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MEMORANDUM FOR PROGRAM SECRETARIAL ELEMENTS

FROM: PAUL BOSCO *PB*
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CONSTRUCTION MANAGEMENT

SUBJECT: Guidance for Facility Information Management System (FIMS)
Validations

REFERENCE: DOE Order 430.1B Real Property Asset Management

The Facility Information Management System (FIMS) is the Department's official repository of real property data. The Department relies on the FIMS data for real property decision-making and accounting of its \$86B in assets. Moreover, FIMS data is supplementally reported within the Department's financial statements and the General Services Administration's Federal Real Property Profile. Therefore, maintaining accurate and credible data in FIMS is critical to efficient operations and resource planning.

The referenced Order requires FIMS data be validated by site managers and contractors. Attached is the Fiscal Year 2009 FIMS Validation Guidance. The major change in FY 2009 is the requirement to include Other Structures and Facilities in the validation process.

If additional information is needed, please contact Phil Dalby at (202) 586-4548.

Attachment

cc: Administrator, Southeastern Power Administration
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CF-20
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FISCAL YEAR 2009 FACILITIES INFORMATION MANAGEMENT SYSTEM VALIDATION GUIDANCE

1. Background:

- a. The Facilities Information Management System (FIMS) is the Department's official repository of real property data.
 - i. FIMS data is used in day-to-day decision-making and to measure the cumulative outcomes of real property decisions on the portfolio condition and utilization; key indices with the Department's Asset Management Plan.
 - ii. The quality of the decisions made from the FIMS is a function of the accuracy of the underlying data.
- b. Department of Energy Order 430.1B *Real Property Asset Management* requires FIMS data be accurately populated and annually validated.

2. Purpose of the Guidance:

- a. Identify the roles, responsibilities and expected outcomes of the FIMS validation process.
- b. Standardize the minimum validation criteria.

3. Desired Outcome of the Validation Program:

- a. Demonstrate at a 90% confidence level that the validated FIMS data elements are being maintained without material variance when compared to known accurate source data.
- b. Appendix A provides information on source data and criteria for acceptable source data.

4. References and Supporting Information:

- a. FIMS Website: <http://fimsinfo.doe.gov>
- b. DOE Order 430.1B Real Property Asset Management (RPAM)

5. Applicability:

- a. This guidance directly supports the goals of DOE Order 430.1B Real Property Asset Management and is therefore applicable to all real property owning Programs.

- i. This guidance identifies minimum Departmental outcomes. Programs may elect to add additional reporting requirements or validate other data fields in addition to those identified in this guidance.
- ii. Programs may elect to implement their validation program through a centrally managed team or “*center of excellence*” in lieu of Site delegation.

6. Requirement:

- a. Each Site’s FIMS data must be validated once each fiscal year between December 15th and June 30th. At multi-program sites, the Lead Program Secretarial Office (LPSO) is responsible for the accuracy of FIMS data at the site. The LPSO is responsible for planning, scheduling, coordinating and conducting the FIMS data validation for the entire site as well as developing a Corrective Action Plan (CAP) if the site should score Red in Status.
 - i. For example, at Idaho National Laboratory, a multi-program site, only one FIMS data validation needs to be conducted by the Office of Nuclear Energy (NE) as the LPSO. The validation includes a sample of both the NE and the Office of Environmental Management (EM) buildings, real property trailers, and a sample of NE’s and EM’s Other Structures and Facilities (OSF’s). One scorecard would be generated for buildings and real property trailers and one scorecard would be generated for OSF’s. NE as the LPSO would develop and implement the Corrective Action Plan, if required.

7. Roles and Responsibilities:

- a. Headquarters, Office of Engineering and Construction Management (OECM):
 - i. Develop minimum departmental criteria for validation.
 - ii. Establish validation process and associated training class.
 - iii. Make standard forms, supporting information and materials readily available.
 - iv. Provide overall management of the FIMS database.
 - v. Perform quality assurance visits to verify consistency in the application of the validation program (performed with the Programs).
 - vi. Oversee implementation of the overall program and measure success.

b. Programs:

- i. Disseminate minimum departmental criteria and additional programmatic criteria for validation.
- ii. Provide validation schedule to OECM by December 15th each fiscal year.
- iii. Maintain validation capability to support Site Office and Management and Operations contractor (M&O) based validation.
- iv. Verify Site Office compliance with validation guidance and provide copies of the scorecards to OECM as the validations are completed.
- v. Work with the sites that received red scores in status and oversee execution of the Corrective Action Plan.
- vi. Provide OECM a copy of Site's Corrective Action Plan or provide OECM conformation that site(s) with a red score in status have developed and initiated a Corrective Action Plan. Provide quarterly updates until corrective actions are complete.

