acquisition/installation year or time in operation.
- viii. Once a maintenance task or project action addresses an identified deficiency, remove the estimated cost to correct that deficiency from the maintenance backlog within the same fiscal year, regardless of when the next CAS will occur.
- ix. For fiscal years ending without a CAS, inflate cost estimates to correct deficiencies in the backlog to FY 2016 dollars using R.S. Means cost tables or factors appearing in the table below:

<u>FROM YEAR</u> to 2016	<u>INFLATORS</u> ⁵
2015	1.03
2014	1.05
2013	1.07
2012	1.09
2011	1.11

- x. When corrective maintenance is past its optimum period but no longer needed, reduce deferred maintenance accordingly.
 - xi. When corrective maintenance with an optimum period previously for FY2015 or earlier now has an optimum period of FY 2016 or later, reduce deferred maintenance accordingly.
 - xii. When a site's LPSO or an asset's CSO changes, do not reduce deferred maintenance.
 - xiii. When an asset's status changes (e.g. from active to inactive) perform a CAS and update deferred maintenance, if needed.
 - xiv. An asset's FY 2016 deferred maintenance equals the cost to correct all identified deficiencies past optimum period and deemed unacceptable to management in FY 2015 or before.
 - xv. An asset's FY 2016 repair needs equals the cost to correct all identified deficiencies.
 - 1. Repair needs will always equal or exceed deferred maintenance; the difference between the two depends on the established optimum period and each noted deficiency's acceptability to management⁶.
- d. Laboratory Operations Board (LOB) Infrastructure Assessment (as required by the LPSO or CSO)
- i. Complete an infrastructure assessment as described within Program guidance.
 - ii. Determine for each real property asset the overall qualitative condition relative to mission and core capability following the LOB Facilities and Infrastructure Assessment Guidance.

⁵ Inflatons derived from non-labor escalation rates provided on page 13 of the FY 2017 CBR Budget Preparation Guidance.

⁶ The definition of maintenance and repairs appearing in SFFAS 42, item 8, includes a footnote (4) that reads in part "Management shall determine what level of condition is acceptable."

- iii. Document significant mission-related asset deficiencies and inadequacies as well as the corresponding impact on mission in the FIMS data field, “Condition Notes”, considering:
 - 1. existing environment, safety, or health risks,
 - 2. capability to perform current mission,
 - 3. ability to attract and maintain key staff,
 - 4. ability to meet DOE requirements,
 - 5. reliability, and
 - 6. capacity.

- iv. Record the “Overall Asset Condition” in FIMS using one of the following Asset Condition Ratings:
 - 1. Adequate
 - 2. Substandard
 - 3. Inadequate

3. REPORTING REQUIREMENTS

- a. Ensure that FIMS contains a complete inventory of land parcels, buildings, real property trailers, and structures owned or leased by the Department or the General Services Administration on behalf of the Department per 41 CFR § 102–84.40.

- b. Report in whole dollars all costs and estimates discussed in this guidance for the respective FIMS data elements, subject to the following exception(s).
 - i. Submit quarterly the Quarterly Maintenance Report, a spreadsheet that includes both direct and indirect funded maintenance costs incurred for each quarter of FY 2016 by program and by site.
 - 1. Confirm the quarterly planned maintenance expenditure amounts in the second quarter submission.
 - 2. Report the expenditures for each LPSO and CSO at a site separately, regardless of the extents of a CSO’s real property holdings on the site.
 - 3. Do not adjust previously submitted planned or actual amounts.
 - 4. Incorporate corrections to expenditures in the next quarter submission for the same fiscal year.

 - ii. Enter a value of zero when:
 - 1. The site or asset has not incurred a cost; or,
 - 2. Site management has no valid basis for estimating the cost.

- c. Record in each asset’s FIMS Inspection Date the date of the final CAS during the fiscal year. Do not enter an inspection date when no inspection compliant with this guidance has occurred. Do not enter future dates.

