

CHANGE REQUEST COVER SHEET

Change Request Number: 12-20A

Date Received: 12/14/2011

Title: Sustainability/Environment/Energy

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Policy OR Guidance: Guidance

Section/Text Location Affected: 1.1.3.1, 2.4.16, and the documents for Attachment A to Space Lease, Attachment B to Space Lease, and Space Solicitation Information (These three documents will be sent via email)

Summary of Change: Adding information to be compliant to the laws and regulations relating to sustainability, environment and energy.

Reason for Change: FAA needs to ensure that we are compliant to the mandates set by Congress and the President on sustainability, environment and energy.

Development, Review, and/or Concurrence: ALO-200, ALO-300, AGC-520, WLSA, ELSA and CLSA, Environmental Support

Target Audience: Real Estate Contracting Officer

Potential Links within FAST for the Change: N/A

Briefing Planned: No

ASAG Responsibilities: None

Potential Links within FAST for the Change: N/A

Links for New/Modified Forms (or) Documents (LINK

1) <http://fast.faa.gov/docs/attachmenta.doc>

Links for New/Modified Forms (or) Documents (LINK

2) <http://fast.faa.gov/docs/attachmentb.doc>

Links for New/Modified Forms (or) Documents (LINK

3) <http://fast.faa.gov/docs/spacesolicit.doc>

SECTIONS ADDED:

Real Estate Guidance :

Section 1.1.3.1 : Environmental / Sustainability / Energy [\[New Content\]](#)

Real Estate Guidance :

Section 2.4.16 : Environmental / Sustainability / Energy [\[New Content\]](#)

Real Estate Guidance :

Section 2.4.16.4 : HPSB Appendix D: HPSB Definitions [\[New Content\]](#)

Real Estate Guidance :

Section 2.4.16.3 : HPSB Appendix C: Frequently Asked Questions on Guiding Principles [\[New Content\]](#)

Real Estate Guidance :

Section 2.4.16.2 : HPSB Appendix B: Guiding Principles for Federal Leadership in HPSB [\[New Content\]](#)

Real Estate Guidance :

Section 2.4.16.1 : HPSB Appendix A: Federal Leadership in HPSB MOU [\[New Content\]](#)

SECTIONS ADDED:

Real Estate Guidance :

Section 1.1.3.1 : Environmental / Sustainability / Energy

1.1.3.1 – Environmental/Sustainability/Energy

During the land acquisition process, Real Estate Contracting Officers (RECOs) are required to follow the requirements as set forth below in the following laws, executive orders, regulations, policies and orders:

1. Energy Policy Act (EPA) of 2005, Publ.L.No.109-58
2. Energy Independence and Security Act (EISA) of 2007, Pub.L.No.110-140
3. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
4. National Environmental Policy Act (NEPA)
5. FAA EDDA Order 1050.19B: "Environmental Due Diligence Audits in the Conduct of FAA Real Property Transactions" and any revisions thereto or subsequently published Orders pertaining to environmental compliance
6. Resource Conservation and Recovery Act (RCRA)
7. Executive Order 11988, Floodplain Management
8. Executive Order 11990, Protection of Wetlands

A. Environmental Due Diligence Audits (EDDA) Requirements

FAA real property transactions are subject to the requirements of FAA Order 1050.19B, Environmental Due Diligence Audits (EDDA) in the Conduct of FAA Real Property Transactions, in order to identify and minimize potential environmental liabilities associated with the condition of the property and past activities at the site. After the EDDA process, the determination of whether to waive the performance of an EDDA must be completed prior to the execution of contracts for the acquisition or disposal of real property per 1050.19B.

Off-airport land acquisitions of new sites, or that result in the expansion of an existing site, require an EDDA per 1050.19B. All on-airport leases or no-cost on-airport acquisitions that utilize the Memorandum of Agreement (MOA) template will use the Hazardous Substance Contamination clause, preferably the version included in the template, unless an EDDA is required pursuant to FAA Order 1050.19B. In accordance with FAA Order 1050.19B, any revisions to the Hazardous Substance Contamination clause must be reviewed by and concurred by the appropriate Regional Counsel's office or the Office of the Assistant Chief Counsel for Acquisition and Commercial Law (AGC-500). Any revisions to the Hazardous Substance Contamination clause will not be approved if such revisions result in a provision that increases FAA's potential environmental liability beyond that which can be proven to have resulted directly from FAA's use of the site and/or operation of equipment on site.