c. Site Office:

- i. Verify Management and Operations contractor (M&O) is maintaining accurate FIMS records.
- ii. Perform quality control of validation efforts and if necessary, establish and track progress on the Corrective Action Plan.
- iii. Report validation results to Headquarters Program office when validation is complete. Provide Scorecard and supporting validation backup forms for sampled assets. Results should be reported within five business days to Program headquarters.
- iv. Coordinate with the M&O to schedule the annual validation and notify Program HQ by December 1 of the schedule date(s).
- v. Schedule and notify Program HQ (within 60 days) of any required revalidation (within six months) as a result of a Red Score.
- vi. Maintain validation scorecards and results for five fiscal years.

d. M&O Contractor:

- i. Consistent with the implemented Contractor Requirements Document contained in DOE Order 430.1B Real Property Asset Management:

1. Maintain FIMS real property inventory system complete and current throughout the life cycle of the real property assets.
2. Staff and conduct FIMS validations.
3. Prepare the Corrective Action Plan (if required) within 30 days of any Red Score.
 - a. Provide recommended schedule / dates to Site Office, within 45 days, for the required revalidation as a result of a Red Score.
 - b. Execute Corrective Action Plan to correct deficiencies in data and processes and conduct a follow-up revalidation within 6 months on the sites real property assets.
4. Facilitate quality control.
5. Provide assistance with site visit activities, including on site walk-throughs during the FIMS data validation.

8. Validation Program Elements:

- a. **Support materials and resources:** See the FIMS validation library at http://fimsinfo.doe.gov/data_validation.htm for the most recent process support materials including training materials, validation forms, random sample generators and scorecard tools.
- b. **Frequency and Timing:** As indicated in Figure 1, validations are required annually. (Semi-annually for Sites with a red status.)
 - i. Beginning in Fiscal Year 2008, validations shall be completed by June 30th of each year.
 1. Sites should schedule validations to allow ample time to correct data issues prior to the update of their Ten Year Site Plans and population of the Federal Real Property Profile (FRPP).
 2. If a site is required to conduct a revalidation from prior fiscal year and that revalidation falls within the following fiscal year, and the site is then scored Green or Yellow on that revalidation, the revalidation score shall satisfy the requirement for the current fiscal year as well as the revalidation.

- ii. Validations should not normally be conducted during the annual update cycle for FIMS data which runs from August 1st through December 15th each year.

	Superior Status (Green Status)	Minimal Acceptable (Yellow Status)	Unacceptable (Red Status)
Site Level. Site provides quality control.	Annual	Annual	Semi-annual
Program/Headquarters Level Quality Assurance	Every Five Years ¹	Every Five Years	Annual ²

Figure 1 - Minimum Time Periods for Validation Activities

c. Team:

- i. The validation team will include a designated team leader who has successfully completed the FIMS data validation training.
 - 1. FIMS Data Validation training will be conducted twice a year. Contact OECM or visit the FIMS validation library at: http://fimsinfo.doe.gov/data_validation.htm for schedule and location of training.
- ii. The team includes at least one member familiar with the Site’s FIMS records keeping i.e., FIMS administrator.
- iii. To maintain the integrity of the process, the validation team will have at least two full time participants. Other members of the team may be rotated in and out as needed.

d. FIMS Data Elements to Validate:

- i. Currently, the validation process consists of the first 23 of the 25 Federal Real Property Council (FRPC) performance measures and data elements (see list below) for buildings and real property trailers.
- ii. In FY 2009 OSF’s will be validated on a separate scorecard from buildings and real property trailers. See Appendix A for data elements that must be validated for OSF’s.

¹ May be coordinated with annual validation activities. HQ would witness the validation.