- d. Submit all requested data by the deadlines appearing in the following table:

<i>Deadline Date</i>	<i>Task</i>
12/14/2015	Populate in FIMS the Annual Required Maintenance Costs for FY2016 as directed by the LPSO or CSO. <i>(Note: Sites may begin entering this data on 11/10/2015)</i>
1/15/2016	Populate the following FIMS fields: 1. Anticipated Disposition Method where the Estimated Disposition Year is FY2016 – FY2021 and Excess Indicator is set to “Y” 2. All fields in the Anticipated Acquisition Information Module for FY2017-FY2021 planned actions.
01/15/2016	Confirm the following FIMS fields for assets owned or leased by GSA: 1. Annual Rent 2. Usage Code 3. Rentable SQFT 4. Usable SQFT 5. Occupants 6. Expiration Date
02/12/2016	Submit FY2016 Quarterly Maintenance Report covering <u>first</u> quarter, 10/01/2015 – 12/31/2015.
02/17/2016	Recalculation of FIMS-generated building or trailer replacement plant value with calendar year 2016 model costs.
05/16/2016	Submit FY2016 Quarterly Maintenance Report covering <u>second</u> quarter, 01/01/2016 – 03/31/2016 <i>plus</i> confirm quarterly planned targets.
08/15/2016	Submit FY2016 Quarterly Maintenance Report covering <u>third</u> quarter, 04/01/2016 – 06/30/2016.
09/01/2016	LPSOs and CSOs to provide a list of sites given their consent to allocate operations costs for FY2016 to the SRPO.
09/30/2016	Populate the following FIMS Fields for FY2016 : 1. Deferred Maintenance 2. Repair Needs <i>(Note: Sites may begin entering this data on 08/01/2016.)</i> Update the following FIMS Fields for FY2016 1. Inspection Date 2. Deficiency Systems 3. Status 4. Estimated Disposition Year 5. Excess Indicator 6. Disposition Method

<i>Deadline Date</i>	<i>Task</i>
10/03/2016	FY2016 Deferred Maintenance Snapshot <i>(Note: Submission for Annual Financial Report due 10/07/2016.)</i>
10/18/2016	Program provides SRPO with explanation when deferred maintenance growth or reduction between the most recent and previous fiscal years equals or exceeds ten percent.
11/07/2016	Populate the following FIMS Fields for FY2016 : 1. Annual Maintenance Costs 2. Annual Operations Costs <i>(Note: On 09/30/2016, the SRPO will blank these fields; thereafter sites may enter this data.)</i> 3. All fields in the Anticipated Acquisition Information Module for FY2018-FY2022 planned actions. Complete archiving real property assets disposed of during FY2016 . Submit Site Manager or Headquarters Program Office FIMS certification statement to the SRPO.
11/08/2016	FY2016 FIMS Year-end Snapshot taken. Archiving of real property assets disposed of during FY2017 may begin. <i>(Note: Federal Real Property Profile (FRPP) data due on 12/15/2016)</i>
11/14/2016	Submit FY2016 Quarterly Maintenance Report covering <u>fourth</u> quarter, 07/01/2016 – 09/30/2016.

- e. The SRPO will fulfill the Department’s reporting obligations using the data as submitted by the sites without further computations, subject to the exceptions outlined in Appendix B of this guidance.
- f. The Office of Government-wide Policy, General Services Administration (GSA/OGP), will automatically calculate the Condition Index for each real property asset as outlined in Appendix C of this guidance.

4. DEFINITIONS⁷

- a. Alterations. [ORD] Adjustments to interior arrangements or other physical characteristics of an existing facility so that it may be more effectively adapted to or used for its designated purpose. Alterations do not result in betterment to a facility. Examples of alterations are as follows.
- Removal or installation of interior walls for purposes of rearranging the layout of an office building, and incidental heating and ventilation ducting system.
 - Modifications that do not significantly extend the capacity of the system.
 - Construction of a door or passage through an interior structural wall.
 - Installation of new lighting fixtures that do not significantly increase the lumens emitted but may result in energy or maintenance savings.
- b. Betterments. [ORD amended by FMH] Improvements to facilities that result in better quality work, increased capacity, an extended useful life, or compliance with regulatory and other requirement changes. Determining when and to what extent an expenditure should be treated as a betterment requires judgment. When a minor item is replaced in each of a number of similar units, the effect of the replacement as related to each unit, rather than to the cumulative costs, is the proper basis for determining whether or not a betterment has occurred. Listed below are the various terms that are commonly used to describe various categories of betterments:
- i. Construction is the erection, installation, or assembly of a new plant facility; the addition, expansion, improvement, or replacement of an existing facility; or the relocation of a facility. Construction includes equipment installed in and made part of the facility and related site preparation; excavation, filling and landscaping, or other land improvements; and design of the facility. Examples of improvements to an existing facility include the following types of work.
1. Replacing standard walls with fireproof walls.
 2. Installing a fire sprinkler system in a space that was previously not protected with a sprinkler system.
 3. Replacing utility system components with a significantly larger capacity components (e.g., replacing a 200-ton chiller with a 300-ton chiller) and converting the functional purpose of a room (e.g., converting an office into a computer room).
- ii. Conversion is a major structural revision of a facility that changes the functional purpose for which the facility was originally designed or used.