Question and Answers concerning FAA Order 1050.19B

Q 1: Is the RECO required to obtain a memorandum as stated in 1050.19B 1-9b(3) or an EDDA if the RECO is renewing a land lease?

A 1: Except as otherwise set forth in section 1050.19B 1-9b(3), the EDDA Order will be revised to provide that, if the transaction is simply the renewal of an existing land lease without changing any of the substantive terms and requirements thereof (e.g., staying in the same location and not moving the NAS equipment), the RECO will not be required to request an EDDA be conducted or to complete the memorandum.

The following represents the language to be revised in the FAA Order 1050.19B 1-9b(3):

B. EDDA Not Required. An EDDA will not be required for real estate transactions listed in the paragraphs below. For such transactions, a *memorandum*, referenced in Appendix B, must be included in the real property transaction file explaining the rationale for not conducting the EDDA and also indicating that coordination between the Organization Requesting the Transaction (ORT), technical reviewer (TR), and Legal Counsel occurred, and the action was approved. **Except as otherwise set forth in (3) Lease renewals, all other transactions require the memorandum.**

1. Real property transaction involving leasing of office space, and not otherwise required under paragraph 1-9.d.
2. Easements or right-of-way access agreements where the FAA is not performing any operations on the property in these agreements, and not otherwise required under paragraph 1-9.d.
3. Lease renewals.
4. Termination of leases for property that was leased but never used by the FAA.

Q 2: Are we required to use the "hazardous substance clause" in its entirety for an airport lease or MOA?

A 2: If the requirements imposed upon the Airport Sponsor by FAA conflict with that Sponsor's requirements under state law, and provided that any revisions to, or deletions from the clause which received the concurrence of the appropriate FAA Regional or Center Counsel or the Office of the Chief Counsel for Acquisition and Commercial Law (AGC-500), then the RECO has the authority to revise the Hazardous Substance Contamination clause found in the "Land On Airport Lease Template" (clause #21) and the "MOA". However,

under no circumstances may the clause be revised to increase FAA's potential liability beyond that incurred as a direct result of FAA's actions installing, operating, and/or maintaining of the facility or equipment that FAA has placed on the demised premises. An example of an acceptable revision to the Hazardous Substance Contamination clause is set forth below:

HAZARDOUS SUBSTANCE CONTAMINATION (MAY-00): The Government agrees to remediate, at its sole cost, all hazardous substance contamination on the leased premises that is found to have occurred as a direct result of the installation, operation, and/or maintenance of the (type of facility) facility. The Lessor agrees to remediate at its sole cost, any and all other hazardous substance contamination found on the leased premises. ~~The Lessor also agrees to save and hold the Government harmless for any and all costs, liabilities and/or claims by third parties that arise out of hazardous contamination found on the leased premises not directly attributable to the installation, operation and/or maintenance of the (type of facility) facility.~~

B. National Environmental Policy Act (NEPA) Requirements

In accordance with the requirements of FAA Order 1050.1E, Change 1, Policies and Procedures for Considering Environmental Impacts, before acquiring (by lease, purchase, or otherwise) any additional land (new sites or expanding existing sites), the FAA must comply with the requirements of the National Environmental Policy Act (NEPA) to the extent applicable to such acquisitions. The appropriate level of environmental review must be determined by the program office Environmental Specialist or the project designated Environmental Specialist.

The three levels of environmental review include:

- Categorical Exclusion (CATEX),
- Environmental Assessment (EA), or
- Environmental Impacts Statement (EIS).

In the absence of Extraordinary Circumstances (e.g., the presence of wetlands), most real property acquisition transactions can be categorically excluded by the program office from further environmental review. Chapter 3 of FAA Order 1050.1E, Change 1 provides information on CATEXs and the application of extraordinary circumstances. Specifically, paragraph 310 provides the list of categorical exclusions for FAA actions involving facility siting, construction and maintenance.

If there are extraordinary circumstances directly applicable to the site acquisition, and consequently, the action cannot be categorically excluded from further environmental review then the EA must be initiated by the Environmental Specialist. If the impacts are not significant the environmental review will end with a Finding of No Significant Impact (FONSI).

If any impact to the site attributable to FAA's acquisition or the proposed use of the site, is found to be significant and cannot be mitigated then an EIS must be initiated by program office. The EIS process ends in a Record of Decision.

The environmental review process must be complete before negotiating the acquisition of any new and additional land interests. The RECO must obtain written notification from the program office that all applicable NEPA requirements have been met, which would include all required EDDA documentation, prior to proceeding with the land acquisition including all required EDDA documentation. The written notification and additional documentation must be placed in the real estate lease file. Once the RECO receives the written notification, the RECO can proceed with the real property transaction for any new or additional land acquisition. The office requesting the land acquisition is responsible for keeping the official documentation for the NEPA review. It is not necessary for the RECO to obtain copies of the CATEX, EA, FONSI, EIS or Record of Decision.

Real Estate Guidance :

Section 2.4.16 : Environmental / Sustainability / Energy

2.4.16 - Environmental/Sustainability/Energy

A. Guidance

FAA is required to significantly reduce the negative environmental effects of constructing, leasing, operating and maintaining and demolishing buildings. Some of the potential results from successful reduction of negative environmental effects may include: 1) a reduction in total life-cycle costs of facilities through the improvement of energy efficiency and the implementation of alternative energy technologies; 2) a reduction in total adverse environmental impacts by the reduction of carbon emissions; and 3) an enhancement of the safety, health and productivity of FAA employees through the reduction in the use of toxic chemicals in buildings.

1. High Performance Sustainable Buildings

Executive Order (EO) 13423, Strengthening Federal Environmental, Energy, and Transportation Management, dated January 24, 2007, and EO 13514, Federal Leadership in Environmental, Energy, and Economic Performance, dated October 5, 2009, require federal agencies to comply with the Guiding Principles for High Performance and Sustainable Buildings (Guiding Principles). The Guiding Principles establish building standards for:

- Integrated design,
- Energy performance,
- Water conservation,
- Indoor environmental quality, and
- Building materials.

The Interagency Sustainability Working Group (ISWG), established by EO 13423, issued the current version of the Guiding Principles on December 1, 2008, which includes standards for building construction and major renovation, as well as standards for building operation and maintenance (HPSB Appendix).

The EOs direct the FAA to incorporate the HPSB Guiding Principles into 15% of its existing owned and directly leased occupied building inventory greater than 5,000 square feet (it should be noted that Energy Independence and Security Act (EISA) requires Energy Star labeled buildings for 10,000 gross square feet or above) by 2015 and demonstrate annual

progress thereafter toward 100% conformance. FAA's strategy to meet this mandate includes acquiring green leases.

New or succeeding lease space and space which FAA shall continue to occupy through a succeeding lease must meet the Guiding Principles (HPSB Appendix). A RECO can identify buildings that will meet the Guiding Principles by looking for Energy Star labeled buildings or buildings that have received Leadership in Energy and Environmental Design (LEED) certification. A RECO may pay more for sustainable lease spaces to the extent that funds are available. The space acquisition shall be considered financially feasible if the rental offer for space in a conforming building is no more than 10% greater than the market rate for a comparable conventional building in the same rental market. If the market does not support buildings that meet the Guiding Principles (e.g., the RECO is unable to obtain sufficient competition for HPSBs, the offered rental rates are excessive, etc.), then the RECO must provide written justification for the inability to meet the Guiding Principles in the Negotiator Report. Notwithstanding the foregoing, the RECO shall include within the solicitation all AMS provisions applicable to the acquisition of sustainable or "green" space.

2. Energy Star Buildings

As of December 19, 2010, Section 435 of the EISA mandates that, if financially feasible, all new space must be acquired in buildings having either an Energy Star label for the most recent year, or a commitment from the Lessor to earn the Energy Star label within one year of signing the lease. The acquisition shall be considered financially feasible if the proposed rental is no more than 10% over the market rate for a comparable building in the same rental market. Regardless of whether or not acquiring space in an Energy Star designated building is financially feasible, the RECO shall incorporate all AMS provisions applicable to the acquisition of sustainable or "green space", which include the provisions for Energy Star designation, into the Solicitation for Offer (SFO).

In addition to financial infeasibility, there are four other exemptions to the requirement for the Energy Star label that are allowable. They are the following:

1. No space is offered in a building with an Energy Star label in the delineated area that meets the functional requirements of an agency, including location needs;
2. The agency will remain in a building they currently occupy;
3. The lease will be in a building of historical, architectural, or cultural significance verified by listing or eligibility for listing on the National Register of Historic Places;
or
4. The lease is for no more than 10,000 gross square feet of space.

The determination of whether or not a particular building meets the requirements for an exception to the requirement for an Energy Star label, shall be based upon a review of supporting documentation submitted to the RECO by the Lessor/Offeror. If the documentation submitted is determined sufficient to establish such an exception, the Lessor/Offeror shall be required to renovate the subject building with all energy efficiency and conservation improvements that would be cost effective over the life of the lease. As mentioned in the HPSB Guidance, a RECO may pay more for sustainable lease spaces to the extent that funds are available. The acquisition of space that complies shall be considered financially feasible if the rental offered for a conforming building is no more than 10% over the market rate for a comparable conventional building in the same rental market. As

stated previously, if unable to obtain space designated as Energy Star compliant, the RECO must provide written justification for such inability in the Negotiator Report.

B. Applicability of Sustainability Requirements to FAA Space Acquisition

The requirements of this section apply to all FAA owned and leased buildings reported in the Real Estate Management System (REMS). The FAA has updated its inventory of buildings and is working towards meeting the EO 13423 and 13514 and EISA requirements regarding High Performance Sustainable Buildings (HPSB). HPSB requirements apply to space and buildings having the following characteristics: 1) owned or leased; 2) occupied; 3) and over 5,000 square feet (Guiding Principles).

C. Laws, Executive Orders, Regulations and Other Policies Applicable to Sustainability

Legal and other programmatic requirements for the acquisition of space in sustainable buildings include:

1. Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance, 74 FR 52117, October 5, 2009
2. Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management, 72 FR 2763, January 23, 2007
3. Office of Management and Budget (OMB) Circular No. A-11, June 27, 2002
4. Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding
5. Energy Policy Act (EPA) of 2005, Publ.L.No.109-58
6. Energy Independence and Security Act of 2007, Pub.L.No.110-140
7. Implementing Instructions - Sustainable Locations for Federal Facilities
8. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
9. National Environmental Policy Act (NEPA)
10. Resource Conservation and Recovery Act (RCRA)
11. Knowledge Services Network (KSN)
12. FedCenter and The Whole Building Design Guide (WBDG) Websites

D. Definitions

See Appendix E to this Guidance for a full listing of terms and definitions applicable to HPSB. Set forth below are some of the most commonly used terms and definitions applicable to sustainability.

- **Energy Intensity** - energy consumption per square foot of building space, including industrial or laboratory facilities (EO 13514, Section 19(f)).
- **Environmental** - environmental aspects of internal agency operations and activities, including those aspects related to energy and transportation functions (EO 13514, Section 19(g)).
- **Sustainability** - to create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirement of present and future generations of Americans (EO 13423, Section 9 and EO 13514, Section 19(l)).

E. Operation and Maintenance

The Guiding Principles (HPSB APPENDIX) include standards for both building construction and major renovation as well as for the operation and maintenance (O&M) of buildings and space. The O&M program for leased buildings should be monitored by the Lessor throughout the lease term and O&M information provided to the RECO to ensure it conforms to the O&M requirements of the Guiding Principles.

F. Tracking and Reporting Sustainability Compliance

Tracking and reporting on agency progress towards reaching the sustainable buildings goals is a requirement of EOs 13423 and 13514 and EISA 432. To leverage existing resources related to real property management, sustainable building inventory data is reported in the Federal Real Property Profile (FRPP) database via FRPP data element #25 "Sustainability". In order to select "Yes (1)" for data element #25, the new, existing or non-GSA leased building must meet the Guiding Principles (HPSB APPENDIX). The rate of building conformance to the Guiding Principles is reported by the Department of Transportation (DOT) to Office of Management and Budget (OMB) annually with mid-year progress updates via the Sustainability Scorecard.

1. Tools to use for Reporting:

The following are the systems and tools that must be used to report data on HPSB in order to meet the requirements of EOs 13514 and 13423 and EISA:

1. Real Estate Management System (REMS) - Submit the Federal Real Property Portfolio (FRPP) annually as well as additional information on buildings that meet the criteria for HPSB. Users are assigned and managed by ALO-300.
2. Energy Star Portfolio Manager - Generates a Guiding Principle checklist for reporting HPSBs for FAA. For all leased buildings, the Lessor is required to use this tool to track progress towards meeting the Guiding Principles. The Energy Star Portfolio Manager GP checklist should be provided to the RECO.

Also, the Energy Star Portfolio Manager can help FAA track and report on its progress in acquiring leased Energy Star buildings. Federal agencies assessing their existing building inventory against the Guiding Principles for HPSBs can use the Guiding Principles Checklist. Access the Guiding Principles Checklist from the [Energy Star](#) website.

Real Estate Guidance :

Section 2.4.16.4 : HPSB Appendix D: HPSB Definitions

Agency - an executive agency as defined in section 105 of title 5, United States Code, excluding the Government Accountability Office (EO 13514, Section 19(a)).

Energy Intensity - energy consumption per square foot of building space, including industrial or laboratory facilities (EO 13514, Section 19(f)).

Environmental - environmental aspects of internal agency operations and activities, including those aspects related to energy and transportation functions (EO 13514, Section 19(g)).

Sustainability and Sustainable - to create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and

other requirement of present and future generations of Americans (EO 13423, Section 9 and EO 13514, Section 19(I)).

Zero-Net-Energy Building - a building that is designed, constructed, and operated to require a greatly reduced quantity of energy to operate, meet the balance of energy needs from sources of energy that do not produce greenhouse gases, and therefore result in no net emissions of greenhouse gases and be economically viable (EO 13514, Section 19(o)).

Commissioning - A quality focused process for enhancing the delivery of a project. The process focuses upon verifying and documenting that the facility and all of its systems and assemblies are planned, designed, installed, tested, operated, and maintained to meet the Owner's Project Requirements.

ReCommissioning - An application of the Commissioning Process requirements to a project that has been delivered using the Commissioning Process. This may be a scheduled recommissioning developed as part of an Ongoing Commissioning Process, or it may be triggered by use change, operations problems, or other needs.

RetroCommissioning - The Commissioning Process applied to an existing facility that was not previously commissioned. This guideline does not specifically address retrocommissioning. However, the same basic process needs to be followed from Pre-Design through Occupancy and Operations to optimize the benefits of implementing the Commissioning Process philosophy and practice.

Real Estate Guidance :

Section 2.4.16.3 : HPSB Appendix C: Frequently Asked Questions on Guiding Principles

Question	Resolution
Can the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (Guiding Principles) be revised?	Executive Order (EO) 13423 Implementing Instructions provide the Interagency Sustainability Working Group (ISWG) the authority to modify the Guiding Principles. The Implementing Instructions reads: "The ISWG shall review the Guiding Principles and Technical Guidance periodically for updates and to consider adopting additional principles or goals addressing issues such as conservation plantings, integrated pest management, deconstruction, and siting."
Can certification of the building by a third party organization be required?	It is beyond the scope of the Guiding Principles to designate or require certification by a rating system. The EO specifically refers to meeting the Guiding Principles. A preference for third party certification developed by an American National Standards Institute (ANSI) accredited organization is included in the guidance, but is not a requirement. However, utilizing LEED and other green building rating systems as a tool to help meet and verify compliance with the Guiding Principles is highly encouraged.

Can any level of LEED certification, at any time in the past or future, equate to meeting the Guiding Principles?	Historical US Green Building Council Leadership in Energy and Environmental Design (LEED) certification and future LEED certification where registration occurred prior to October 1, 2008 will be accepted as meeting the Guiding Principles. The EO requires sustainable buildings to meet the Guiding Principles. The original intent of the Guiding Principles was to set minimal design expectations for high performing buildings. Although LEED certification offers documentation of green design, it doesn't necessarily meet the minimal expectations of the Guiding Principles.
Why do the green building rating systems need to be developed by "ANSI-accredited organizations"?	The National Technology Transfer and Advancement Act (NTTAA) of 1995 requires Federal agencies and departments to use technical standards that are developed or adopted by voluntary consensus standards bodies. The wording that refers to "ANSI-accredited organizations" is intended to meet the NTTAA requirement and allow for the use of only legitimate third-party green building rating systems. Additional guidance is pending, as the Energy Independence and Security Act (EISA) requires the Department of Energy (DOE), in consultation with the General Services Administration (GSA) and the Department of Defense (DOD), to issue further guidance on viable rating systems and levels of certification.
Do agencies have to obtain third party independent verification and validation (IV&V) of their building data if expertise exists within the agency?	In instances where an agency is reporting compliance under Options NC-1, EB-1, or L-1, internal agency verification will suffice where the agency has established an IV&V process. In instances where an agency is reporting compliance under Options NC-2, EB-2, or L-2, third party certification is required.
How will agencies or OMB verify that a building has met the Guiding Principles if it doesn't require third party certification?	To ensure the accuracy and completeness of an agency's annual Federal Real Property Profile (FRPP) submission, each agency is required to establish an independent validation and verification (IV&V) process for all data reported to the FRPP. Incorporating building sustainability into environmental management systems could fulfill this obligation and meets the intent of EO 13423. The agency IV&V process should be documented in its Sustainable Building Implementation Plan (SBIP).
Can we consider buildings that are not 100% compliant with the Guiding	As it currently stands, only those buildings that meet the intent of each Guiding Principle can be credited toward

Principles as compliant?	the 15% goal unless the building was registered prior to October 1, 2008 and is third party certified.
Will reporting on and tracking the status of an agency's buildings and progress toward the 15% sustainability goal require additional data management systems?	Sustainability compliance will be tracked and measured through the previously established FRPP database. Many agencies have existing internal systems which track additional information on the individual asset level and provide the agency's FRPP submission, however, no new databases are required.
Why are both number of buildings and square footage being tracked?	Both number and square footage of sustainable buildings are being tracked to provide a more complete picture of sustainability progress with respect to the EO goal.
How does this guidance relate to residential housing?	This guidance does not include a separate set of guiding principles for government housing; however, sustainably designed housing can be counted as part of the 15% sustainability goal if it meets the appropriate set of Guiding Principles for new construction, existing buildings, or leases. The Department of Energy is developing a rulemaking that addresses High Performance and Sustainable Buildings specific to residential housing under EAct 2005, Section 109.
How should leased buildings be addressed?	All leases are to be reported per EO 13423, including capital and operating leases. In reporting the sustainable inventory to the FRPP, the signatory agency (agency which is a party to the lease with the lessor) is responsible for reporting the building. For the occupant agency, the sustainability of the asset may be identified and reported in its SBIP.
Why do the Guiding Principles reference specific versions of standards, such as American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1 2007?	Specific years are referenced because the goals included in the Guiding Principles are intended for these versions of the standards. Whether the goals will apply to future versions of the standards cannot be known, therefore the words "current standard" were not used.
Why do the Guiding Principles not reference "if life cycle cost effective" for 30% more energy efficient requirement?	The Guiding Principles are to be applied to the 15% of an agency's portfolio that are considered high performance sustainable buildings, and thus the life cycle cost effective wording is not used in the Guiding Principles, including the energy efficiency requirement.
How is commissioning addressed for existing buildings?	For existing buildings, there is an increased focus on retro-and re-commissioning. The requirement of "total" commissioning was taken out of both sets of Guiding Principles to allow for a more tailored approach to

	commissioning, depending on the size and complexity of the building.
How does the Guiding Principle on Energy relate to 10 CFR 433?	The energy performance guidance defined in 10 CFR 433 allows for exceptions for high energy use activities when calculating estimated energy use. The Guiding Principles use the ASHRAE 90.1-2007 standard as the baseline and method for calculating energy performance.
Why are WaterSense products referenced, given their currently limited availability?	The phrase "where available" was added to the expectation to specify WaterSense products.
How was the daylighting Guiding Principle amended for EB?	The daylighting Guiding Principle was adapted to increase the focus on lighting controls for EB. As with many of the existing building Guiding Principles, there are multiple options for compliance. Existing buildings have little control over building envelope renovations, so alternative compliance was necessary.
How does the Guiding Principle on Energy relate to 10 CFR 433?	The energy performance guidance defined in 10 CFR 433 allows for exceptions for high energy use activities when calculating estimated energy use. The Guiding Principles use the ASHRAE 90.1-2007 standard as the baseline and method for calculating energy performance.
Why are WaterSense products referenced, given their currently limited availability?	The phrase "where available" was added to the expectation to specify WaterSense products.
How was the daylighting Guiding Principle amended for EB?	The daylighting Guiding Principle was adapted to increase the focus on lighting controls for EB. As with many of the existing building Guiding Principles, there are multiple options for compliance. Existing buildings have little control over building envelope renovations, so alternative compliance was necessary.

Real Estate Guidance :

Section 2.4.16.2 : HPSB Appendix B: Guiding Principles for Federal Leadership in HPSB

I. Employ Integrated Design Principles

Integrated Design. Use a collaborative, integrated planning and design process that

- Initiates and maintains an integrated project team in all stages of a projects planning and delivery;
- Establishes performance goals for siting, energy, water, materials, and indoor environmental quality along with other comprehensive design goals; and, ensures incorporation of these goals throughout the design and lifecycle of the building; and,

- Considers all stages of the buildings lifecycle, including deconstruction.

Commissioning. Employ total building commissioning practices tailored to the size and complexity of the building and its system components in order to verify performance of building components and systems and help ensure that design requirements are met. This should include a designated commissioning authority, inclusion of commissioning requirements in construction documents, a commissioning plan, verification of the installation and performance of systems to be commissioned, and a commissioning report.

II. Optimize Energy Performance

Energy Efficiency. Establish a whole building performance target that takes into account the intended use, occupancy, operations, plug loads, other energy demands, and design to earn the Energy Star targets for new construction and major renovation where applicable. For new construction, reduce the energy cost budget by 30% compared to the baseline building performance rating per the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE) and the Illuminating Engineering Society of North America (IESNA) Standard 90.1-2004, Energy Standard for Buildings Except Low-Rise Residential. For major renovations, reduce the energy cost budget by 20% below pre-renovations 2003 baseline.

Measurement and Verification. In accordance with DOE guidelines issued under section 103 of the Energy Policy Act of 2005 (EPAct), install building level utility meters in new major construction and renovation projects to track and continuously optimize performance. Compare actual performance data from the first year of operation with the energy design target. After one year of occupancy, measure all new major installations using the Energy Star Benchmarking Tool for building and space types covered by Energy Star. Enter data and lessons learned from sustainable buildings into the High Performance Buildings Database.

III. Protect and Conserve Water

Indoor Water. Employ strategies that in aggregate use a minimum of 20% less potable water than the indoor water use baseline calculated for the building, after meeting the Energy Policy Act of 1992 fixture performance requirements.

Outdoor Water. Use water efficient landscape and irrigation strategies, including water reuse and recycling, to reduce outdoor potable water consumption by a minimum of 50% over that consumed by conventional means (plant species and plant densities). Employ design and construction strategies that reduce storm water runoff and polluted site water runoff.

IV. Enhance Indoor Environmental Quality

Ventilation and Thermal Comfort. Meet the current ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy, including continuous humidity control within established ranges per climate zone, and ASHRAE Standard 62.1-2004, Ventilation for Acceptable Indoor Air Quality.

Moisture Control. Establish and implement a moisture control strategy for controlling moisture flows and condensation to prevent building damage and mold contamination.

Daylighting. Achieve a minimum of daylight factor of 2% (excluding all direct sunlight penetration) in 75% of all space occupied for critical visual tasks. Provide automatic dimming controls or accessible manual lighting controls, and appropriate glare control.

Low-Emitting Materials. Specify materials and products with low pollutant emissions, including adhesives, sealants, paints, carpet systems, and furnishings.

Protect Indoor Air Quality during Construction. Follow the recommended approach of the Sheet Metal and Air Conditioning Contractors National Association Indoor Air Quality Guidelines for Occupied Buildings under Construction, 1995. After construction and prior to occupancy, conduct a minimum 72-hour flush-out with maximum outdoor air consistent with achieving relative humidity no greater than 60%. After occupancy, continue flush-out as necessary to minimize exposure to contaminants from new building materials.