² Sites judged to be red in status should receive additional attention from Program/Headquarters elements until they have corrected their data and processes in such a way as to satisfy at least a yellow standard.

iii. The 25 FRPC data elements and performance measures are listed below. The FRPC performance measures are in bold type and are held to a higher standard of reliability. See below:

1. Property Type
2. Usage Code
3. Owned/Ingrant
4. Status
5. Historic Designation
6. Reporting Agency
7. Using Organization
- 8. a. Size; 8b. Net Square Feet**
- 9. Utilization**
- 10. Replacement Plant Value**
- 11. a. Asset Condition Index (ACI); 11b. Deferred Maintenance**
- 12. Mission Dependency**
- 13. a. Annual Operating Cost; 13b. Annual Actual Maintenance**
14. Main Location
15. Real Property Identifier (Property Sequence Number)
16. Location City
17. Location State
18. Location Country
19. Location County
20. Location Congressional District
21. Location Zip Code
22. Installation Identifier (Site Name, Site Number, and Area Number)
23. Restrictions
24. Dispositions - Not Validated
25. Sustainability – Not validated in FY 2009 but will be validated in FY 2010.

iv. Lease data will be validated in the future.

e. Source data:

- i. In general, source documentation is authoritative data the FIMS administrator would use to enter or update data in FIMS. Source data must have an owner, be managed, dated, and updated at appropriate intervals.
- ii. Source data is expected to be updated annually for the following data elements: Usage Code, Status, Using Organization, Utilization, RPV, Deferred Maintenance, Mission Dependency, Annual Operating Costs, and Annual Actual Maintenance. The remainder of the data elements should be updated as appropriate when data changes.

- iii. Appendix A provides a Source Documentation Worksheet that should be completed at least one week prior to the scheduled FIMS data validation.
 - iv. Downloading or printing FIMS data and having individuals sign off that the FIMS data is valid, is not acceptable for use as source documentation.
- f. Process:** Validation is a process for assuring the accuracy of FIMS data by comparing FIMS data taken from a representative sample against its source data.
- i. Determine sample size: Use the Sample Size Chart (website link is on FIMS data validation page: http://fimsinfo.doe.gov/data_validation.htm to identify the number of buildings/real property trailers or OSF's to include in the random sample set. These numbers are based on providing a 90% confidence level in the FIMS data.
 - ii. Selecting a FIMS Random Sample: The random sample selection will be in accordance with the validation training materials (see FIMS data validation training PowerPoint slides at: http://fimsinfo.doe.gov/data_validation.htm).
 - 1. The random sample will not be generated before the kick-off meeting without OECM's approval.
 - 2. At multi-program sites, the random sample will be pulled from all assets regardless of Program ownership.
 - 3. For Fiscal Year 2009, validation will be performed on non-archived buildings, real property trailers (FIMS asset type 501) and OSF's.
 - a. Buildings and real property trailers will be captured in one random sample and reported on one scorecard.
 - b. Sample size will be based on the total number of DOE owned buildings and real property trailers located at the site.
 - c. OSF's will be captured on a second random sample and reported on a separate scorecard.
 - d. Sample size for OSF's will be based on the total number of DOE owned OSF's located at the site.
 - 4. Generate random sample: Use Standard [Report #70](#) to randomly select a sample set of buildings and real property trailers.

Generate a separate random sample using Standard Report #70c for OSF's. (The sample size was determined in i. above.)

- iii. Outlier Selections: Standard [Report #70a](#) can be used to identify buildings, real property trailers, and OSF's with high RPV, Deferred Maintenance, or Gross Square Footage. This report can be used to identify outliers that should be included in the sample set.
- iv. FRPC Data element Report: Standard [Report #70b](#) can be used to extract all FRPC data elements for a particular building, real property trailer or OSF. This report is beneficial for selecting all FRPC data elements for buildings, real property trailers, or OSF's selected as outliers.
- v. Compare FIMS data with source data: For each real property asset the value in FIMS from Report #70 is compared to the Sites source data. Use the Auto Populate Data Validation Reporting Forms on the FIMS website at: http://fimsinfo.doe.gov/data_validation.htm.
 1. A material variance occurs when a difference of 10% or more for numeric data (deferred maintenance, replacement plant value etc.) and any difference for non-numeric data (usage code, zip code, state etc.) is encountered.
 2. Calculate the frequency of material variance for each data element. (i.e. in a sample of 25 records containing 5 material variances, the frequency of material variances would be $5/25=.2$ or 20 percent). This is automatically calculated by the Auto Populate Data Validation Forms found on the FIMS website.
- vi. Facility visit: No less than 10% of the random sample shall be subject to a walk-through to cross check source data and FIMS data against actual asset. It is recommended that a walk-through should be conducted on approximately 30% of the building/real property trailer and OSF random sample size (i.e. for a building/real property trailer sample size of 25, walk-through five to seven buildings or real property trailers). This is not a detailed facility inspection, but an overview to verify that the actual conditions of the real property asset are consistent with source data and FIMS data. The purpose of the walk-through is:
 1. Provide a check on the source data. Errors found in source data are more serious than those found in FIMS data. If source data errors are found they should be noted on the validation worksheets and the element(s) rescored. Additional walk-through inspections should be considered to determine if the error in source data is widespread or an anomaly for one asset. In general, if errors are

found in source data, the element will be considered “Red” because the source data is unreliable.

