UNITED STATES MARINE CORPS
MARINE CORPS BASE
PSC BOX 20004
CAMP LEJEUNE NC 28542-0004

11300.1K
PWD
DEC 07 2011

BASE ORDER 11300.1K

From: Commanding Officer
To: Distribution List

Subj: FACILITY ENERGY AND WATER CONSERVATION

Ref: (a) Energy Policy Act (2005)
(b) Executive Order 13423 (2007)
(c) Unified Facilities Criteria, UFC 3-400-01, Energy Conservation.
(d) National Defense Authorization Act (2007)
(e) Federal Property Management Regulations (41 CFR Ch 101)
(f) BO 11380.4E
(g) MCO P11000.9C
(h) MIL-HDBK-1190
(i) Executive Order 13514 (2009)
(j) Energy Independence and Security Act (2007)

Encl: (1) Installation Facility Energy Utilization Plan

1. Situation. To provide energy management policy, goals, and guidelines for Marine Corps Base (MCB) Camp Lejeune (CamLej), Marine Corps Air Station (MCAS) New River, and their tenants; hereafter referred to collectively as the "Installation."

2. Cancellation. BO 11300.1J.

3. Mission.

a. This Order provides policy and guidance for the Installation to effectively manage energy and comply with references (a) through (j).

b. This Order has been revised in its entirety and should be reviewed thoroughly.

4. Execution

a. Commander's Intent and Concept of Operations

(1) Commander's Intent

(a) The policy of the Installation is to support and implement the energy conservation goals and policies as directed by higher authority. Substantial improvements can be made in increasing renewable and alternative energy generation while reducing consumption of energy without any significant impact on operations, training of commands, subordinate tenants, and the supporting establishment. Because the Marine Corps "fights as it trains" they must forge a culture of energy and water efficiency which extends to the bases and stations. Energy and water resources are essential to providing the operational support necessary to sustain and enhance combat readiness of the Marine Corps and the Installation.

(b) Mandates and Goals

1. Reference (a) mandates a reduction in energy consumption per gross square foot of 20 percent below a Fiscal Year (FY) 2003 baseline value by the end of FY 2015. Reference (b) increases the goal to 30 percent reduction by the end of FY 2015.

2. Reference (b) mandates a reduction in water consumption per gross square foot of 16 percent below a FY 2007 baseline value by the end of FY 2015. Reference (c) extends the goal to 26 percent reduction in water consumption by the end of FY 2020.

3. Reference (d) mandates the increase in renewable electricity consumed to 25 percent by FY 2025.

4. Reference (e) mandates an increase in the amount of alternative energy consumed by installations to 50 percent by FY 2020.

5. Reference (f) mandates a reduction of petroleum consumption by non-tactical vehicles by 30 percent prior to FY 2020.

(2) Concept of Operations

(a) Marine Corps leadership must instill an awareness and accountability of energy, fuel, and water usage in all Installation users. Significant change in any organization cannot occur unless the Marines, Sailors, their families, and the civilian workforce are educated on the relevance of energy management to the success of the mission.

(b) Marine Corps leadership must measure and improve energy and water performance. Measuring resource usage at the Installation allows them to measure progress against goals and mandates. Moreover, linking measurement to awareness programs via metering, digital dashboards, and other mechanisms reinforces education and training efforts.

(c) Energy performance must be a primary consideration in all aspects of planning, decision making and execution of the Installation's mission. Energy planning includes conservation efforts through behavior change and physical improvements to facilities and infrastructure, and the implementation of alternative and renewable energy sources.

(d) Marine Corps leadership must demonstrate leadership by quickly and proactively adopting new technologies. Rapid transition of promising and proven technology from research and development to operational qualification is a key indicator of a robust innovation pipeline within the Marine Corps.

(e) Marine Corps leadership must ensure energy security and environmental stewardship are maintained to support the sustainment and mission of the Installation. Planning and taking steps toward total energy security enables the Installation to continue to prepare Marines for combat operations without mission interruption.

b. Subordinate Element Missions

(1) Installations and Environment Department shall:

(a) Develop and implement an Installation Facility Energy Utilization Plan (Enclosure 1) applicable to the construction, renovation, operation, and maintenance of all Installation facilities.

(b) Measure and report Installation energy and water usage at facilities in accordance with goals and mandates.

(c) Plan, program, and execute facility energy audits and resultant projects to increase energy efficiency of facilities and the generation of renewable and alternative energy in accordance with Marine Corps guidance and programs.

(d) Develop and implement a building energy monitor program.

(e) Formally designate an Installation Facility Energy Manager.

(f) Develop and conduct energy awareness programs.

(g) Minimize utility costs through demand shedding and peak shaving strategies.

(h) Include consideration of energy usage, energy conservation, and alternative energy sources in all Environmental Assessments and Environmental Impact Statements prepared under the National Environmental Policy Act (NEPA).

(i) Develop an Energy Security Plan which addresses the continuous support of critical facilities and infrastructure during a natural or manmade disaster.

(2) All Installation Departments and Tenant Commands shall:

(a) Designate a Command Energy Coordinator to coordinate unit and tenant involvement and actions as part of the Installation's overall Energy Program.

(b) Designate a building energy monitor as assigned by the unit or command occupying that facility. A list of building energy monitors shall be maintained by the corresponding Command Energy Coordinator. Building energy monitors shall be responsible for monitoring, reporting, and enforcing energy conservation matters at their designated facilities. This includes, but is not limited to, turning off lights during unoccupied periods, ensuring thermostats are set

according to this Order, reporting energy waste, reporting broken or malfunctioning facility systems, and submitting recommendations for efficiency improvements, where applicable.

(c) Procure energy-efficient equipment and products. All energy consuming equipment and products shall be energy star rated or Federal Energy Management Program (FEMP) approved. All vending machines shall meet energy star specifications. Purchase of non-efficient products is prohibited unless a written waiver is obtained from the Director, Installations & Environment Department, MCB CamLej. Requests for purchases of non-efficient products will only be considered if no product is available to meet technical needs.

(d) Develop a plan to monitor and track fuel consumption and fuel use by end item for tactical vehicles, equipment, and platforms.

5. Administration and Logistics. Not applicable.

6. Command and Signal

a. Command. This Order is applicable to MCB CamLej, MCAS New River and all tenant commands..

b. Signal. This Order is effective the date signed.

D. J. LECCE

DISTRIBUTION: A

Installation Facility Energy Utilization Plan

1. Air Conditioning

a. The air conditioning season will begin when weather patterns and temperature forecasts warrant the need for continuous cooling as determined by the Director, Installations & Environment Department, MCB Camp Lejeune (MCB CamLej). Facilities which have no natural ventilation, electronic equipment in operation, or an occupancy level which generates sustained temperatures in excess of 85 degrees Fahrenheit will be considered for early turn-on/prolonged use of air conditioning. Final determination for eligible facilities will be made by the Director of Operations Branch, Public Works Division, MCB CamLej. A list of all facilities authorized for early turn-on/prolonged use of air conditioning will be maintained by the Operations Branch, Public Works Division.

b. In accordance with reference (e), space conditioning for comfort cooling shall maintain between 76 and 80 degrees Fahrenheit dry bulb, and less than 64 degrees Fahrenheit wet bulb. During non-working hours, air conditioning may not be provided. Cooling equipment may be operated to maintain less than 70 percent Relative Humidity. Unless there is a specific requirement for ventilation, all ventilation and circulation fans shall be secured during non-working hours."

c. Window air conditioning units shall not be installed in areas with existing central air conditioning.

d. Portable cooling devices are prohibited in areas with existing central air conditioning.

e. Requests for the installation of air conditioning in previously non-air conditioned spaces should be submitted to the Commanding Officer, Marine Corps Base (Director, Operations Branch, Public Works Division, MCB CamLej) for approval/disapproval in accordance with references (f) and (g).

f. Public Works Service Desk, 451-3001/3002, shall be contacted whenever difficulties are experienced with any air conditioning system. During working hours, MCAS New River activities should call extension 449-6068.

2. Heating

a. The heating season will begin when weather patterns and temperature forecasts warrant the need for continuous heating as determined by the Director, Installations & Environment Department, MCB CamLej.

b. Per reference (e), heating season thermostats shall be set to maintain space temperatures between 65 and 70 degrees Fahrenheit. During non-working hours, the heating temperature shall be set no higher than 55 degrees Fahrenheit.

c. Space heaters are prohibited in areas with existing central heating systems. Electric resistance heating shall not be used unless no other source of heating is available.

d. Leaking steam lines and valves should be reported immediately to the Public Works Service Desk at 451-3001/3002.

e. Public Works Service Desk, 451-3001/3002, shall be contacted whenever difficulties are experienced with any central heating system. During working hours, MCAS New River activities should call 449-6068.

3. Water

a. Shower heads shall have a maximum flow rate of 1.5 gallons per minute. Facilities not equipped with these devices shall be reported by the occupant with a standard work request. Faucets shall be equipped with 0.5 gallons per minute aerator and urinals with a maximum flow rate of 0.125 gallons per flush.

b. All hoses will be equipped with self-closing nozzles.

c. Per reference (g), the maximum hot water temperatures for domestic hot water are as follows:

(1). All facilities shall be set not to exceed 140 degrees Fahrenheit for hot water storage and shall not exceed 120 degrees Fahrenheit at point of use.