V. Reduce Environmental Impact of Materials

Recycled Content. For EPA-designated products, use products meeting or exceeding EPA's recycled content recommendations. For other products, use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 10% (based on cost) of the total value of the materials in the project.

Biobased Content. For USDA-designated products, use products meeting or exceeding USDA's biobased content recommendations. For other products, use biobased products made from rapidly renewable resources and certified sustainable wood products.

Construction Waste. During a project's planning stage, identify local recycling and salvage operations that could process site-related waste. Program the design to recycle or salvage at least 50% construction, demolition and land clearing waste, excluding soil, where markets or on-site recycling opportunities exist.

Ozone Depleting Compounds. Eliminate the use of ozone depleting compounds during and after construction where alternative environmentally preferable products are available, consistent with either the Montreal Protocol and Title VI of the Clean Air Act Amendments of 1990, or equivalent overall air quality benefits that take into account life cycle impacts.

Real Estate Guidance :

Section 2.4.16.1 : HPSB Appendix A: Federal Leadership in HPSB MOU

Purpose: With this Memorandum of Understanding (MOU), signatory agencies commit to federal leadership in the design, construction, and operation of High-Performance and Sustainable Buildings (HPSB). A major element of this strategy is the implementation of common strategies for planning, acquiring, siting, designing, building, operating, and maintaining HPSBs. The signatory agencies will also coordinate with complementary efforts in the private and public sectors.

Background and Federal Policy: The Federal government owns approximately 445,000 buildings with total floor space of over 3.0 billion square feet, in addition to leasing an additional 57,000 buildings comprising 374 million square feet of floor space. These structures and their sites affect our natural environment, our economy, and the productivity and health of the workers and visitors that use these buildings.

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Therefore, the Federal government is committed to designing, locating, constructing, maintaining, and operating its facilities in an energy efficient and sustainable manner that strives to achieve a balance that will realize high standards of living, wider sharing of life's amenities, maximum attainable reuse and recycling of depletable resources, in an economically viable manner, consistent with Department and Agency missions. In doing so and where appropriate, we encourage the use of life cycle concepts, consensus-based standards, and performance measurement and verification methods that utilize good science, and lead to sustainable buildings.

Goals and Objectives of this MOU: Consistent with and in addition to Federal policy, statutes, executive orders and supplemental agency policies and guidance, the Parties to this MOU collaboratively seek to establish and follow a common set of sustainable Guiding Principles for integrated design, energy performance, water conservation, indoor environmental quality, and materials aimed at helping Federal agencies and organizations:

- Reduce the total ownership cost of facilities;
- Improve energy efficiency and water conservation;
- Provide safe, healthy, and productive built environments; and,
- Promote sustainable environmental stewardship.

Other Laws and Matters: This MOU is for internal management purposes of the Parties involved. It is not legally enforceable and shall not be construed to create any legal obligation on the part of any of the signatories. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity. This MOU in no way restricts the Parties from participating in any activity with other public or private agencies, organizations or individuals.

The Parties mutually recognize and acknowledge that MOU implementation will be subject to financial, technical, and other mission-related considerations. It is not intended to create any rights, benefits, or trust responsibilities, either substantive or procedural, nor is it enforceable in law by a party against the US, its agencies, its officers, or any other person.

Collaboration under this MOU will be in accordance with applicable statutes and regulations governing the respective Parties. Nothing in this MOU is intended to affect existing obligations or other agreements of the Parties.

Effective Period: This MOU will become effective upon signature. It shall remain in effect unless otherwise modified or terminated. Any Party may withdraw upon 30 days written notification to the others.

Modifications: This MOU can be modified through mutual written agreement among the Parties.

Administration: Agencies will strive to incorporate and adopt, as appropriate and practical, the Guiding Principles into existing agency policy and guidance within 180 days of signature. To assist with this effort, the Interagency Sustainability Working Group (ISWG) will provide technical guidance and updates for the Guiding Principles.

The Office of the Federal Environmental Executive will work with the ISWG and Federal Green Building Council to develop methods of reporting on progress towards this MOU in a manner that is least burdensome to the agencies. This may include incorporating reporting

into existing mechanisms, such as executive order reports; but in any case with a goal of avoiding a separate reporting process.