2. Provide an additional check on FIMS data for the validation. If errors are found during the walk-through they should be noted on the validation worksheets and the data element rescored.

g. Scoring: Site FIMS data shall be scored based on a red, yellow and green scorecard for Status of the overall data (accuracy of the existing database) and Progress towards improvement.

- i. Each of the FRPC data elements shall be scored based on the frequency of material variance as noted in Figure 2.³

Score	Green	Yellow	Red
Data Element	No more than a 5% frequency of material variance	No more than 10% frequency of material variance	Greater than 10% frequency of material variance

Figure 2 - Scoring of Specific Elements

- ii. The overall Status score is generated as a result of the compilation of the scoring of specific data elements.

1. The *Status* score is a direct result of the frequency of material variance identified within each of the FRPC data elements as indicated in Figure 3.

³ Frequency of material variance = the percent of records found within the random sample (including outliers selected for validation) judged to contain a material variance.

FIMS Scorecard Status Score	Performance Measures *	Remainder of FRPC Elements	Notes
Green	All elements green	All elements at-least yellow	Preferred level of data quality
Yellow	Any element yellow	No more than one red element	Minimal acceptable level of data quality
Red	Any element red	More than one red element	Unacceptable data quality
*FRPC Performance Measures: Replacement Plant Value, Deferred Maintenance, Utilization and Net Square Feet, Mission Dependency, Annual Operating Costs, Annual Actual Maintenance			

Figure 3 - Scoring of Status

2. Sites scored red in Status must develop a Corrective Action Plan and report progress toward implementation of the plan.
- iii. A Progress Rating of Green, Yellow or Red is developed based on the Site's efforts to improve FIMS data since its last validation.
1. The Progress score is based on the management of the Corrective Action Plan and demonstrated improvement in the data since the last validation.
 2. Progress scoring is identified in Figure 4.

FIMS Scorecard Progress Score	Improvement of Data	Goals of the Corrective Action Plan	Notes
Green	Status is green or significant improvement since last validation.	Goals established and being met or no plan needed.	If Status is green or yellow, no correction plan is required and progress is typically green.
Yellow	Some improvement in data quality since last validation.	Progress is slipping.	
Red	Minimal improvement in data quality since last validation.	Goals for improvement not being met.	

Figure 4 - Scoring of Progress

9. Reporting and Record Keeping:

- a. Site offices will maintain validation documentation (work sheets, scorecards, random sample, corrective action plans, etc.) for at least five fiscal years.
 - i. Documentation is necessary to simplify quality assurance, spot trends and identify areas for improvement.
 - ii. Maintaining documentation for five fiscal years aligns with quality assurance goals and inspection periods identified in DOE Order 430.1B.
- b. Sites will provide scorecards and validation schedules to their Headquarters Program office consistent with guidance and timeframes noted previously in Section 7 - Roles and Responsibilities.
- c. Programs will forward scorecards to OECM when each site completes its FIMS validation or required revalidation.

Appendix A

Source Documentation Work Sheet

1. To be completed one week prior to the FIMS data validation and provided to each of the validation team members.
2. In general, source documentation is authoritative data the FIMS administrator would use to enter or update data in FIMS. Source data must have an owner, be managed, dated, and updated at appropriate intervals.
3. Source data is expected to be updated annually for the following data elements: Usage Code, Status, Using Organization, Utilization, RPV, Deferred Maintenance, Mission Dependency, Annual Operating Costs, and Annual Actual Maintenance. For the remainder of the elements there is no expiration date for source data.
4. If there is no historic source documentation for a particular data element, and it can't be generated elsewhere, it is acceptable to develop a table from data currently in FIMS for that particular data element, have the Site's Subject Matter Expert (SME) review the data, make needed corrections, and sign and date the table indicating that he/she certifies the data is accurate. The table can only contain one data element and must be certified by only the SME indicating they have personally reviewed and certified the data as correct. This procedure can not be used for the following FRPC data elements: Size, Net Usable Square Feet, Utilization, Replacement Plant Value, Deferred Maintenance, Annual Operating Costs and Annual Actual Maintenance.
5. Note: Downloading or printing FIMS data for multiple data elements and having several individuals sign off that the FIMS data is valid, is not acceptable for use as source documentation.