(2). For laundries and galleys, hot water temperatures should be maintained to minimize energy consumption to the greatest extent possible.

d. Notify Public Works Service Desk at 451-3001/3002 whenever a leaking pipe or faucet is identified. During work hours, MCAS New River activities should call 449-6068.

4. Lighting

a. As established by reference (g), lighting levels for administrative areas shall be 50 foot-candles at work stations, 30 foot-candles in work areas and 10 foot-candles in passageways. Lighting in all other areas shall be in accordance with reference (h).

(1) Where possible, task lighting shall be used in lieu of general lighting.

(2) All lighting shall be turned off after typical working hours and during periods of non-use.

(3) Decorative and advertising lights shall be kept to a minimum.

(4) Interior security lighting shall be minimized, consistent with security requirements.

(5) Exit signs shall be of the Light Emitting Diode (LED) type and rated 10 watts or less or of a type which meets code and consumes no power.

(6) Incandescent lighting shall be identified and work request submitted for changing to a more efficient type. Installation of new incandescent lighting is strictly prohibited.

(7) Automatic "on-and-off" devices, such as motion sensors, shall be installed at appropriate locations, i.e., lounges, lavatories, kitchens, computer rooms, and other frequent unoccupied areas.

b. Exterior lighting shall be of the highest energy efficiency for the intended use. Incandescent and High Intensity Discharge lighting shall be identified for changing to a more efficient type such as induction or Light Emitting Diode lighting.

Installation of new incandescent lighting is prohibited unless a written waiver is provided by the Public Works Officer. Exterior lighting levels are to be in accordance with reference (g).

(1) General exterior lighting shall use cutoff type fixtures such that light pollution is minimized.

(2) Exterior lighting is not permitted during daylight hours. This includes ballfield lighting, area lighting, and security lighting.

(3) Photocells and/or timing devices will be installed for automatic "on-and-off" control at appropriate locations, including standing lights which are used for security purposes.

(4) Lamps shall be replaced as soon as deterioration is indicated, i.e., flickering or dim, and be kept clean.

(5) Public Works Service Desk, 451-3001/3002, will be contacted whenever problems are encountered with a lighting system. During working hours, MCAS New River activities should call 449-6068.

5. General Requirements

a. Blinds and/or curtains shall be used whenever possible to further reduce radiation heating effects.

b. All exterior doors and windows shall remain closed in all air conditioned/heated buildings.

c. All computer monitors shall be turned off (powered down) at the end of the work day. Computers are to be logged off and shutdown at end of workday if use permits.

d. During "Energy Alert" periods, Installation personnel shall follow all energy alert messages and take aggressive conservation measures to reduce energy consumption. Notification of an "Energy Alert" will be provided by a WAN email message with instructions to follow during the alert period. An "Energy Alert" will be in effect when the marginal cost of electricity, as determined by the real-time price, is greater than four times the average rate per kWh.

e. The use of individual refrigerators is prohibited.

f. Facility equipment and appliances, such as large screen televisions, which consume power in "stand-by mode" shall be disconnected from the power source during periods of non-use.

g. Each building shall have a designated building energy monitor as assigned by the command or unit occupying that facility. A list of building energy monitors shall be maintained by the corresponding G-4/S-4. Building energy monitors shall be responsible for monitoring, reporting, and enforcing energy conservation matters at the designated facility. This includes, but is not limited to, turning off lights during unoccupied periods, ensuring thermostats are set according to this order, reporting energy waste, reporting broken or malfunctioning facility systems, and submitting recommendations for efficiency improvements, where applicable.

6. Waivers to Conservation Standards. Temperature standards and utilization requirements established by this Order and higher authority are not intended to supersede bona fide energy requirements established by appropriate authority or dictated by prudent safety and hygienic practices. Request for waivers to energy standards by Tenant commands will be submitted to the Director, Installations & Environment Department, MCB CamLej with full justification and commanding officer's signature or that of his designated representative.

7. Reporting Energy and Water Waste. Anyone discovering cases of utility or energy waste through defect or negligence should report the information by telephone to the Public Works Service Desk, 451-3001/3002 during normal working hours. Cases of energy waste which impose immediate harm to personnel or damage to facilities or equipment, such as a ruptured steam or water line or fallen electrical wires, should be reported immediately, day or night, to the Public Works Service Desk at 451-3001/3002.

8. New Construction and Renovation Projects shall meet maximum energy and water efficiency and renewable energy requirements as mandated by references (a) through (j).