



DEPARTMENT OF THE NAVY
COMMANDER NAVY REGION SOUTHWEST
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SAN DIEGO, CA 92132-0058

IN REPLY REFER TO:

COMNAVREGSWINST 4101.3
N44
14 August 2000

COMNAVREGSW INSTRUCTION 4101.3

Subj: ENERGY EFFICIENT PROCUREMENT POLICY

- Ref:
- (a) Executive Order (EO) 13123 of 3 Jun 99 - Greening the Government through Efficient Energy Management
 - (b) Executive Order 13101 of 14 Sep 98 -Greening the Government through Waste Prevention, Recycling and Federal Acquisition
 - (c) Executive Order 13031 of 13 Dec 96 - Federal Alternative Fueled Vehicle Leadership
 - (d) COMNAVREGSWNOTE 11300.1, Energy Management System/Direct Digital Controls (EMS/DDC) Design and Procurement Standardization Policy of 2 Nov 99
 - (e) Buying Energy Efficient Products: Department of Energy Publication of Sep 99
 - (f) Energy Efficient Lighting: Defense Logistics Agency Publication, Volume 5 (Undated)

1. Purpose. To comply with Federal energy reduction and waste prevention goals per references (a) and (b), and for the utilization of applicable Planning and Design Policy Statements when constructing, repairing, and maintaining facilities.

2. Information.

a. Navy Region Southwest's policy is to procure energy efficient equipment and materials that are environmentally sound and of sustainable design.

b. Reference (a) requires all Federal Agencies to reduce energy consumption by 35 percent based on the 1985 baseline by the year 2010 and reduce greenhouse gases by 30 percent by 2010 compared to emission levels in 1990. The EO also requires the development of sustainable design principles, which have been embodied in NAVFAC Planning and Design Policy Statements 98-01 through 98-04. Reference (b) addresses waste elimination and reduction, recycling, and procurement of environmentally preferable products. Reference (c) requires that 75 percent of vehicles procured/leased in FY-99 or beyond shall be alternative fueled vehicles (AFV's).

3. Discussion. Energy usage and environmental pollution are inextricably intertwined. Reduction of energy usage through conservation and improved efficiency reduces operating expenses, and simultaneously reduces adverse environmental effects. Use of renewable energy also reduces pollution and is encouraged.

4. Background.

a. Reference (a) requires the application of Sustainable Building Design Principles to the siting, design and construction of new facilities and states "Agencies shall select, where life-cycle cost-effective, ENERGY STAR® and other energy efficient products when acquiring energy using products. For product groups where ENERGY STAR® labels are not yet available, agencies shall select products that are in the upper 25 percent of energy efficiency as designated by FEMP."

b. Sustainable Design Principles encompass increased energy conservation and efficiency, increased use of renewable energy, use of recycled and recyclable materials, and reduction or elimination of toxic and harmful substances in facilities and their surrounding environments, essentially bringing together the requirements of references (a) and (b) under a coordinated "whole building" concept.

c. The NAVFAC Whole Building Design Guide and Sustainable Design Policy Statements can be found on the LANTNAVFACENGCOM website, http://www.efdlant.navy.mil/Lantops_15/home.htm.

d. An excellent source of procurement information is the FEMP website, <http://www.eren.doe.gov/femp/procurement>.

e. We shall also strive to exceed the requirements of the energy efficiency standards established by the California Energy Commission for buildings and appliances. Access the Title 24 website at <http://www.energy.ca.gov/title24/index.html>. Note that incentive payments are potentially available from local utilities when projects exceed building efficiency standards by a given percentage.

f. To reduce energy consumption, we shall maximize the use of available alternative financing contracting mechanisms, including Energy Savings Performance Contracts (ESPC) and Utility Energy-Efficiency Service Contracts.

5. Scope. This instruction applies to all NRSW personnel and contractors who plan, design, specify and buy energy-using

equipment and materials, and includes both Appropriated and Non-Appropriated Activities. Organizations which are specifically impacted by the requirements of this instruction include: Fleet Industrial Supply Center, Public Works Center, Facilities Management personnel, Housing and Bachelor Quarters Managers, Navy Exchange, Morale, Welfare and Recreation Departments, Southwest Division Naval Facilities Engineering Command and Seabees.