FRPC Data Element	Source Document Owner	Validation Required For	Process For Obtaining Source Data	Typical Acceptable Source
1. Property Type Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		As-builts, property documentation records, dated list of assets validated by Engineering or appropriate office managing real property. Source used: Source date:
2. Usage Code Update: Annually	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Dated list of assets validated by the Site Manager or appropriate office managing real property familiar with FIMS usage codes. Source used: Source date:
3. Owned/Ingrant Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Dated list of assets validated by the Site Manager/Real Estate. Source used: Source date:
4. Status Update: Annually	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Dated list of assets validated by Site Manager or appropriate office managing real property. Source used: Source date:
5. Historic Designation Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Documented report from SHPO or dated list of assets validated by office coordinating with SHPO. Source used: Source date:
6. Reporting Agency	System Generated.			
7. Using Organization Update: Annually	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Dated list of assets validated by Site Manager or cognizant office. Source used: Source date:
8a. Size Buildings and Trailers. Gross Sqft. For OSFs Validate primary quantity and secondary quantity if applicable. Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		As-built drawings, property documentation records, or <u>dated list of assets with GSF and NSF validated by Engineering or appropriate office managing real property.</u> For OSFs documentation from sites subject matter expert (SME) (i.e. if as builds were not available for an underground tank a memo from the tank farm manager stating the size of the tank could be used as source data). Source used: Source date:

FRPC Data Element	Source Document Owner	Validation Required For	Process For Obtaining Source Data	Typical Acceptable Source
8b. Net Usable Sqft Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings. Don't validate for Trailers and OSFs	Process used to convert GSF to Net Square Feet	Gross Square Feet. Source used: Source date:
9. Utilization Update: Annually	Name: Phone: Email: Position: Company:	Buildings and Real property Trailers. Don't validate OSFs		Site generated Utilization Report, must be approved by Site Manager or appropriate office. Source used: Source date:
10. Replacement Plant Value (RPV) Update: Annually	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs	Must have rational for contractor generated RPVs.	For buildings and real property trailers RS Mean's w/FIMS models, Cost Works, or other documented model that provides a true replacement value. Do not use Current Plant Value (CPV) for buildings and trailers. For OSFs provide cost estimate. Could be a rough estimate from sites SME. CPVs for OSFs are acceptable. Source used: Source date:
11a. Condition Index	System Generated			
11b. Deferred Maintenance (DM) Update: Annually	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		CAIS reports. Other documented methods that includes a physical inspection of the building. Provide evidence the physical inspection has been performed within the last five years. Source used: Source date:
12. Mission Dependency Update: Annually	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		List of assets validated by Site Manager. Source used: Source date:
13a. Annual Operating Cost Update: Annually	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs	Did site input any asset level operating costs? Yes/No	Invoices from utility and service providers. Or site financial reports from CFO. If site allocates costs to the asset level provide procedures. Source used: Source date:
13b. Annual Actual Maintenance Update: Annually	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs	Captured at asset level? Yes/No	Site financial reports from CFO. If site allocates costs to the asset level provide procedures. Source used: Source date:

FRPC Data Element	Source Document Owner	Validation Required For	Process For Obtaining Source Data	Typical Acceptable Source
14. Main Location Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Memo from Admin/transportation. Post Office. Source used: Source date:
15. Real Property Identifier	System Generated.			
16. Location City Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Memo from Admin, Transportation, or Post Office. Source used: Source date:
17. Location State Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Memo from Admin, Transportation, or Post Office. Source used: Source date:
18. Location Country	System Generated.			
19. Location County Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Memo from Admin, Transportation, or Post Office. Source used: Source date:
20. Location Congressional District Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Memo from Admin, Transportation, or Post Office. Source used: Source date:
21. Location Zip Code Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Memo from Admin, Transportation, or Post Office. Source used: Source date:
22. Installation Identifier	System Generated.			
23. Restrictions Update: As appropriate	Name: Phone: Email: Position: Company:	Buildings, Real property Trailers and OSFs		Dated list of assets validated by Environmental/Real Estate or other office that tracks restrictions on real property. Source used: Source date: