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Facilities Management
ENERGY CONSERVATION

FOR THE COMMANDER:

OFFICIAL:

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History. This publication is a revised Fort Leonard Wood (FLW) regulation first published 25 March 2016.

Summary. This regulation will define and direct energy-related conservation measures with an intent to further alter and shape the current culture of the installation's population, curb utility consumption while providing comfort, save utility costs, and address energy goals.

Applicability. This regulation applies to all FLW Brigades, Battalions, Companies, Detachments, Tenant Activities, Directorates, Organizations, Personnel Staff Offices and Contractors.

Proponent and execution authority. The proponent agency of this regulation is the G-4, Directorate of Public Works (DPW). The DPW's Energy Management Branch will serve as primary point-of-contact for all referenced actions called out within this regulation which require coordination with the proponent.

Supplementation. Supplementation of this regulation is prohibited without prior approval by Headquarters, United States Army Maneuver Support Center of Excellence (MSCoE).

Suggested Improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, MSCoE (ATZT-OP), Fort Leonard Wood, MO 65473-5000.

Distribution: Electronic medium only and posted on the Fort Leonard Wood Web site.

This Regulation supersedes FLW Regulation 420-3, Dated 25 March 2016

Summary of Changes

To

FLW Reg 420-3, ENERGY CONSERVATION REGULATION

FLW Reg 420-3, 25 March 2016 has undergone the following minor revisions.

- Title Page - Date and signature block are made current.
- Title Page - History. Rewritten to indicate this is not the first edition of the regulation.
- Page - Summary. Edited for clarification.
- Paragraph 2-2 - Building temperature control.
 - Subparagraph a. (1) Increased the occupied space temperature setting during heating season to 72°F for comfort.
 - Subparagraph b. (1) Lowered the occupied space temperature setting during cooling season to 74°F for comfort.
- Paragraph 2-4 - Electrical usage. Leave computers and associated equipment in stand-by mode for cybersecurity patches.
- Paragraph 2-6 - Water consumption. Corrected a type-o of targeted flow rate of restroom faucets to 1.5 gpm.
- Appendix A
 - Section I-c., Required References. Executive Order 13834 rescinded & replaced Executive Order 13693.
 - Section II-b. Related References. DoD Directive 4180.01 was mistakenly called DoD Instruction Letter 4180.01.

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Chapter 1 Introduction

1-1. Purpose

This regulation establishes command emphasis on the installation's commitment to energy and cost conservation practices. The directives included in this regulation assure that the necessary consumption of energy is done with efficient and cost-effective measures in mind, and without diminishing safety, health and quality of life standards. Effective implementation will lessen energy waste, reduce energy costs, increase installation sustainability, and aid progress toward sustainability goals of the Command Net Zero Plan.

1-2. References and forms

Required and related references and prescribed forms are listed in Appendix A.

1-3. Explanation of acronyms, abbreviations, and special terms

The acronyms, abbreviations, and special terms used in this regulation are explained in the glossary.

1-4. General

a. Efficient use of energy and water is and will remain a command priority. The immediate and direct effect of implementing this regulation is that it leads to lower utility costs. Many other direct benefits will ensue and are expected, such as meeting energy and water reduction goals set out in the referenced documents, increasing the sustainability of our installation, and striving to meet the Command Net Zero Plan.

b. Leaders are expected to get personally involved. They shall strive to be an example of exemplary behavior, set goals and objectives within their organization to reduce energy and water consumption, monitor changed behaviors and facility improvements, and expect results. Be accountable.

c. Chapter 2, Action Items, directs a number of initiatives that will directly influence energy and water reduction and serves as the installation's standard practices.

d. Implementation of this regulation not only leads to a reduction of energy and water consumption, but it supplements Fort Leonard Wood's (FLW) ability to provide a safe, secure, and reliable place to work, live and recreate, now and into the future. Quality of life will not suffer, nor will health or safety be compromised.

Chapter 2 Action Items

2-1. Building and space management

a. Energy Conservation Coordinators (ECCs).

(1) Brigade Commanders, Directors, and equivalent Senior Leaders shall appoint an ECC for their organization.

(2) ECCs shall be in a position of significance within the organization so as he/she has authority to direct compliance and avoid influence.

(3) The ECC's name, email address and office phone number shall be submitted to the proponent. Names and contact information of ECCs shall be confirmed no less than annually.

(4) Responsibilities of ECCs.

(a) Serve as the organization's liaison with the proponent.

(b) Attend energy-specific training sessions, meetings, and/or participate on councils with the proponent, as required or requested.