⁷ Sources appear in brackets and italics. Key to sources: [APPA] = adapted from *Operational Guidelines for Educational Facilities-Maintenance*, APPA: Leadership in Educational Facilities; [APPA-2] = *Capital Renewal and Deferred Maintenance Programs, 2009*, APPA: Leadership in Educational Facilities; [FMH] = Financial Management Handbook Chapter 10; [FRPP] = FY 2015 Federal Real Property Council Guidance for Real Property Inventory Reporting; [ORD] = DOE Order 430.1B; [SRPO] = Senior Real Property Officer

- iii. Major Renovation and Replacement is a complete reconstruction of a facility that has deteriorated or has been damaged beyond the point where its individual parts can be economically repaired.
- c. Building. [FRPP] A constructed asset that is enclosed with walls and a roof that provides space for agencies to perform activities or store materials as well as provides space for people to live or work.
- d. Burden Rate. [SRPO] A percentage applied to direct funded costs to account for overhead expenses including the management, oversight, and administration of activities covered by these costs incurred by a site, a field office, or headquarters. Indirect funded costs already reflect full cost recovery.
- e. Cognizant Secretarial Office (CSO). [ORD] A Program Secretarial Office that has a responsibility as an owner for a program-specific (programmatic) facility or area present on a site that is owned by another program office [i.e., the Lead Program Secretarial Office (LPSO)]. The CSO coordinates with the site owner (i.e., the LPSO) to ensure needed infrastructure support is planned and provided for its facilities or area.
- f. Corrective Maintenance. [ORD] The repair or restoration of failed or malfunctioning equipment, systems, or facilities to their intended functions or design conditions. It does not result in a significant extension of the expected service life.
- g. Deficiency. [APPA] The difference between an asset's current physical condition and its most recently configured capacity, efficiency, or capability.
- h. Deferred Maintenance. [ORD] Maintenance that was not performed when it should have been or was scheduled to be and which, therefore, is put off or delayed for a future period.
- i. Deferred Maintenance Reduction. [APPA-2] A program funded separately from maintenance, recapitalization, or new construction that results from grouping deferred maintenance activities, and sometimes other plant needs, into projects. The purpose of the program is to control a massive backlog of maintenance work.
- j. Direct Funded. [FMH] Funds allotted to a single program in support of a specific objective.
- k. Disposal. [ORD] Permanent or temporary transfer of DOE control and custody of real property assets to a third party who thereby acquires rights to control, use, or relinquish the property.
- l. Facility. [ORD] Land, buildings, and other structures, their functional systems and equipment, and other fixed systems and equipment installed therein, including site development features outside the plant, such as landscaping, roads, walks, parking areas, outside lighting and communication systems, central utility plants, utilities supply and distribution systems, and other physical plant features. These include any of the DOE-owned, -leased, or -controlled facilities, and they may or may not be furnished to a contractor under a contract with DOE.
- m. Indirect Funded. [FMH] Funds derived from overhead type charges.

- n. Lead Program Secretarial Office (LPSO). [ORD] A Program Secretarial Office (PSO) that is responsible for implementation of policy promulgated by Headquarters staff and support organizations for a field office. The LPSO owns the site, manages its own program projects, and acts as a host for tenant Cognizant Secretarial Offices or Program Secretarial Offices by providing facility and infrastructure support.
- o. Maintenance. [ORD] Day to day work that is required to sustain property in a condition suitable to be used for its designated purposes, including preventive, predictive, and corrective maintenance. Maintenance costs and work do not include the following.
 - i. Regularly scheduled janitorial work such as cleaning, and preserving facilities and equipment.
 - ii. Work performed in relocating or installing partitions, office furniture, and other associated activities.
 - iii. Work usually associated with the removal, moving, and placement of equipment.
 - iv. Work aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from or significantly greater than those originally intended.
 - v. Improvement work performed directly by in-house workers or in support of construction contractors accomplishing an improvement.
 - vi. Work performed on special projects not directly in support of maintenance or construction.
 - vii. Non-maintenance roads and grounds work such as grass cutting and street sweeping.
- p. Optimum Period. [ORD] That time in the life cycle of an asset when maintenance actions should be accomplished to preserve and maximize the useful life of the asset. The determination is based on engineering/maintenance analysis and is independent of funding availability or other resource implications.
- q. Predictive Maintenance. [ORD] Those activities involving continuous or periodic monitoring and diagnosis to forecast component degradation so that “as needed” maintenance can be scheduled.
- r. Preventive Maintenance. [ORD] Those periodic and planned actions taken to maintain a piece of equipment within design operating conditions and extend its life and performed before equipment failure or to prevent equipment failure.
- s. Quarterly Maintenance Report. [SRPO] Program office statement of planned and actual maintenance and repair expenditures spanning three months arranged by program and site against the requested maintenance and repair funds included in the President’s Budget.
- t. Programmatic Real Property. [ORD] Refers to reactors, accelerators, and similar devices used by programmatic personnel, acquired with line item funding, and listed in the Facilities Information Management System as structures under the 3000 series usage codes, including 3009, 3209, 3221, 3251 and 3261.