6. Action. All commands within NRSW will, to the maximum extent possible, use the following energy and environmentally preferable products listed in reference (e); this list is not all-inclusive. It is not the intent of this instruction to require all non-complying equipment to be replaced. Rather, this instruction is intended to guide the purchase of new and replacement equipment and materials. Public Works Officers may authorize specific exceptions to the requirements of this instruction.

a. Lighting

(1) Four-foot fluorescent lamps shall be F32-T8 type with low mercury content which comply with the State of California DTSC classification as non-hazardous.

(2) Compact fluorescent lamps (CFL) with low mercury content vice incandescent lamps.

(3) Solid state electronic ballasts shall be used with fluorescent lamps.

(4) CFL task lighting.

(5) Skylighting and/or daylighting.

(6) Occupancy sensor lighting controls.

(7) High intensity discharge (HID) lamps such as Metal Halide and High Pressure Sodium with low mercury content.

(8) Street lighting and exterior security lighting shall be Low Pressure Sodium design.

(9) Light Emitting Diode (LED) exit signs with battery back-up required.

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b. Motors, Appliances and Office Equipment

(1) Premium Energy Efficient electric motors complying with NEMA MG-1 Table 12-6C efficiency standards.

(2) Gas water heaters, dryers, ovens and ranges vice electric where a gas source is available.

(3) Gas water heaters with Low NOx burners.

(4) ENERGY STAR® office equipment such as computers, monitors, fax machines and copiers.

(5) Assure that power management features, features that will secure the equipment that isn't used within a specified amount of time, i.e. sleep mode, are enabled in computers and other office equipment.

(6) ENERGY STAR® refrigerators and freezers.

(7) Digital energy management controllers for appliances with induction motors.

c. Water

(1) Horizontal axis washing machines vice conventional top loading (vertical axis) machines.

(2) Low flow toilets, urinals, showerheads and faucets.

(3) Where equipment requires water cooling, single pass (once through) cooling shall not be procured.

(4) Automatic shut off or infra-red operated faucets for high usage areas.

(5) Automatic shut-off nozzles for hoses.

d. Landscaping

(1) Low maintenance, native species, drought-tolerant landscaping.

(2) Computerized irrigation controls based on localized evapo-transpiration data.

(3) Drip irrigation where feasible.

(4) Decorative stone landscaping.

e. HVAC systems and Energy Management System/Direct Digital Controls (EMS/DDC)

(1) EMS/DDC shall be per reference (d), which requires the use of specific communication protocols in order to achieve compatibility among devices connected to the area wide EMS/DDC network.

(2) Specify HVAC units with high Seasonal Energy Efficiency Ratios(SEER).

(3) Optimize cooling tower blow-down requirements in order to minimize excess water consumption.

(4) Specify units which contain environmentally preferable, low toxicity HFC refrigerants (i.e. R-134a) vice HCFC refrigerants which are facing phase-out and have higher toxicity levels (i.e. R-123).

(5) Gas boilers and furnaces, shall be procured vice electric where a gas source is available. Note that some gas-fired equipment will require Air Pollution Control District (APCD) permitting. The office requesting the equipment procurement should consult with their serving Navy environmental office on permitting requirements.

(6) Gas boilers and furnaces shall be specified with Low NOx burners and shall comply with all APCD permit requirements.

(7) Programmable set-back thermostats for furnace controls that are not controlled by the EMS/DDC system.

f. Architectural

(1) New building siting and orientation shall consider maximum use of natural resources such as daylighting, cooling breezes, shade trees, etc.

(2) Meet or exceed the minimum requirements for thermal insulation.

(3) Efficient windows with a low overall U-factor and low Solar Heat Gain Coefficient (SHGC) as rated by the National Fenestration Rating Council (NFRC).

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(4) Utilize items which are recyclable and/or contain a high-recycled content.

(5) Low or no VOC recycled/recyclable carpet systems.

(6) Low or no VOC paints, in accordance with local APCD regulations.

(7) Non-toxic, non-hazardous cleaning solutions, adhesives.

g. Miscellaneous

(1) Where cost effective and practical, utilize alternative sources of energy such as photovoltaics and solar thermal.

(2) Comply with reference (c). Our AFV program will be managed on a regional basis, with allowance made for local constraints, e.g., lack of supporting infrastructure.

(3) NEX, MWR and CWR contracts shall require delamping of soda machines.

7. Points of contact at the Regional Energy Program Office (REPO) are Mr. John Icenhower at (619) 556-8632, Mr. Ken Decker at (619) 556-6855, and Mr. Ted Sawyer at (619) 556-8569.



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