(c) Appoint a Building Energy Monitor (BEM) for each facility assigned to the organization.

(d) Coordinate the efforts of the BEMs, see paragraph 2-1.(b) below.

(e) Serve as the BEM if the organization has been assigned only one facility or occupies only sole-use space within a single facility.

(f) Perform other actions as specifically called out for ECCs throughout the remainder of this regulation.

b. Building Energy Monitors.

(1) BEMs may be assigned to multiple facilities, however this does not relax the BEM's responsibility for adherence to the requirements of this regulation.

(2) The BEM's name, email address and office phone number shall be submitted to the proponent. Names and contact information of BEMs shall be confirmed no less than annually.

(3) Responsibilities of BEMs.

(a) Serve as a building point-of-contact for energy-specific matters.

(b) Apply the actions and criteria contained within this regulation.

(c) Conduct a physical inspection of their assigned facility at least one time during the heating season and at least one time during the cooling season, using the checklist found in Appendix A; see paragraph 2-2.a. and 2-2.b. Checklists will be retained for a minimum of 2 years for reference.

(d) Implement procedures at the close of each business/duty day to enhance energy conservation.

(e) Investigate, recommend and/or implement energy saving initiatives. Perform self-help or initiate work requests as appropriate for items of repair that result in energy efficiency or water conservation.

(f) Collect and report facility data and/or conduct energy-related surveys, as requested.

c. Consolidate space. Commanders and leaders are to consolidate organizational functions to optimize the use of facilities and utilities. Avoid expending resources in under-utilized and unoccupied facilities; consider turning them in or sharing space. These issues are to be coordinated with the Directorate of Public Works (DPW) Real Property Office.

d. Holiday block leave (HBL).

(1) ECCs shall gather and report to the proponent a list of facilities affected by the HBL schedule.

(2) BEMs shall conduct daily inspections of the vacated facilities.

(a) Heating, ventilation, and air conditioning (HVAC) systems shall be set back or set forward, as appropriate, to an unoccupied mode.

(b) Lights in/around these facilities shall be turned off.

(c) Doors and windows shall be tightly closed.

(d) Water fixtures shall be turned off and display no evidence of leaking.

(e) Electrical cords shall be unplugged. Exceptions allowed for refrigerators and computer equipment necessary for allowing security patches.

2-2. Building temperature control; heating and cooling seasons

a. Heating season; typically from mid-October through mid-May.

(1) Occupied space temperature settings shall be 72°F.

(2) Unoccupied and night/weekend set back temperatures shall be 55°F.

b. Cooling season; typically from mid-May through mid-October.

(1) Occupied space temperature settings shall be 74°F.

(2) Unoccupied and night/weekend set forward temperatures shall be 85°F.

c. HVAC controls; systems and individual controls to include automated and programmable thermostats.

(1) No attempt shall be made to circumvent or tamper with these controls.

(2) BEMs shall enact procedures for daily manual adjustment of thermostats to comply with paragraphs 2-2 (a) and 2-2 (b) above, if automated controls or programmable thermostats are not installed.

d. Warehousing, maintenance facilities, gymnasiums, medical and dental facilities, child/youth facilities and other special-use facilities are governed by separate regulation and have varying temperature criteria. Contact the proponent or consult AR 420-1, Army Facilities Management for additional information.

e. Individual space heaters. These units are prohibited where the intent is to circumvent the heating and cooling policies outlined above. Additionally these units increase fire-safety concerns. Exceptions will be approved for medical exemptions, when cost effective energy reductions can be achieved by reducing usage of the facility's primary HVAC system, or when the facility's HVAC system cannot meet the temperature settings defined above. Requesting an exemption:

(1) Immediate supervisors or BEMs shall initiate the request.

(2) Requests shall be routed through the proponent, the DPW Energy Management Office, currently located in Building 2200B. A check of the HVAC system functionality and the available capacity to support the electrical requirement will be conducted.

(3) The Fire Department shall also conduct their own inspection and authorize the final approval based on the specifications of the equipment, and shall subsequently add this item to their building inspection checklist.

2-3. Building envelope

a. Because air infiltration contributes to energy waste and discomfort, BEMs shall inspect windows, doors, wall outlets and other wall penetrations for air leakage and for damaged or missing weather stripping, and initiate repairs as necessary.

b. Windows and exterior doors shall be closed when HVAC systems are operating normally.

c. The practice of opening windows to meet fresh air requirements is no longer necessary in newly renovated and newly constructed barracks, and shall cease.

d. Use of window tinting, miniblinds, drapes, and curtains is encouraged.