- u. Program Secretarial Office (PSO). [ORD] A senior program or support office which has work performed at a site, but not as the host Lead Program Secretarial Office or Cognizant Secretarial Office at that site, and provides annual program direction and guidance to the site or field manager for the work performed at the site, and for budgeting to support program work and an appropriate share of the tenant costs to the landlord.
- v. Real Property Assets (Assets). [ORD] Any interest in land, together with the improvements, facilities, structures, and fixtures located thereon, including prefabricated movable structures and appurtenances thereto, under the control of DOE. All real property owned by or leased to the Government or acquired by the Government under the terms of the contract. It includes both government-furnished property and contractor-acquired property as defined in Federal Acquisition Regulation 45.101. DOE-owned, -used and -controlled land, land improvements, structures, utilities, installed equipment, and components are included. Real property and real estate means land and rights in land, ground improvements, utility distribution systems, and buildings and other structures. Real Property Assets are defined by the Federal Property Management Regulations, 41 CFR § 102-71.20, Real Property.
- w. Repair Needs. [SRPO based on FRPP] The estimated cost to restore a real property asset's component system failures noted during a condition assessment survey to a state substantially equivalent to the most recently configured capacity, efficiency, or capability. The "needs" originate from the real property asset, not necessarily management. Repair needs will always equal or exceed deferred maintenance; the difference between the two depends on each noted deficiency's optimum period and acceptability to management.
- x. Replacement Plant Value. [ORD] The cost to replace the existing structure based on the current usage with a new structure of comparable size using current technology, codes standards and materials.
- y. Senior Real Property Officer. [SRPO] A senior-level executive designation created by Executive Order 13227 and delegated by the department secretary or agency head. The incumbent develops and implements an agency's asset management plan, monitors the agency's real property assets to ensure the assets support the goals and objectives set forth in the agency's strategic plan and adhere to the real property asset management principles developed by the Federal Real Property Council. Annually, the Senior Real Property Officer will submit an updated agency asset management plan to the Office of Management and Budget (OMB) and information on real property assets under the jurisdiction, custody, or control of that agency.
- z. Structures. [SRPO] Any fixed real property improvements to land not classifiable as a building or real property trailer, e.g., bridges, towers, roads, and fences. It also includes site utility systems used to generate or distribute any services such as heat, electricity, sewage, gas, and water.
- aa. Surveillance and Maintenance. [ORD] Activities conducted throughout the facility life-cycle, including providing, in a cost effective manner, periodic inspections and maintenance of structures, systems and equipment necessary for the satisfactory containment of contamination, and for the protection of workers, the public, and the environment.
- bb. Sustainable Products. [SRPO] Materials and equipment meeting performance requirements that are energy-efficient (Energy Star or Federal Energy Management Program (FEMP)-designated), water-efficient, biobased, environmentally preferable (e.g., Electronic Product

Environmental Assessment Tool (EPEAT)-registered), non-ozone depleting, non-toxic or contain less toxic alternatives or recycled content.

5. FOR FURTHER INFORMATION

- a. Operations and maintenance data collection, reporting, and alternative procedures; real property deferred maintenance reporting supporting required supplemental information for the DOE Annual Financial Report – Cindy Hunt (MA-50), 202-586-4539.
- b. DOE FIMS and CAIS reporting methods – Adam Pugh (MA-50), 202-287-1397.
- c. SFFAS No. 6 or 42 – Marcus Jordan (CF-11), 301-903-6280.