2-4. Electrical usage

a. Electrical peaks. Personnel are to minimize electrical usage during projected peaks. The proponent projects that electrical peaks will occur between 1400 – 1700 hours, from mid-June through August on days when temperatures are at/above 92°F.

b. Lighting.

(1) Incandescent lights shall be replaced with compact fluorescents (CFL), or other energy efficient lighting. Self-help carries CFLs in varying sizes and wattages.

(2) Unnecessary and impractical lights shall be turned off.

(a) Exterior lights shall be turned off during daylight hours.

(b) Only minimal security/safety lighting is necessary during the evening hours.

c. Procurement.

(1) Only Energy Star® office equipment and appliances shall be authorized and purchased. Other non-compliant equipment and appliances shall be eliminated or replaced as practical.

(2) Refrigerators are authorized in the workplace and shall be in compliance with AR 420-1. No personal refrigerators shall be authorized other than those exceptions allowed by the regulation.

(3) Personal appliances such as coffee makers, fans, radios, chargers, digital picture frames, etc., shall be turned off at the end of each day. The preference is to have such items unplugged to eliminate the consumption of stand-by power.

d. Computers and associated equipment.

(1) Computers (processing unit only) shall be left on, but logged off, at the end of each day as directed by the Network Enterprise Center (NEC).

(2) Peripheral devices, such as monitors, speakers, scanners, and external drives, shall be turned off when not in use.

(3) Copiers, printing devices, fax machines, multifunctional devices, e.g., combination printer-copier-scanner, and similar general purpose office equipment shall be in stand-by mode at the end of each day if required to receive cybersecurity software patches by the local NEC, or else turned off.

e. Classrooms and conference rooms.

(1) Monitors, smart boards, TVs, projectors, and other equipment that are prevalent in classroom and conference room settings shall be turned off, not allowed to hibernate, when not in use.

(2) Computers in classroom and conference room settings shall comply with paragraph 2-4.d., above.

2-5. Mobility fuel consumption

a. Unattended vehicles shall not be left idling.

b. Drive smaller, lighter vehicles when possible.

c. Remove excess items/weight from the vehicle.

d. Assure good running order and maintenance of the vehicles is conducted.

2-6. Water consumption

a. BEMs shall inspect water fixtures, e.g., faucets, showerheads, toilets, urinals, fountains, and outside fixtures for leakage, and initiate repairs as necessary.

b. Aerators and flushometers shall be installed so as to meet the following targeted flow rates. Maximum flow rates shown below are the current standard. If flows are greater than the maximum allowed, a repair and/or replacement request shall be initiated. See Table 1-1.

Table 1-1. Target and Maximum Flow Rates

Gallons Per Minute (gpm)	Target	Maximum
Kitchen faucets	2.0 gpm	2.2 gpm
Restroom faucets	1.5 gpm	2.0 gpm
Showerheads	2.0 gpm	2.5 gpm
Toilets	1.28 gpm	1.60 gpm
Urinals	0.5 gpm	1.0 gpm

c. Irrigation shall be kept at a minimum and never done between the hours of 0900 - 1800. Excessive saturation and wasteful runoff shall be avoided at all times.

**Appendix A
References and Forms**

Section I. Required references.

- a. Energy Policy Act of 2005 (EPAAct-05), 8 Aug 05
- b. Energy Independence and Security Act of 2007 (EISA 07), 19 Dec 07
- c. Executive Order 13834, Efficient Federal Operations, 17 May 18
- d. Army Regulation 420-1, (Army Facilities Management), 24 Aug 12

Section II. Related references.

- a. DoD Instruction Letter 4170.11, (Installation Energy Management), 11 Dec 09
- b. DoD Directive 4180.01, (DoD Energy Policy), 16 Apr 14

Section III. Prescribed forms.

Building Energy Monitor Checklist, FLW Form 2093, Dec 2019

Section IV. Referenced forms.

None

Glossary

Section I. Acronyms, abbreviations, and brevity codes.

AR

Army Regulation

BEM

Building Energy Monitor

CFL

Compact Fluorescent Light

DA

Department of Army

DPW

Directorate of Public Works

ECC

Energy Conservation Coordinator

°F

Degrees Fahrenheit

GPM

Gallons per Minute

HBL

Holiday Block Leave

HVAC

Heating, Ventilation and Air Conditioning

MSCoE

Maneuver Support Center of Excellence

NEC

Network Enterprise Center, formerly Directorate of Information Management

Section II. Special terms.

None used.