Appendix A

Expected Operation Cost Generating Assets

This appendix identifies the property types and usages where one might expect to find the preponderance of each of the operations costs included in the Federal Real Property Profile's operating cost data element. It also provides an alternative compliance approach for sites that do not know one or more of an asset's operations costs.

The table below assumes which classifications of assets incur the bulk of each type of operations cost collected in FIMS and the load considerations that influence the proportion of consumption in each included asset. Classifications of assets not appearing in the table below may also incur operations costs.

Commentary: FY2014 real property benchmarking by the Office of Management and Budget suggests that the Department of Energy has nearly the highest operations and maintenance cost per square foot among all federal agencies. This may be due in part to allocation of operating costs. Sites cognizant of asset-level maintenance and operations costs can make more informed facility investment decisions and may recognize efficiency improvement opportunities more easily.

Alternative Compliance Approach: Allocation of Costs

When allocating one or more operations costs, obtain program consent, document the procedures⁸ used and any plans to increase asset-level operations cost cognizance in conformance with the current Guidance for Real Property Inventory Reporting.

A progression toward developing asset level cost cognizance may include the following steps:

1. Site relies on FIMS to allocate all operations costs.
2. Site develops its own procedure for allocating some or all operations costs.
3. Site integrates into existing data collections activity or consumption information needed to estimate asset level operations costs.

⁸ FIMS has a standard method for allocating operations costs to assets. Sites relying on FIMS may simply make a note of this in their procedures.

<i>Operations Cost</i>	<i>Typical Sources of Costs</i>	<i>Principle Property Type(s), Usage(s) of Consuming Property</i>	<i>Validated Data Elements Influencing Costs</i>
Electricity Cost	Utility or fuel supplier or ESPC invoices; on-site electrical generating plant operations costs	Buildings ⁹ (all where utility usage indicated ¹⁰), Structures (3000s, 5904 – 5981, 6919, 6929 8159 – 8181, 8271, 8379, 8661)	Status, Size ¹¹ , Occupant Count
Water/Sewer Cost	Utility or ESPC invoices; on-site water or sewage treatment plants	Buildings (all where utility usage indicated), Structures (5129, 5509 – 5621)	Status, Occupant Count
Pest Control Cost	Service contracts; labor, equipment, and materials expended annually by site personnel	Buildings	Status, Occupant Count
Central Heating Cost	Fuel supplier invoices; service contracts; labor, equipment, and materials expended annually by site personnel	Structures (5809 – 5849)	Status, Size
Central Cooling Cost	Utility or fuel supplier invoices; service contracts; labor, equipment, and materials expended annually by site personnel	Structures (5729 – 5769)	Status, Size
Snow Removal Cost	Service contracts; labor, equipment, and materials expended annually by site personnel	Structures (1129 – 1169, 1209 – 1289, 1729 – 1769, 1788, 1789)	Status, Size
Gas Cost	Utility or ESPC invoices; on-site natural gas mining plants operations costs	Buildings (all where utility usage indicated)	Status, Size, Occupant Count
Refuse Cost	Service contracts; labor, equipment, and materials expended annually by site personnel	Buildings (all)	Status, Occupant Count
Recycle Cost	Service contracts; labor, equipment, and materials expended annually by site personnel	Buildings (all)	Status, Occupant Count

⁹ The term “Buildings” in this table refers to both buildings and trailers identified in the Facilities Information Management System (FIMS) separately.

¹⁰ FIMS meter fields indicate utility consumption.

¹¹ Area (e.g., square feet or acres) for buildings, trailers, and land; primary or secondary units for structures

<i>Operations Cost</i>	<i>Typical Sources of Costs</i>	<i>Principle Property Type(s), Usage(s) of Consuming Property</i>	<i>Validated Data Elements Influencing Costs</i>
Grounds Cost	Service contracts; labor, equipment, and materials expended annually by site personnel	Land (all)	Status, Size
Janitorial Cost	Service contracts; labor, equipment, and materials expended annually by site personnel	Buildings (all)	Status, Size, Occupant Count
Rent	Lease agreements including GSA occupancy agreements and invoices	Buildings (all when leased or permitted)	Size

Appendix B

Senior Real Property Officer Data Aggregation Procedures

The Senior Real Property Officer or his designee (SRPO) will fulfill the Department's reporting obligations using the data as submitted by the sites without further computations, subject to the following exceptions:

1. Maintenance budget or expenditure sufficiency

- a. Purpose: Determining the sufficiency of either planned or actual maintenance investments in a single year using the National Research Council Federal benchmark of between two and four percent of replacement value, with the expectation of an additional one to two percent (for a total of three to six percent) when the asset condition index of a program's considered portfolio falls below 0.95.
- b. Approach: The maintenance investment index (sustainment rate) will use annual actual maintenance reported in FIMS or requested in a budget submission aggregated by the CSO program from the following kinds of assets:
 - i. Property Type: Building, Trailer, and Structure
 - ii. Status: Operating, Operational Standby, and Operating Pending D&D
 - iii. Ownership: Owned
 - iv. Usage Codes: All except for 3000 series programmatic real property structures.
- c. Approach: The asset condition index and maintenance investment index will use replacement values reported in FIMS aggregated by program from the following kinds of assets:
 - i. Property Type: Building, Trailer, and Structure
 - ii. Status: Operating, Operational Standby, and Operating Pending D&D
 - iii. Ownership: Owned
 - iv. Usage Codes: All
 - v. For replacement plant value, Conventional Facility Indicator (CFI): The percentage of an asset deemed conventional and thus not cared for with programmatic funds. The replacement value considered will equal the product of a CFI value and the replacement value where the CFI value represents a percentage between zero and 100 percent.
- d. Schedule: The SRPO will complete this analysis annually in January using previous fiscal year data from the annual FIMS snapshot while preparing an annual report. The SRPO will complete this analysis with each of the three phases of the budget process.

2. Deferred maintenance reported as required supplemental information in the Department's Annual Financial Report

- a. Purpose: Present the total reportable deferred maintenance for FY2015 and FY2016 for each category appearing in SFFAS 42, Appendix B, Illustration 3 and the associated qualitative information required by paragraph 15 of the same standard.
- b. Approach: The SRPO will tally the asset-level deferred maintenance from the most recent and the previous fiscal years for active assets where:
 - i. Property Type: Building, Trailer, or Structure
 - ii. Status: Operating, Operational Standby, Shutdown Pending Transfer, Operating Pending D&D, and Operating Under an Outgrant
 - iii. Historic Designation: For "General PP&E," Non-Contributing Element, Not Evaluated, and Evaluated, Not Historic; For "Heritage Assets," National Historic Landmark, National Register Listed, and National Register Eligible
 - iv. Ownership: Owned
 - v. Usage Codes: All
- c. Approach: The SRPO will tally the asset-level deferred maintenance from the most recent and the previous fiscal years for inactive assets screened internally for excess where:
 - i. Property Type: Building, Trailer, or Structure
 - ii. Status: All other status codes not listed above
 - iii. Excess Indicator: Yes
 - iv. Ownership: Owned
 - v. Usage Codes: All
- d. Approach: The SRPO will prepare a qualitative narrative that addresses the Department's:
 - i. Definitions of maintenance and repair, methods for estimating reporting deferred maintenance, and policies for prioritizing maintenance and repair;
 - ii. Criteria for acceptable condition, currently an asset condition index of 0.95¹² or better, and the percentage of assets in (b) and (c) above by count with an asset condition index equal to or greater than 0.95; and,
 - iii. Deferred maintenance growth or reduction between the most recent and previous fiscal years when the change equals or exceeds ten percent.
- e. Schedule: The SRPO will complete this analysis annually during the first week of October using previous fiscal year data from the FIMS deferred maintenance snapshot.

¹² Asset Condition Index (ACI) = $1 - \left(\frac{\text{Deferred Maintenance (DM)}}{\text{Replacement Plant Value (RPV)}} \right)$

3. Operating Costs as required by the Federal Real Property Profile

The SRPO will submit the sum of each asset's operations and annual actual maintenance costs. For more details, see the annual Federal Real Property Profile reporting guidance memorandum issued by the SRPO.

Appendix C

Federal Real Property Council Data Aggregation Procedures

On behalf of the Federal Real Property Council, the Office of Government-wide Policy, General Services Administration, will automatically calculate the Condition Index for each real property asset.

1. Condition Index

- a. Approach: The GSA/OGP uses the following formula to calculate condition index:

$$\text{Condition Index (CI)} = \left[1 - \left(\frac{\text{Repair Needs}}{\text{Replacement Plant Value (RPV)}} \right) \right] \times 100$$

Note: an acceptable calculated value may be negative.